

# Chicago Transit Authority Disparity Study 2019



**CH** COLETTE  
HOLT  
& ASSOCIATES





# CHICAGO TRANSIT AUTHORITY DISPARITY STUDY

2019

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### **About the Study Team**

**Colette Holt & Associates** (“CHA”) is a national law and consulting firm specializing in disparity studies, affirmative action contracting programs, expert witness services, compliance monitoring and strategic development related to inclusion, diversity and affirmative action. Founded in 1994, it is led by Colette Holt, J.D., a nationally recognized attorney and expert. In addition to Ms. Holt, the firm consists of Steven C. Pitts, Ph. D., who serves as the team’s economist and statistician; Ilene Grossman, B.S., CHA Firm Administrator; Glenn Sullivan, B.S., CHA Director of Technology; and Victoria Farrell, MBA, CHA Assistant Principal Researcher. CHA is certified as a Disadvantaged Business Enterprise, Minority-Owned Business Enterprise and a Woman-Owned Business Enterprise by numerous agencies.

**Sandi Llano & Associates, Inc.** (“SLA”) is a Chicago-based consulting firm for Disadvantaged, Minority and Women Business programs, including outreach, program development, project monitoring and certification issues. SLA is certified as a Disadvantaged Business Enterprise and a Woman-Owned Business Enterprise by several agencies.

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# I. EXECUTIVE SUMMARY

Colette Holt & Associates (CHA) was retained by the Chicago Transit Authority (“CTA”) to perform a study in conformance with 49 C.F.R Part 26, constitutional standards and best practices for DBE programs to determine its utilization of Disadvantaged, Minority- and Women-Owned Business Enterprises (collectively “DBEs” or “D/M/WBES”); the availability of DBEs in its market area; any disparities in its wider economy between the business formation rates and receipts of DBEs and those of White male-owned firms; and evaluate whether the use of race-conscious measures is supported by the results of this analysis. We also collected anecdotal data about barriers to full and fair opportunities on the basis of race/ethnicity or gender, and evaluated CTA’s DBE programs. We were also tasked with making recommendations for the DBE programs. We analyzed contract data for federal fiscal years 2012 through 2016.

## A. Study Methodology and Data

The methodology for this study embodies the constitutional principles of *City of Richmond v. Croson*, *Adarand v. Peña*, Seventh Circuit Court of Appeals case law, U.S. Department of Transportation (“USDOT”) guidance, and best practices for designing race- and gender-conscious and small business contracting programs. The CHA approach has been specifically upheld by the federal courts. It is also the approach developed by Ms. Holt for the National Academy of Sciences that is now the recommended standard for designing legally defensible disparity studies.

We determined the Authority’s utilization of DBEs, and the availability of DBEs in the CTA’s geographic and industry market area. We then compared utilization to availability to calculate disparity ratios between those two measures for Federal Transportation Administration (“FTA”)-funded contracts and locally-funded contracts. We further analyzed disparities in the wider economy, where affirmative action is rarely practiced, to evaluate whether barriers continue to impede opportunities for minorities and women when remedial intervention is not imposed. We gathered anecdotal data on DBEs’ experiences with CTA’s DBE programs. We examined race- and gender-based barriers throughout the economy through a public meeting and focus groups with business owners and stakeholders, and interviews with agency staff. We also evaluated the CTA’s DBE programs for their effectiveness and conformance with strict constitutional scrutiny, the DBE program regulations and national standards for contracting equity programs.

Based on the results of these extensive analyses, we make recommendations for the CTA’s DBE programs.

## B. Study Findings

### 1. The Chicago Transit Authority's DBE Programs

As a recipient of US Department of Transportation (“USDOT”) funds through the Federal Transportation Administration (“FTA”), the CTA is required as a condition of receipt to implement a DBE program in compliance with 49 C.F.R. Part 26.<sup>1</sup> The Authority administers a DBE Program Plan based upon the samples and guidance from USDOT. This Plan has been approved by FTA. CTA is also required to implement a DBE program for its non-federal-aid contracts.<sup>2</sup>

CTA administers a DBE Program Plan based upon the samples and guidance issued by USDOT.<sup>3</sup> The DBE Liaison Officer (“DBELO”) reports to the CTA’s Chief Administrative Officer and is responsible for implementing all aspects of CTA’s programs. CTA’s DBELO is the Senior Manager of the Diversity Programs Department and is supported by the Department. Department staff focus on contract compliance, labor compliance and outreach planning and execution. Officials from other CTA departments, including the General Counsel, Chief Financial Officer, Vice-President-Purchasing and Warehousing, and the Chief Infrastructure Officer, assist the DBELO with program requirements. Implementation of the DBE program is accorded the same priority as compliance with all other CTA legal obligations.

CTA is a certifying member of the Illinois Unified Certification Program (“ILUCP”). CTA Diversity Program staff certify DBE firms in accordance with the DBE program certification standards and procedures.<sup>4</sup> CTA uses the ILUCP DBE Directory.

Diversity Programs Department staff participate in pre-bid meetings. They also attend project kickoff meetings to advise contractors of DBE requirements and related matters, prior to, or immediately after, a notice to proceed is issued.

CTA uses the Business to Government Now (“B2GNow”) web-based diversity software to assist with managing various aspects of its programs. B2GNow provides contractors with a user-friendly, web-based service for monthly reporting payments rendered to all subcontractors. Contractors receive reporting notices by electronic mail and click the link to access the system and

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1. 49 C.F.R. §§ 26.3 and 26.21.

2. The Regional Transportation Authority Act, 70 ILCS/3615/2.31.

3. The most current version, dated February 28, 2018, is under review by the FTA.

4. At CTA’s discretion, a DBE firm may be required to undergo an enhanced review process to confirm that the firm’s majority owner(s) continue to meet the eligibility requirements for DBE certification. Part 26 requires that it do so if there is a reasonable basis to conclude that the firm no longer meets Part 26 eligibility requirements.

enter payments made to a list of prescribed subcontractors. CTA also has procured the certification, outreach and contract goal setting modules. By utilizing B2GNow, CTA is able to ensure that its compliance and reporting meets DBE program requirements.<sup>5</sup>

As part of its Program Plan, CTA is required to submit a triennial DBE goal to FTA. Pending the results of the current Study, CTA has submitted a proposed interim goal and methodology to FTA for Federal Fiscal Year 2019. CTA has established an overall DBE goal of 26 percent, with eight percent to be achieved through race-neutral means and 18 percent through race-conscious means.<sup>6</sup> CTA will submit an amended triennial goal to FTA based on the Study results, if necessary.

CTA uses contract goals to meet any portion of its overall DBE goal it projects it will not be able to meet using race-neutral means. If race-neutral means prove insufficient, contract-specific goals will be established to assist CTA in achieving its overall DBE goal. Contract goals are established only on CTA contracts that lend themselves to subcontracting opportunities. CTA sets the goals based upon the location of the work and the availability of DBEs to perform the work.

Detailed Instructions to Bidders in CTA's solicitation specifications provide the requirements for the DBE programs. DBE Special Conditions address relevant definitions; the DBE contract goal; how to locate eligible DBEs; standards for crediting DBE participation; procurement and bidding forms to be submitted; joint ventures; procedures between contract award and execution; how to document the bidder's good faith efforts if the DBE contract goal was not met; good faith efforts reconsideration; prompt payment requirements; reporting changes to work committed to by DBEs; and consequences of non-compliance.<sup>7</sup>

All DBE information must be submitted at the time the bid is due. This includes a Disadvantaged Business Enterprise Utilization Certification form. A bidder must either meet the contract goal or document its Good Faith Efforts ("GFEs") to do so. If the apparent low bidder fails to make adequate GFEs, the firm may request administrative reconsideration before the contract is awarded.

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5. 49 C.F.R. § 26.37 requires that DBE programs incorporate a monitoring and enforcement mechanism to ensure that work committed to DBEs at contract award or subsequently as the result of contract modification is actually performed by the DBEs to which the work was committed.
  6. Under 49 C.F.R. § 26.5, "race-neutral" refers to means or measures used to assist all small businesses, and "race-conscious" refers to measures or programs focused specifically on DBEs.
  7. All substitutions or removals of DBEs listed on the contract require advance notice to the DBELO.

During the life of the contract, Diversity Programs Department staff conduct on-site monitoring to ensure that work committed to a DBE is actually performed by that DBE. Under 49 C.F.R. §26.55 (c)(1), a contractor performs a Commercially Useful Function (“CUF”) when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The DBE must also be responsible, with respect to materials and supplies used on a CTA project, for negotiating price, determining quality and quantity, installing (where applicable) and paying for the material itself. CTA uses a CUF checklist and on-site observations are reconciled with DBE subcontractor agreements and certified payrolls, if necessary.

Failure to comply with DBE requirements or with DBE substitution procedures or failure to use DBEs as stated in the bid constitutes a material breach of contract. Failure by the contractor to use a subcontractor to the extent of the contractor’s commitment invokes contract remedies, including the right to damages. The DBELO has the discretion to recommend suitable contractor sanctions to CTA’s purchasing agent to be applied if the contractor is in non-compliance with DBE program requirements.

CTA engages in concerted outreach to its contractors. The agency provides information on numerous assistance agencies that work with DBEs.

CTA has adopted a race-neutral Small Business Enterprise (“SBE”) program. The SBE Program requires that applicants meet the U.S. Small Business Administration’s size standards for small businesses,<sup>8</sup> and the DBE program regulations<sup>9</sup> to establish the threshold for a small business owner to be considered economically disadvantaged. The firm must be certified as a small business by the IL UCP to participate. All certified DBEs are grandfathered into the program. The DBELO has the discretion to add additional certifying entities that meet similar personal net worth and small business size standards. The SBE Program includes two types of contracts. For all contracts greater than \$40,000 and less than \$3,000,000, the Compliance Unit reviews the number of certified SBEs (SBEs and DBEs) to determine if there is a competitive market for the specific contract. Additionally, CTA reviews the history of the contract to determine the amount of past DBE participation. If CTA decides the contract is appropriate, it is set aside for bidding only by SBEs. The CTA can also require that on designated larger construction contracts, the prime contractors must identify portions of work to be subcontracted only to small businesses, including DBEs.

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8. 13 C.F.R. Part 121 *et seq.*

9. 49 C.F.R. § 26.67.

CTA has established a Mentor Protégé Program designed to assist DBEs with skills necessary to compete in the marketplace. Participating DBEs must have distinct, separate roles from the mentor. The prime contractor and the DBE must agree on a written plan. If a contract is procured through the CTA's request for proposal process, submission of the plan may be evaluated as part of a proposer's Diversity Outreach Plan.

## **2. Experiences with Discrimination and CTA's DBE Programs**

To explore the impacts of the CTA's DBE programs, we interviewed 100 individuals about their experiences and solicited their suggestions for changes.

### *Biased perceptions of competency and stereotypical attitudes*

Many minority and female owners reported that they still suffer from biased perceptions and stereotypes about their competency and professionalism. Several interviewees reported that racism, sexism and unconscious bias limit their opportunities and adversely affect their businesses. Prime contracts were especially hard to obtain. One strategy employed by minorities and women was to present a White or male face on the firm.

### *Sexual harassment and assault*

Sexual harassment and even assault remain a problem for women. Experiences ranged from requests for sex in exchange for contracts to physical assault in a business setting.

### *Effectiveness of CTA's DBE Program*

We interviewed business owners about how the CTA's DBE programs address these types of barriers. DBEs generally reported that the programs work well and are essential to their ability to obtain CTA contracts and associated sub-contracts. Without contract goals, most would be shut out of agency opportunities. Work outside government affirmative action contracting programs was especially difficult to achieve. Certified firm owners sometimes were frustrated that prime contractors tend to use the same firms over and over, making it hard for new firms to break into the CTA's market.

A few owners stated that being certified had not helped them obtain work.

Many minority- and women-owned engineering and professional services firms believe they are blocked from moving from the subconsultant position to serving as the prime consultant, despite the use of contract goals. CTA's very stringent experience requirements create barriers for all smaller firms that provide engineering and consulting services.

Contract size was another identified barrier to both prime contract and sub-contract opportunities.

“On-call” or task order contracts sometimes did not lead to work for subcontractors. The large firm controls who gets the work, and some certified business owners stated they had been listed but never used.

One non-DBE specialty trade contractor stated that the programs have been very detrimental to his business.

#### *DBE Program administration*

As part of its DBE program and in response to these types of concerns, CTA has implemented various program elements. For example, participants mostly reported that CTA conducts many outreach activities and these efforts are helpful in accessing information and forming relationships with prime vendors and CTA staff.

Prime contractors reported that DBEs need technical assistance to perform on CTA’s often complex and specialized projects. Some small firms found it difficult to access information about what firm was awarded the contract and the proposed subcontractors. A designated ombudsperson was one way to assist firms to navigate through the CTA bureaucracy and ensure that DBEs are included in discussions. Training for prime vendors on DBE compliance was suggested by both vendors and CTA staff to ensure that bidders meet requirements and do not inadvertently violate regulations and policies

A bonding and financing program was another idea to assist small firms to do business with CTA. Prime contractors agreed that DBEs and small firms need assistance with financing CTA’s jobs.

There was support for an SBE setaside, similar to CTA’s current SBE program. A mentor-protégé program was another measure recommended widely; participants were unaware of CTA’s recent inclusion of such an element in its proposals for mega-projects.

Slow payments were reported by many firms, both prime contractors and subcontractors. This seemed to be mostly a problem of payment from CTA to the prime contractor. Slow payment especially affects DBEs and small firms and increases the burdens of compliance for general contractors. Some DBEs have been paid before the prime contractor has been paid by CTA.

Although not always easy, most prime vendors reported they have been able to meet CTA’s DBE goals. DBEs can be harder to work with because of their size, lack of experience, challenges with working capital and/or non-union status. The complexity of many CTA projects poses special challenges to prime firms. The Illinois Unified Certification Program’s DBE Directory was reported

to be less than an ideal vehicle to find qualified DBEs. Vendors in industries other than construction and related services sometimes found it difficult to meet the contract goals. The size of many CTA contracts means the prime contractor must push its lower tier subcontractors to assist the prime to meet the goal through additional lower tier utilization so as to achieve the percentage on the overall job. Several prime bidders reported that if they cannot meet the goal, they do not submit bids. Documenting their Good Faith Efforts to meet the goal was either too burdensome or too risky, given their perception that no waivers would be granted.

### 3. Utilization and Availability Analyses for CTA

Strict constitutional scrutiny and the DBE program regulations require that CTA limit its race-based remedial program to firms doing business in its product and geographic markets. CHA therefore analyzed contract data for federal fiscal years (“FFYs”) 2012 through 2016 for the CTA’s federal aid and locally-funded contracts. This delineation was to assist the CTA with meeting its obligations for goal submission under 49 C.F.R. Part 26 and state law. The Final Contract Data File for analysis contained 1,275 FTA contracts, with a total award amount of \$1,052,366,256 and 408 locally-funded contracts, with a total award amount of \$927,664,885. The Final Contract Data Files were used to determine the geographic and product markets for the analyses, to estimate the utilization of DBEs on FTA funded and locally-funded contracts and to calculate DBE availability in CTA’s marketplace by funding source and contract type.

We first determined the CTA’s product market for each funding source. The following tables present the NAICS codes, the label for each NAICS code, and the industry percentage distribution of spending across NAICS codes, by type of contract. Chapter IV provides tables disaggregated by dollars paid to prime contractors and dollars paid to subcontractors on contracts with subcontracting opportunities.

#### a. FTA-Funded Contracts

**Table 1-1: Industry Percentage Distribution of Contracts by Dollars Paid for FTA Contracts**

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
236220	Commercial and Institutional Building Construction	10.8%	10.8%
423830	Industrial Machinery and Equipment Merchant Wholesalers	9.4%	20.2%
336120	Heavy Duty Truck Manufacturing	7.6%	27.7%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
237310	Highway, Street, and Bridge Construction	7.4%	35.1%
541330	Engineering Services	7.1%	42.2%
811111	General Automotive Repair	6.6%	48.8%
238210	Electrical Contractors and Other Wiring Installation Contractors	6.2%	55.1%
541310	Architectural Services	6.1%	61.2%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	5.9%	67.1%
238220	Plumbing, Heating, and Air-Conditioning Contractors	4.3%	71.4%
238910	Site Preparation Contractors	3.0%	74.5%
238140	Masonry Contractors	2.7%	77.2%
238120	Structural Steel and Precast Concrete Contractors	2.2%	79.4%
237990	Other Heavy and Civil Engineering Construction	2.0%	81.4%
541512	Computer Systems Design Services	1.8%	83.3%
236210	Industrial Building Construction	1.7%	85.0%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	1.5%	86.5%
238350	Finish Carpentry Contractors	1.1%	87.6%
238110	Poured Concrete Foundation and Structure Contractors	1.1%	88.7%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	1.0%	89.7%
<b>TOTAL</b>			<b>100.0%<sup>a</sup></b>

a. An additional 112 NAICS codes contained 10.3% of all net CTA spending to all contractors. Appendix A4.1 contains the entire list of NAICS codes (including these 112) and the total contract dollars each code received.

Source: CHA analysis of CTA data.

To determine the relevant geographic market area for each funding source, we applied the well accepted standard of identifying the firm locations that account for at least 75 percent of contract and subcontract dollar payments in the contract data file.<sup>10</sup> Location was determined by ZIP code and aggregated into counties as the geographic unit.

The state of Illinois has 96.9% of all contract dollars in the unconstrained product market. Table 1-2 presents how this spending is distributed across 8 counties in the state. These 8 counties constituted the geographic market for the study.

**Table 1-2: Distribution of Contracts in Chicago Transit Authority's Unconstrained Product Market for FTA-Funded Contracts**

State/County	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
Cook	81.78%	81.78%
Lake	10.60%	92.38%
Dupage	4.21%	96.59%
Kankakee	1.07%	97.66%
Will	1.03%	98.69%
Grundy	0.68%	99.37%
McHenry	0.36%	99.73%
Kane	0.21%	99.94%
Kendall	0.04%	99.98%
Dekalb	0.02%	100.00%
<b>TOTAL</b>		<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data.

Having determined the CTA's product and geographic market area for FTA-funded contracts (and, therefore, the agency's *constrained* product market), the next step was to determine the dollar value of the agency's utilization of DBEs<sup>11</sup> as measured by payments to prime firms and subcontractors and disaggregated by race and gender. The CTA did not collect data for all non-DBE subcontractors, as well as other records critical for the study. We therefore had to obtain missing data from prime vendors, a lengthy process, as well as reconstruct other contract records, including researching the race and gender ownership of subcontractors and assigning NAICS codes to those firms.

10. National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/14346>. ("National Disparity Study Guidelines")

11. We use the term "DBEs" to include firms owned by racial or ethnic minorities and white females that are not certified as DBEs under 49 C.F.R. Part 26. This casts the "broad net" required by the courts, as discussed in Chapter II.

Table 1-3 presents the distribution of contract dollars by all industry sectors. Chapter IV provides detailed breakdowns of these results.

**Table 1-3: Distribution of FTA-Funded Contract Dollars by Race and Gender  
(share of total dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
236210	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
236220	0.0%	0.5%	0.0%	0.0%	6.7%	7.3%	92.7%	100.0%
237310	0.0%	2.8%	0.0%	0.0%	2.0%	4.8%	95.2%	100.0%
237990	56.9%	0.0%	21.8%	0.0%	4.5%	83.1%	16.9%	100.0%
238110	53.8%	28.2%	0.0%	0.0%	17.3%	99.3%	0.7%	100.0%
238120	7.7%	2.6%	0.0%	0.0%	45.1%	55.5%	44.5%	100.0%
238140	70.5%	0.0%	0.0%	0.0%	16.3%	86.7%	13.3%	100.0%
238160	28.1%	21.9%	0.0%	0.0%	1.9%	51.9%	48.1%	100.0%
238210	12.5%	5.4%	0.7%	0.0%	24.6%	43.2%	56.8%	100.0%
238220	2.6%	2.2%	0.0%	0.0%	4.6%	9.4%	90.6%	100.0%
238320	5.3%	49.6%	14.6%	0.0%	17.0%	86.5%	13.5%	100.0%
238350	0.0%	31.7%	0.0%	0.0%	63.0%	94.7%	5.3%	100.0%
238910	0.2%	5.9%	2.2%	0.0%	0.8%	9.2%	90.8%	100.0%
238990	1.2%	32.0%	0.0%	0.0%	19.3%	52.5%	47.5%	100.0%
336120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423830	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423860	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541310	3.7%	0.9%	14.4%	0.0%	5.4%	24.3%	75.7%	100.0%
541330	7.7%	5.0%	7.6%	0.0%	13.4%	33.7%	66.3%	100.0%
541512	0.3%	0.0%	99.7%	0.0%	0.0%	100.0%	0.0%	100.0%
811111	0.0%	0.0%	0.0%	0.0%	41.2%	41.2%	58.8%	100.0%
811310	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
<b>Total</b>	<b>5.9%</b>	<b>2.7%</b>	<b>4.2%</b>	<b>0.0%</b>	<b>9.8%</b>	<b>22.6%</b>	<b>77.4%</b>	<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data.

Using the “custom census” approach to estimating availability and the further assignment of race and gender using the Master Directory and other sources, we determined the aggregated availability of DBEs, weighted by the CTA’s spending in its geographic and industry markets, to be 19.0 % for FTA-funded contracts. Table 1-4 presents the weighted availability data for all product sectors combined for the racial and gender categories. These estimates should form the basis for CTA’s annual goal setting submission to FTA.

**Table 1-4: Aggregated Weighted Availability for FTA-Funded Contracts**

Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
4.8%	4.5%	2.7%	0.1%	6.9%	19.0%	81.0%	100.0%

Source: CHA analysis of Chicago Transit Authority data; Hoovers; CHA Master Directory

We performed similar analyses for locally- funded contracts as detailed in the tables below.

**b. Non-FTA-Funded Contracts**

**Table 1-5: Industry Percentage Distribution of Contracts by Dollars Paid for Locally-Funded Contracts, All Contracts**

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
441310	Automotive Parts and Accessories Stores	28.5%	28.5%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	18.3%	46.8%
238210	Electrical Contractors and Other Wiring Installation Contractors	9.2%	56.0%
446110	Pharmacies and Drug Stores	8.4%	64.4%
237310	Highway, Street, and Bridge Construction	5.8%	70.2%
236220	Commercial and Institutional Building Construction	2.4%	72.5%
561320	Temporary Help Services	1.9%	74.5%
541511	Custom Computer Programming Services	1.8%	76.3%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	1.8%	78.1%
541613	Marketing Consulting Services	1.4%	79.5%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238160	Roofing Contractors	1.3%	80.7%
238290	Other Building Equipment Contractors	1.3%	82.0%
<b>TOTAL</b>			<b>100.0%<sup>a</sup></b>

a. An additional 101 NAICS codes contained 18.0% of all net CTA spending to all contractors. Appendix D contains the entire list of NAICS codes (including these 23) and the total contract dollars each code received.

Source: CHA analysis of Chicago Transit Authority data

The state of Illinois captured 96.5% of the unconstrained product market dollars. Table 1-6 indicates the four counties that captured 97.5% of the state dollars and, therefore, constituted the geographic market.

**Table 1-6: Distribution of Contracts in Chicago Transit Authority's Unconstrained Product Market for Locally-Funded Contracts**

State/County	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
Cook	69.609%	69.609%
Grundy	21.507%	91.117%
Lake	2.999%	94.115%
Dupage	1.992%	96.107%
Will	1.645%	97.753%
Madison	1.300%	99.053%
Kane	0.863%	99.916%
Kendall	0.079%	99.995%
Kankakee	0.005%	100.000%
<b>TOTAL</b>		<b>100.0%<sup>a</sup></b>

a. One contract was awarded to a Grundy County firm in NAICS code 424720.

Source: CHA analysis of Chicago Transit Authority data

**Table 1-7: Distribution of Locally-Funded Contract Dollars by Race and Gender  
(share of total dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
236220	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
237310	0.5%	1.5%	0.0%	0.0%	1.4%	3.5%	96.5%	100.0%
237990	23.9%	0.0%	0.0%	0.0%	0.0%	23.9%	76.1%	100.0%
238120	9.6%	64.3%	0.0%	0.0%	11.7%	85.7%	14.3%	100.0%
238140	99.7%	0.3%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
238160	86.4%	0.0%	0.0%	0.0%	0.0%	86.4%	13.6%	100.0%
238210	16.0%	26.7%	0.0%	0.0%	2.7%	45.4%	54.6%	100.0%
238220	0.0%	3.4%	0.4%	0.0%	7.3%	11.2%	88.8%	100.0%
238290	1.1%	0.0%	18.0%	0.0%	5.2%	24.3%	75.7%	100.0%
238320	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
238350	2.7%	45.8%	0.0%	0.0%	39.0%	87.5%	12.5%	100.0%
238910	17.5%	12.1%	0.0%	0.0%	30.1%	59.6%	40.4%	100.0%
238990	2.7%	27.7%	1.1%	0.5%	21.8%	53.9%	46.1%	100.0%
332322	5.7%	3.6%	0.0%	0.0%	0.0%	9.3%	90.7%	100.0%
336510	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423860	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
424720	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
441310	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
446110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
484220	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
541420	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
541511	0.0%	0.0%	79.3%	0.0%	0.0%	79.3%	20.7%	100.0%
541613	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
561320	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
561612	89.5%	0.0%	0.0%	0.0%	0.0%	89.5%	10.5%	100.0%
561720	89.8%	0.0%	0.0%	0.0%	0.0%	89.8%	10.2%	100.0%
562910	96.4%	0.0%	1.5%	0.0%	0.0%	97.8%	2.2%	100.0%
<b>Total</b>	<b>6.6%</b>	<b>3.4%</b>	<b>0.8%</b>	<b>0.0%</b>	<b>3.8%</b>	<b>14.7%</b>	<b>85.3%</b>	<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data

**Table 1-8: Aggregated Weighted Availability for Locally-Funded Contracts**

Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
4.0%	3.4%	1.8%	0.0%	5.6%	14.8%	85.2%	100.0%

*Source: CHA analysis of Chicago Transit Authority data; Hoovers; CHA Master Directory*

Similar to the process for FTA-funded contracts, these estimates should form the basis for CTA’s annual goal setting for locally-funded contracts.

#### **4. Analysis of Economy-Wide Race and Gender Disparities in the CTA’s Market**

We explored the Census Bureau data and literature relevant to how discrimination in the CTA’s industry market and throughout the wider economy affects the ability of minorities and women to fairly and fully engage in the CTA’s prime contract and subcontract opportunities.

We analyzed the following data and literature:

Data from the Census Bureau’s Survey of Business Owners indicate very large disparities between M/WBE firms and non-M/WBE firms when examining the sales of all firms, the sales of employer firms (firms that employ at least one worker), or the payroll of employer firms.

Data from the Census Bureau’s American Community Survey (“ACS”) indicate that Blacks, Hispanics, Native Americans, Asian/Pacific Islanders, Others, and White women were underutilized relative to White men. Controlling for other factors relevant to business outcomes, wages and business earnings were lower for these groups compared to White men. Data from the ACS further indicate that non-Whites and White women are less likely to form businesses compared to similarly situated White men.

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

All three types of evidence have been found by the courts to be relevant and probative of whether a government will be a passive participant in overall marketplace discrimination without some type of affirmative intervention. Taken together with anecdotal data, this is the type of proof that addresses whether, in the absence of DBE contract goals, the CTA will be a passive participant in the discriminatory systems found throughout its industry market. These economy-wide analyses are relevant and probative to whether the agency may con-

tinue to employ narrowly tailored race- and gender-conscious measures to ensure equal opportunities to access its contracts and associated subcontracts.

## 5. Recommendations for CTA's DBE Programs

The quantitative and qualitative data in this study for CTA provide a thorough examination of the evidence regarding the experiences of minority- and women-owned firms in its geographic and industry markets. As required by strict scrutiny and the DBE program regulations, we analyzed evidence of such firms' utilization by CTA as measured by dollars spent, as well as DBEs' experiences in obtaining contracts in the public and private sectors. We gathered statistical and anecdotal data to provide the agency with the evidence necessary to narrowly tailor its DBE program for federal-aid contracts, as required by 49 C.F.R. Part 26 and to narrowly tailor its DBE program for state-funded contracts, as required by state statute. Based upon the results, we make the following recommendations.

*Ensure Prompt Payment of Prime Vendors and Subcontractors:* Increase the payment schedule to a twice monthly or frontload the payment schedule to lessen the effect of slow payments. Pay the prime contractor for the work the subcontractor has satisfactorily performed, even if all the other subs and/or the prime contractor cannot yet invoice for their work or CTA has not yet approved payment for all line items. This eliminates delays that could result in extreme financial distress for small firms.

*Review Contract Specifications:* Place more contracts in the SBE program, so that like-sized firms may compete against each other. Experience requirements might be lowered because the projects will be smaller and less complex. Conduct an outside review of CTA's contract specifications by experienced transit engineers who do not do business with the agency, so as to ensure objectivity. Results of this review would be used to evaluate how to increase competition for CTA work.

*Increase the Limit for Informal Procurements and Board Approvals:* Raise the limit for informal procurements not subject to Board approval to \$100,000 or greater (e.g., \$150,000). This should reduce delays in receiving notices to proceed that create hardships for smaller firms.

*Increase Contract "Unbundling":* Unbundle projects, provide longer lead times, and simplify requirements to assist small firms to take on some CTA work, especially as prime vendors. Unbundled contracts should permit smaller firms to move from quoting solely as subcontractors to bidding as prime contractors, as well as enhance their subcontracting opportunities. Consider adding unbundling as a component in the small business elements of the DBE Pro-

gram Plan, as this approach is an approved element under 49 C.F.R. § 26.39. Unbundle some on-call contracts to lessen the impact on firms that must set aside staff and other resources in the event they are called and to increase chances that DBEs might receive them as prime vendors.

*Provide Technical Assistance and Supportive Services:* Provide additional training on issues like certified payrolls, invoicing, scheduling and how to do business with CTA. Develop training materials and presentations based on surveying DBEs about what would help them to navigate CTA's bureaucratic processes. Train bidders on DBE program compliance, particularly those firms outside the construction industry which are less familiar overall with contracting diversity requirements. Elements should include the purpose of the program; bidding requirements; processes and forms for documenting compliance; performing a commercially useful function; counting DBE participation; and contract performance standards.

*Develop a Bonding and Financing Program for DBEs:* Develop a CTA-sponsored bonding and financing assistance program for DBEs. Access to bonding and working capital are the two largest barriers to the development and success of DBEs and small firms because traditional underwriting standards have excluded them. Assistance should go beyond just providing information and could include the concept of bringing the commitment of a surety company to provide a bond for firms that have successfully completed the program. Offering this type of support for certified firms participating in the SBE program could help facilitate prime contract opportunities.

*Enhance the Small Business Enterprise Program:* CTA has adopted an SBE program as an element to its DBE Program Plan to comply with the mandate of 49 C.F.R. § 26.39 requiring small business elements in the DBE program. This approach could be enhanced by the following changes:

- Adopt detailed guidelines for which contracts should be considered for this program. Contracts with smaller dollar values (e.g., under \$250,000) or fewer scopes (e.g., those for maintenance or landscaping) or few subcontracting opportunities (e.g., those for professional services) are good candidates.
- Set an overall, annual internal, non-binding target for dollars spent with SBEs. It is useful to have an objective for managers to strive to meet. Past participation of SBEs, coupled with forecasting about upcoming opportunities, could be used as measures that would also assist with unbundling since they would include analysis of what could be segmented into small contracts.
- Conduct outreach to non-DBEs that might be eligible. It is critical that the SBE program not operate as a "stealth" race-conscious setaside. The

current lack of a mechanism to certify SBEs puts this element in regulatory and constitutional jeopardy. Given that the Illinois Unified Certification Program does not currently have an SBE application process, CTA must undertake this effort.

*Enhance the Mentor-Protégé Program:* Expand the current Mentor-Protégé efforts to provide a program not directly tied to a response to a Request for Proposals for a specific project. Such a program would be a way to increase DBEs' capacities by assisting them to move into non-traditional areas of work and/or compete in the marketplace outside the DBE program, through the provision of training and assistance from other firms. Program elements should include formal program guidelines; a CTA-approved written development plan, clearly setting forth the objectives and respective roles of the parties; a long term and specific commitment between the parties; extra credit for the mentor's use of the protégé to meet a contract goal; a fee schedule covering the direct and indirect cost for services; and regular review by the CTA of compliance.

*Increase Contract Data Collection and Program Compliance:* Use the contract goal setting module of the B2GNow data collection and monitoring system to integrate data from this study. Input all data that will be needed for future analysis and disparity studies to ensure all data files are complete. The B2GNow system could also be used to comply with the requirement that CTA fully monitor the program, including reviewing all DBE subcontracts.

*Use the Study to Set the Overall Annual DBE Goals:* Use the Study's DBE weighted availability estimates to set a triennial goal for DBE participation in its FTA-funded projects and the annual, overall DBE goal for non-federally-assisted contracts. These results can serve as the step 1 base figure under 49 C.F.R. § 26.45(c) to determine relative availability. CTA can use the statistical disparities in the rates at which DBEs form businesses to perform the Step 2 analysis required by § 26.45(d) to adjust the step 1 figure to reflect the level of DBE availability that would be expected in the absence of discrimination. However, we note that the case law in the Seventh Circuit Court of Appeals requires the goal for a race-based program to be the "plausible lower bound estimate," so any adjustment to the step 1 base figure must be very carefully considered.

*Use the Study to Set Narrowly Tailored DBE Contract Goals:* Use the highly detailed unweighted availability estimates as the starting point for narrowly tailored contract goal setting. The estimated scopes of the contract should be weighed by the availability of DBEs in those scopes, and then the result adjusted based on geography and current market conditions. This approach should be used for all contract goals, including those set for individual task order contracts, to ensure the process meets the narrow tailoring require-

ment. Additional input from user departments may be required to assist Diversity with determining the correct industry codes and the weight of the scopes of work. Develop and disseminate written procedures detailing the implementation of contract goal setting using the B2GNow system so that all contracting actors understand the methodology. This will help address the perceived lack of transparency reported by Study participants.

*Provide Scopes of Work Used to Set the Contract Goal in Bid Invitation:* Provide with the invitation for bid or request for proposal the scopes of work used by CTA to set the contract goal. This would provide guidance to prime firms on specialties on which to concentrate for making good faith efforts, as well as increase transparency of how the DBE program functions.

*Develop "Control Contracts" to Determine DBE Participation in the Absence of Goals:* Bid some contracts that CTA demines have significant opportunity for DBE participation without goals. This can illuminate whether certified firms are used or even solicited in the absence of goals, as suggested by the study data.

*Seek FTA Approval to Count DBE Certified Firms in Neighboring States for Mega Projects:* In addition to using the recently USDOT issued Handbook on compliance with DBE program for alternative contracting and procurement methods, CTA should consider seeking FTA approval to count firms that are DBE certified in neighboring states, but not with the Illinois UCP, for credit on very large projects to expand the pool of available DBEs. This approach was used successfully on billion-dollar bridge projects in the New York metropolitan area.

*Consider expanding acceptable certifications for non-FTA-funded contracts:* Accept City of Chicago and Cook County Minority-Owned Business Enterprise ("MBE") and Woman-Owned business Enterprise ("WBE") certifications for non-FTA-funded contracts. This will expand the pool of available firms, because some firms are not certified as both a DBE and a M/WBE, and the local agencies' certification criteria for business size and personal net worth are higher than the current DBE levels.

*Develop Performance Measures for Program Success:* CTA should develop quantitative performance measures for certified firms and overall success of the program to evaluate its effectiveness in reducing the systemic barriers identified by the study. In addition to meeting the overall, annual goal, possible benchmarks might be the number of bids or proposals and the dollar amount of the awards and the goal shortfall where the bidder submitted good faith efforts to meet the contract goal; the number and dollar amount of bids or proposals rejected as non-responsive for failure to make good faith efforts to meet the goal; the number, type and dollar amount of DBE substitutions during contract performance; increased bidding by certified firms; increased prime contract awards to certified firms, with special emphasis on professional

services contracts; and increased “capacity” of certified firms as measured by bonding limits, size of jobs, profitability, etc.



## II. LEGAL STANDARDS FOR DISADVANTAGED BUSINESS ENTERPRISE PROGRAMS

### A. Summary of Constitutional Standards for Contracting Affirmative Action Programs

To be legally defensible, a race-based program for government contracts must meet the judicial test of constitutional “strict scrutiny.” Strict scrutiny is the most stringent standard of judicial review. First promulgated in *City of Richmond v. J.A. Croson Co.*, the strict scrutiny test is comprised of two elements:

- The government must establish its “compelling interest” in remedying race discrimination by current “strong evidence” of the persistence of discrimination. Such evidence may consist of the entity’s “passive participation” in a system of racial exclusion.

Any remedies adopted must be “narrowly tailored” to that discrimination; the program must be directed at the types and depth of discrimination identified.<sup>12</sup> The “compelling interest” prong has been met through two types of proof:

- Quantitative evidence of the underutilization of minority firms by the agency and/or throughout the agency’s geographic and industry market area compared to their availability in the market area. These are “disparity indices”, comparable to the type of “disparate impact” analysis used in employment discrimination cases.
- Qualitative evidence of race-based barriers to the full and fair participation of minority firms in the market area and in seeking contracts with the agency, comparable to the “disparate treatment” analysis used in employment discrimination cases.<sup>13</sup> Anecdotal data may consist of interviews, surveys, public hearings, academic literature, judicial decisions, and legislative reports.

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

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

13. *Id.* at 509.

- The efficacy of race-neutral remedies at overcoming identified discrimination.
- The relationship of numerical benchmarks for government spending to the availability of minority- and women-owned firms and to goal setting procedures.
- The congruence between the remedies adopted and the beneficiaries of those remedies.
- Any adverse impact of the relief on third parties.
- The duration of the program.<sup>14</sup>

In *Adarand v. Peña*,<sup>15</sup> the Supreme Court extended the strict scrutiny analysis from local governments to race-based federal enactments, including the United States Department of Transportation's ("USDOT") Disadvantaged Business Enterprise ("DBE") program for federally-assisted transportation-related contracts, applicable to the Chicago Transit Authority's ("CTA") receipt of funds from the Federal Transit Administration. The Court held that, as in the local government context, the federal government must have a compelling governmental interest for the use of race and the remedies adopted must be narrowly tailored to achieve that interest.

Most federal courts, including the Seventh Circuit, have applied the second level of review, "intermediate scrutiny" to preferences for Women-Owned Business Enterprises ("WBEs").<sup>16</sup> Intermediate scrutiny requires that a challenged law advance an important governmental interest by means substantially related to that interest.<sup>17</sup> Intermediate scrutiny is used in equal protection challenges to gender classifications. Gender-based classifications must be supported by an "exceedingly persuasive justification" and be "substantially related" to the objective.<sup>18</sup> However, several appellate courts, including the Seventh Circuit, have applied strict scrutiny to the gender-based presumption of social disadvantage in reviewing the constitutionality of the DBE program, or held that the results would be the same under strict scrutiny.<sup>19</sup> Therefore, CTA is advised to evaluate gender-based remedies under the strict scrutiny standard.

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

15. *Adarand Constructors, Inc. v. Peña*, 515 U.S. 200 (1995) ("*Adarand III*").

16. *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715, (7th Cir. 2007), cert. denied 15-1827, June 26, 2017 ("*Northern Contracting III*"); *Midwest Fence Corp. v. US Department of Transportation, Illinois Department of Transportation, Illinois State Toll Highway Authority*, 840 F.3d 932 (7th Cir. 2016) ("*Midwest Fence II*").

17. See generally, *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et. al.*, 713 F.3d 1187, 1195.

18. Cf. *United States v. Virginia*, 518 U.S. 515, 516 (1996).

19. *Northern Contracting III*, 473 F.3d at 720.; *H.B. Rowe, Inc. v. NCDOT*, 615 F. 3d 233, 242 (4th Cir. 2010); *Whitaker v. Kenosha Unified School District*, No. 16-3522 \_\_ (7th Cir. 2017).

Classifications not based on race, ethnicity, religion, national origin, or gender are subject to “rational basis” scrutiny, the least demanding level of judicial review. Rational basis means the governmental action must only be “rationally related” to a “legitimate” government interest. Courts have held there are no equal protection implications under the Fourteenth Amendment for groups not subject to systemic discrimination.<sup>20</sup> Therefore, preferences for firms owned by persons with disabilities or veteran status or located in designated geographic locations may be enacted with significantly less evidence than race- or gender-based measures to combat invidious discrimination.

Under strict scrutiny analysis, the defendant bears the initial burden of producing “strong evidence” in support of its race-conscious program.<sup>21</sup> The plaintiff must then proffer evidence to rebut the government’s case, and bears the ultimate burden of persuasion to prove that the affirmative action program is unconstitutional. “[W]hen the proponent of an affirmative action plan produces sufficient evidence to support an inference of discrimination, the plaintiff must rebut that inference in order to prevail.”<sup>22</sup> A plaintiff “cannot meet its burden of proof through conjecture and unsupported criticism of [the government’s] evidence.”<sup>23</sup>

In the challenges to the Minnesota and Nebraska DBE programs, “plaintiffs presented evidence that the data was susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.”<sup>24</sup>

When the statistical information is sufficient to support the inference of discrimination, the plaintiff must prove that statistics are flawed.<sup>25</sup> The plaintiff cannot rely upon general criticisms of studies or other evidence; it must demonstrate that the government’s proof is inadequate to meet strict scrutiny, rendering the legislation or governmental program illegal.<sup>26</sup> There is no need for formal legislative

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

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

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

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

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

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

26. *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1166 (10th Cir. 2000), *cert. granted*, 532 U.S. 941, *then dismissed as improvidently granted*, 534 U.S. 103 (2001) (“*Adarand VII*”); *Engineering Contractors II*, 122 F. 3d at 916; *Concrete Works of Colorado v. City and County of Denver*, 36 F. 3d 1513, 1522-1523 (10th Cir. 1994) (“*Concrete Works II*”); *Webster v. Fulton County, Georgia*, 51 F. Supp. 2d 1354, 1364 (N.D. Ga. 1999); *see also Wygant v. Jackson Board of Education*, 476 U.S. 267, 277-278 (1986).

findings of discrimination<sup>27</sup> nor “an ultimate judicial finding of discrimination before a [local government] can take affirmative steps to eradicate discrimination.”<sup>28</sup>

To satisfy this standard, “numerous courts have recognized that disparity studies provide probative evidence of discrimination.”<sup>29</sup> Properly performed, these studies collect statistical and anecdotal evidence necessary to support the use of race- and gender-conscious measures to combat discrimination. They are referred to as “disparity studies” because they analyze any statistical disparities between the opportunities and experiences of minority- and women-owned firms and their actual utilization compared to White male-owned businesses.

In addition to quantitative evidence, the Supreme Court has held that anecdotal evidence can be persuasive because it can bring “the cold [statistics] convincingly to life.”<sup>30</sup> Evidence about discriminatory practices engaged in by prime contractors, agency personnel, and other actors relevant to business opportunities has been found relevant regarding barriers both to minority firms’ business formation and to their success on governmental projects.<sup>31</sup> While anecdotal evidence is insufficient standing alone, “[p]ersonal accounts of actual discrimination or the effects of discriminatory practices may, however, vividly complement empirical evidence. Moreover, anecdotal evidence of a [government’s] institutional practices that exacerbate discriminatory market conditions are [sic] often particularly probative.”<sup>32</sup> “[W]e do not set out a categorical rule that every case must rise or fall entirely on the sufficiency of the numbers. To the contrary, anecdotal evidence might make the pivotal difference in some cases; indeed, in an exceptional case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough.”<sup>33</sup>

There is no requirement that anecdotal testimony be “verified” or corroborated, as befits the role of evidence in legislative decision-making, as opposed to judicial proceedings. “Plaintiff offers no rationale as to why a fact finder could not rely on the State’s ‘unverified’ anecdotal data. Indeed, a fact finder could very well conclude that anecdotal evidence need not—indeed cannot—be verified because it ‘is nothing more than a witness’ narrative of an incident told from the witness’ perspective and including the witness’ perception.”<sup>34</sup> Likewise, the Tenth Circuit held

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27. *Webster*, 51 F. Supp. 2d at 1364.

28. *Concrete Works II*, 36 F. 3d at 1522.

29. *Geyer Signal, Inc.*, 2014 W.L. 1309092 (D. Minn. 2014); *H.B. Rowe v. NCDOT*, 615 F. 3d 233 (4th Cir. 2010); *Concrete Works II*, 36 F. 3d at 1513, 1522-1523.

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

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

32. *Concrete Works II*, 36 F.3d 1513, 1120, 1530.

33. *Engineering Contractors II*, 122 F.3d 895, 926.

34. *H.B. Rowe Co., Inc. v. Tippett*, 615 F.3d 233, 249 (4th Cir. 2010).

that “Denver was not required to present corroborating evidence and [plaintiff] was free to present its own witnesses to either refute the incidents described by Denver’s witnesses or to relate their own perceptions on discrimination in the Denver construction industry.”<sup>35</sup>

High quality disparity studies also examine the elements of an agency’s program to determine whether it is sufficiently narrowly tailored. The following discussion provides the parameters for conducting studies that establish a legally defensible program for the CTA.

## **B. *City of Richmond v. J.A. Croson Co.***

In the *City of Richmond v. J.A. Croson Co.*, the U.S. Supreme Court established the constitutional parameters of permissible race-based government contracting programs. Reversing decades of longstanding law, the Court for the first time extended the highest level of judicial examination from measures designed to restrict the rights and opportunities of minorities to legislation that benefits historic victims of racial discrimination. Under strict scrutiny analysis, the government must prove there is a “compelling governmental interest” in remediating identified discrimination based on “strong evidence” and that the measures adopted to remedy that discrimination are “narrowly tailored” to that evidence. However benign the government’s motive, race is so suspect a classification that its use must pass the highest level of constitutional review.

The Court struck down the City of Richmond’s Minority Business Enterprise Plan requiring prime contractors awarded City contracts to subcontract at least 30 percent of the contract to Minority-Owned Business Enterprises (“MBEs”). The Plan allowed a firm located anywhere in the country to participate so long as it was at least 51 percent owned and controlled by citizens of the United States who are “Black, Spanish-speaking, Oriental, Indian, Eskimo, or Aleut.” The City adopted the Plan following a public hearing at which no direct evidence was presented that the City had discriminated on the basis of race in awarding contracts or that its prime contractors had discriminated against MBEs. The only evidence before the City Council was: (a) Richmond’s population was 50 percent Black yet less than one percent of prime construction contracts had been awarded to MBEs; (b) local contractors’ associations were nearly all White; (c) the City Attorney had issued an opinion concluding that the Plan was constitutional; and (d) generalized statements describing prevalent widespread race discrimination in the local, Commonwealth of Virginia, and national construction industries.

In holding that the City’s Plan violated the Equal Protection Clause, the Court applied the “strict scrutiny” standard to the race-based governmental program.

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

The Court concluded that the Plan violated both prongs of strict scrutiny because it neither served a “compelling governmental interest” nor offered a “narrowly tailored” remedy for past discrimination.

In affirming the court of appeals’ determination that the Plan was unconstitutional, Justice Sandra Day O’Connor’s plurality opinion concluded:

[A] state or local subdivision...has the authority to eradicate the effects of effects of private discrimination within its own legislative jurisdiction.... [Richmond] can use its spending powers to remedy private discrimination, if it identifies that discrimination with the particularity required by the Fourteenth Amendment... [I]f the City could show that it had essentially become a “passive participant” in a system of racial exclusion... [it] could take affirmative steps to dismantle such a system.<sup>36</sup>

Justice O’Connor indicates that without strict scrutiny there would be “no way of determining that [racial classifications] are ‘benign’ or ‘remedial’ and whether classifications are in fact motivated by illegitimate notions of racial inferiority or simple racial politics.”<sup>37</sup> The most stringent level of judicial review “smokes out” illegitimate uses of race by assuring that the legislative body is actually pursuing a goal important enough to warrant use of a highly suspect tool. Strict scrutiny seeks to expose racial stigma, and racial classifications create racial hostility where they are based on notions of racial inferiority.<sup>38</sup> Race is so suspect a basis for governmental action that more than “societal” discrimination is required to restrain racial stereotyping.

The Court did not provide a definition of “societal” discrimination or guidance concerning how to recognize the ongoing realities of history and culture in evaluating race-conscious programs. It simply asserted that:

[w]hile there is no doubt that the sorry history of both private and public discrimination in this country has contributed to a lack of opportunities for black entrepreneurs, this observation, standing alone, cannot justify a rigid racial quota in the awarding of public contracts in Richmond, Virginia.... [A]n amorphous claim that there has been past discrimination in a particular industry cannot justify the use of an unyielding racial quota. It is sheer speculation how many minority firms there would be in Richmond absent past societal discrimination.<sup>39</sup>

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36. 488 U.S. at 491-492.

37. *Id.* at 493.

38. 488 U.S. at 493.

39. *Id.* at 499.

The Court deemed the City's evidence inadequate, finding that a general assertion that there has been past discrimination in an entire industry provides no basis for a legislative body to determine the precise scope of the injury it seeks to remedy. The City could not rely on the disparity between its utilization of MBE prime contractors and its minority population, since not all minorities would be qualified to perform construction work and general population representation is irrelevant. No data were provided concerning the availability of MBEs in the relevant local market area or their utilization as subcontractors on City projects. According to Justice O'Connor, the extremely low membership in local contractors' associations could be explained by "societal" discrimination or by Blacks' lack of desire to participate as business owners in the public construction industry.

For trade association membership to be relevant, the City would have to demonstrate statistical disparities between eligible MBEs and actual membership. Justice O'Connor determined that the extremely low MBE membership in local contractors' associations could be attributed to "societal" discrimination or their lack of interest in participating as business owners in the construction industry. Moreover, the City presented no evidence concerning enforcement of its own anti-discrimination ordinance. The City could not rely on Congress' determination that there has been nationwide discrimination in the construction industry. Congress recognized that the gravity of the problem varies from market to market, and in effect was exercising its Section Five powers under the Fourteenth Amendment. A local government is further constrained under the Amendment's Equal Protection Clause. The Court stated:

[i]n the case at hand, the City has not ascertained how many minority enterprises are present in the local construction market nor the level of their participation in City construction projects. The City points to no evidence that qualified minority contractors have been passed over for City contracts or subcontracts, either as a group or in any individual case. Under such circumstances, it is simply impossible to say that the City has demonstrated a 'strong basis in evidence for its conclusion that remedial action was necessary.'"<sup>40</sup>

This analysis was applied only to Blacks. The Court emphasized that there was "absolutely no evidence" against other minorities. The "random inclusion of racial groups that, as a practical matter, may have never suffered from discrimination in the construction industry in Richmond, suggests that perhaps the City's purpose was not in fact to remedy past discrimination."<sup>41</sup>

After concluding that the City had not presented evidence to support a compelling interest in remedying discrimination, the first prong of strict scrutiny analysis, the

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40. *Id.* at 510.

41. *Id.*

Court made two observations relative to the narrowness of the remedy, the second prong of strict scrutiny analysis. First, Richmond had not considered “race-neutral” means to increase MBE participation. Second, the 30 percent quota had no basis in evidence, and was applied regardless of whether the individual MBE had suffered discrimination.<sup>42</sup> Justice O’Connor rejected the argument that individualized consideration of Plan eligibility is too administratively burdensome.

Recognizing that her opinion might be construed as eliminating categorically all race-conscious contracting efforts, Justice O’Connor asserted emphatically:

Nothing we say today precludes a state or local entity from taking action to rectify the effects of identified discrimination within its jurisdiction. If the City of Richmond had evidence before it that non-minority contractors were systematically excluding minority businesses from subcontracting opportunities, it could take action to end the discriminatory exclusion. Where there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the locality’s prime contractors, an inference of discriminatory exclusion could arise. Under such circumstances, the City could act to dismantle the closed business system by taking appropriate measures against those who discriminate based on race or other illegitimate criteria. In the extreme case, some form of narrowly tailored racial preference might be necessary to break down patterns of deliberate exclusion... Moreover, evidence of a pattern of individual discriminatory acts can, if supported by appropriate statistical proof, lend support to a local government’s determination that broader remedial relief is justified.<sup>43</sup>

While much has been written about *Croson*, it is worth stressing what evidence was and was not before the Court. First, Richmond presented *no* evidence regarding the availability of MBEs to perform as prime contractors or subcontractors and *no* evidence of the utilization of minority-owned subcontractors on City contracts.<sup>44</sup> Nor did Richmond attempt to link the remedy it imposed to any evidence specific to the Program; it used the general population of the City rather than any measure of business availability.

Some commentators have taken this dearth of any particularized proof and argued that only the most particularized proof can suffice in all cases. They leap from the Court’s rejection of Richmond’s reliance on only the percentage of Blacks

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42. See *Grutter v. Bollinger*, 539 U.S. at 336-337 (2003) (quotas are not permitted; race must be used in a flexible, non-mechanical way).

43. 488 U.S. at 509 (citations omitted).

44. *Id.* at 502.

in the City's population to a requirement that only firms that bid or have the "capacity" or "willingness" to bid on a particular contract at a particular time can be considered in determining whether discrimination against Black businesses infects the local economy.<sup>45</sup>

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

[I]t is important to remember what the *Croson* plurality opinion did and did not decide. The Richmond program, which the *Croson* Court struck down, was insufficient because it was based on a comparison of the minority population in its entirety in Richmond, Virginia (50%) with the number of contracts awarded to minority businesses (.67%). There were no statistics presented regarding the number of minority-owned contractors in the Richmond area, *Croson*, 488 U.S. at 499, and the Supreme Court was concerned with the gross generality of the statistics used in justifying the Richmond program. There is no indication that the statistical analysis performed by [the consultant] in the present case, which does contain statistics regarding minority contractors in New York City, is not sufficient as a matter of law under *Croson*.<sup>46</sup>

1. Further, Richmond made no attempt to narrowly tailor a goal for the procurement at issue that reflected the reality of the project. Arbitrary quotas, and the unyielding application of those quotas, did not support the stated objective of ensuring equal access to City contracting opportunities. The *Croson* Court said nothing about the constitutionality of flexible subcontracting goals based upon the availability of MBEs to perform the scopes of the contract in the government's local market area. In contrast, the USDOT DBE Program avoids these pitfalls. 49 CFR Part 26 "provides for a flexible system of contracting goals that contrasts sharply with the rigid quotas invalidated in *Croson*."<sup>47</sup>
1. While strict scrutiny is designed to require clear articulation of the evidentiary basis for race-based decision-making and careful adoption of remedies to address discrimination, it is not, as Justice O'Connor stressed, an impossible test that no proof can meet. Strict scrutiny need not be "fatal in fact."

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

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

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

## C. Strict Scrutiny as Applied to Federal Enactments

In *Adarand v. Peña*,<sup>48</sup> the Supreme Court again overruled longstanding law and extended Croson’s strict scrutiny analysis to federal enactments. Similar to the local government context, when evaluating federal enactments and regulations:

[t]he strict scrutiny test involves two questions. The first is whether the interest cited by the government as its reason for injecting the consideration of race into the application of law is sufficiently compelling to overcome the suspicion that racial characteristics ought to be irrelevant so far as treatment by the government is concerned. The second is whether the government has narrowly tailored its use of race, so that race-based classifications are applied only to the extent absolutely required to reach the proffered interest. The strict scrutiny test is thus a recognition that while classifications based on race may be appropriate in certain limited legislative endeavors, such enactments must be carefully adjusted and meticulously applied so that race is determinative of the outcome in only the very narrow circumstances to which it is truly relevant.<sup>49</sup>

### 1. U.S. Department of Transportation’s Disadvantaged Business Enterprise Program

To comply with *Adarand*, Congress reviewed and revised the Disadvantaged Business Enterprise (DBE) Program statute<sup>50</sup> and implementing regulations<sup>51</sup> for federal-aid contracts in the transportation industry. The program governs CTA’s receipt of federal funds from the Federal Transit Administration (“FTA”). To date, every court that has considered the issue has found the regulations to be constitutional on their face.<sup>52</sup>

These cases provide important guidance to CTA about how to narrowly tailor its DBE program for FTA-funded contracts as well as its DBE program for locally-funded contracts. For example, the Fourth Circuit noted with approval that North Carolina’s M/WBE program for state-funded contracts largely mirrored Part 26.<sup>53</sup>

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48. *Adarand III*, 515 U.S. 200 (1995).

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

50. Transportation Equity Act for the 21st Century (TEA-21), Pub. L. No. 105-178 (b)(1), 112 Stat. 107, 113.

51. 49 C.F.R. Part 26.

52. See, e.g., *Adarand VII*, 228 F.3d 1147; *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2004 U.S. Dist. LEXIS 3226 at \*64 (N.D. Ill., Mar. 3, 2004) (“*Northern Contracting I*”).

53. *H.B. Rowe Co., Inc. v. Tippett*, 615 F.3d 233, 236 (4th Cir. 2010).

All courts have held that Congress had strong evidence of widespread race discrimination in the construction industry.<sup>54</sup> Relevant evidence before Congress included:

- Disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms;
- Disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners;
- The large and rapid decline in minorities' participation in the construction industry when affirmative action programs were struck down or abandoned; and
- Various types of overt and institutional discrimination by prime contractors, trade unions, business networks, suppliers, and sureties against minority contractors.<sup>55</sup>

The Eighth Circuit Court of Appeals took a “hard look” at the evidence considered by Congress. and concluded that the legislature had:

[S]pent decades compiling evidence of race discrimination in government highway contracting, of barriers to the formation of minority-owned construction businesses, and of barriers to entry. In rebuttal, [the plaintiffs] presented evidence that the data were susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.<sup>56</sup>

Next, the regulations were facially narrowly tailored. Unlike the prior program,<sup>57</sup> Part 26 provides that:

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54. *See also Western States*, 407 F.3d at 993 (“In light of the substantial body of statistical and anecdotal material considered at the time of TEA-21’s enactment, Congress had a strong basis in evidence for concluding that—in at least some parts of the country—discrimination within the transportation contracting industry hinders minorities’ ability to compete for federally funded contracts.”).

55. *Id.*, 407 F. 3d at 992-993.

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

57. 49 C.F.R. Part 23.

- The overall goal must be based upon demonstrable evidence of the number of DBEs ready, willing and able to participate on the recipient's federally-assisted contracts.<sup>58</sup>
- The goal may be adjusted to reflect the availability of DBEs but for the effects of the DBE program and of discrimination.
- The recipient must meet the maximum feasible portion of the goal through race-neutral measures as well as estimate that portion of the goal it predicts will be met through such measures.
- The use of quotas and set-asides is limited to only those situations where there is no other remedy.
- The goals are to be adjusted during the year to remain narrowly tailored.
- Absent bad faith administration of the Program, a recipient cannot be penalized for not meeting its goal.

The presumption of social disadvantage for racial and ethnic minorities and women is rebuttable, "wealthy minority owners and wealthy minority firms are excluded, and certification is available to persons who are not presumptively disadvantaged but can demonstrate actual social and economic disadvantage." Exemptions and waivers from any or all Program requirements are available.<sup>59</sup> These elements have led courts to conclude that the program is narrowly tailored on its face. The regulations place strong emphasis on the use of race-neutral means to achieve minority and women participation. Relying upon *Grutter v. Bollinger*, the Eighth Circuit held that while "[n]arrow tailoring does not require the exhaustion of every conceivable race-neutral alternative... it does require serious, good faith consideration of workable race-neutral alternatives."<sup>60</sup>

The DBE Program is also flexible. The recipient can terminate race-conscious contract goals if it meets its annual overall goal through race-neutral means for two consecutive years. The enabling legislation itself is subject to Congressional reauthorization that ensures public debate.

The DBE goal setting provisions require recipients to tailor to the relevant labor markets. "Though the underlying estimates may be inexact, the exercise requires the States to focus on establishing realistic goals for DBE participation

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58. One constant of the earlier DBE program was the use of a 10 percent goal on federal contracts nationwide. In narrowly tailoring the DBE program, Congress determined that the national 10 percent goal was no longer legally defensible. Under § 26.41 of Part 26, the 10 percent goal is an aspirational goal at the national level used as a means of evaluating the overall performance of the DBE program nationwide. It does not affect goals established by DOT state and local recipients which are based on local market conditions supported by data rather than the aspirational goal.

59. *Sherbrooke*, 345 F.3d at 973.

60. *Id.* at 972.

in the relevant contracting markets. This stands in stark contrast to the program struck down in *Croson*.<sup>61</sup>

Congress also took significant steps to minimize the race-conscious nature of the DBE Program. Eligibility is limited to small firms owned by individuals whose personal net worth is under a prescribed threshold.<sup>62</sup> “[W]ealthy minority owners and wealthy minority-owned firms are excluded, and certification is available to persons who are not presumptively [socially] disadvantaged who demonstrate actual social and economic disadvantage. Thus, race is made relevant in the program, but it is not a determinative factor.”<sup>63</sup>

DBE programs based upon a methodology similar to this Study for CTA, including the availability analysis and the examination of disparities in business formation rates and business earnings of minorities and women compared to non-minority males who are similarly situated, have been held to be narrowly tailored in their application of Part 26. In upholding the Minnesota Department of Transportation’s DBE program using the same approach, the Eighth Circuit opined that while plaintiff attacked the study’s data and methods,

it failed to establish that better data was [sic] available or that Mn/DOT was otherwise unreasonable in undertaking this thorough analysis and in relying on its results. The precipitous drop in DBE participation in 1999, when no race-conscious methods were employed, supports Mn/DOT’s conclusion that a substantial portion of its 2001 overall goal could not be met with race-neutral measures, and there is no evidence that Mn/DOT failed to adjust its use of race-conscious and race-neutral methods as the year progressed, as the DOT regulations require.<sup>64</sup>

## 2. U.S. Department of Defense’s Small Disadvantaged Business Program

In 2008, the Federal Circuit Court of Appeals struck down the Department of Defense (DOD) program for Small Disadvantaged Businesses (SDBs) in *Rothe Development Corporation v. U.S. Department of Defense*.<sup>65</sup> The program set an overall annual goal of five percent for DOD contracts with SDBs and authorized various race-conscious measures to meet the goal.

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61. *Id.*

62. At the time new regulations were amended to satisfy strict scrutiny, the personal net worth limit was \$750,000. The limit was increased to \$1.32 million in 2012. It is currently adjusted by the Consumer Price Index. See 49 C.F.R. § 26.67(b)(1).

63. *Id.* at 973.

64. *Id.*

In *Rothe VII*,<sup>66</sup> the appeals court held that the program violated strict scrutiny because Congress did not have a “strong basis in evidence” upon which to conclude that DOD was a passive participant in racial discrimination in relevant markets across the country. The six local disparity studies relied upon by DOD as evidence of discrimination did not meet the compelling governmental interest requirement, and its other statistical and anecdotal evidence did not rise to the level necessary to meet the heavy constitutional burden.

Of particular relevance to this report for CTA, the primary focus of the court’s analysis was the six disparity studies. The court reaffirmed that disparity studies are relevant to compelling governmental interest analysis.<sup>67</sup> It then rejected Rothe’s argument that data more than five years old must be discarded: “We decline to adopt such a *per se* rule here....[The government] should be able to rely on the most recently available data so long as that data is reasonably up-to-date.”<sup>68</sup>

In the absence of expert testimony concerning accepted econometric models of discrimination, the court was troubled by the failure of five of the studies to account for size differences and “qualifications” of minority firms in the denominator of the disparity analysis, or as the court termed it, “relative capacity.”<sup>69</sup> The court was concerned about the studies’ inclusion of possibly “unqualified” minority firms and the failure to account for whether a firm can perform more one project at a time in two of the studies.<sup>70</sup> In the court’s view, the combination of these perceived deficits rendered these studies insufficiently probative to meet Congress’ burden.

The appellate court ignored the analyses in the cases upholding the USDOT’s DBE Program and the City of Denver’s local affirmative action contracting program where the fallacy of “capacity” was debunked, all of which were cited extensively by the district court. It relied on a report issued by the United States Commission on Civil Rights adopting the views of anti-affirmative action commentators, including Rothe’s consultant.<sup>71</sup>

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65. *Rothe Development Corporation v. U.S. Department of Defense*, 545 F.3d 1023 (Fed. Cir. 2008) (“*Rothe VII*”). We note that the jurisdiction of the Court of Appeals for the Federal Circuit is limited to the jurisdiction described in 28 U.S.C. §§ 1292 (c) and (d) and 1295. Pursuant to 28 U.S.C. § 1295(a)(2), jurisdiction in *Rothe* was based upon the plaintiff’s claim under the Tucker Act, 28 U.S.C. § 1346(a)(2), which governs contract claims against the United States.

66. This opinion was the latest iteration of an eleven-year-old challenge by a firm owned by a White female to the DOD’s award of a contract to an Asian American-owned business despite the fact that plaintiff was the lowest bidder.

67. *Rothe VII*, 545 F. 3d at 1037-1038.

68. *Id.* at 1038-1039.

69. *Id.* at 1042.

70. *Ibid.*

71. See U.S. Commission on Civil Rights, *Disparity Studies as Evidence of Discrimination in Federal Contracting* (May 2006).

However, the court carefully limited the reach of its review to the facts of the case:

To be clear, we do *not* hold that the defects in the availability and capacity analyses in these six disparity studies render the studies wholly unreliable for any purpose. Where the calculated disparity ratios are low enough, we do not foreclose the possibility that an inference of discrimination might still be permissible for *some* of the minority groups in some of the studied industries in *some* of the jurisdictions. And we recognize that a minority-owned firm’s capacity and qualifications may themselves be affected by discrimination. But we hold that the defects we have noted detract dramatically from the probative value of these six studies, and, in conjunction with their limited geographic coverage, render the studies insufficient to form the statistical core of the “strong basis in evidence” required to uphold the statute.<sup>72</sup>

The Federal Circuit concluded its compelling interest analysis by “stress[ing] that [its] holding is grounded in the particular terms of evidence offered by DOD and relied on by the district court in this case, and should not be construed as stating blanket rules, for example, about the reliability of disparity studies.”<sup>73</sup> Given its finding that Congress lacked a strong basis in evidence for the DOD program, the court did not rule on whether its provisions were narrowly tailored. However, it did note that in its previous rulings the program is flexible, limited in duration, and not overly burdensome to third parties, and that the program has tended to narrow the reach of its remedies over time.<sup>74</sup>

## D. Narrowly Tailoring CTA’s Disadvantaged Business Enterprise Programs

Congress and the Illinois General Assembly have already determined that there is a compelling governmental interest in adopting a DBE program for those respective funding sources. CTA’s task is to ensure that its implementation of the programs is narrowly tailored.

Federal courts have repeatedly considered the following factors in determining whether race-based remedies are narrowly tailored to achieve their objective:

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72. *Rothe VII*, 545 F. 3d at 1045.

73. *Rothe VII*, 545 F. 3d at 1049.

74. *Id.* at 1049.

- The efficacy of race-neutral remedies at overcoming identified discrimination;
- The relationship of numerical benchmarks for government spending to the availability of minority- and women-owned firms and to subcontracting goal setting procedures;
- The flexibility of the program requirements, including the provision for good faith efforts to meet goals and contract specific goal setting procedures;

The congruence between the remedies adopted and the beneficiaries of those remedies; It is imperative that remedies not operate as fixed quotas.<sup>75</sup> Programs that do not allow waivers for firms that fail to meet contract goals but document good faith efforts to do so have not survived strict scrutiny analysis. The Court in *Croson* refers approvingly to the contract-by-contract waivers used in the DBE program.<sup>76</sup> The waiver provision of the program serves as a safeguard and has been central to the conclusion that the DBE program meets the narrow tailoring prong of strict scrutiny.”<sup>77</sup>

## **1. Establish Narrowly Tailored Goals**

### **a. Set Overall, Annual DBE Goals**

The DBE program requires that CTA use the two-step Part 26 goal-setting process to establish its overall triennial goal for FTA-funded contracts.<sup>78</sup> The goal must be based upon the relative availability of DBEs and must reflect the level of DBE participation that would be expected in the absence of discrimination.

- Step 1 is to determine the base figure for DBE availability, and one approved method is the use of data from a valid applicable disparity study.<sup>79</sup>
- Step 2 is to examine of all available evidence in the recipient’s jurisdiction to determine whether adjustments, up or down, are needed to be made to the base figure to arrive at the overall goal. CTA must consider the current capacity of DBEs as measured by the

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75. Under § 26.43 of Part 26, quotas are not permitted on USDOT-assisted contracts, and set-asides may be used only in limited and extreme circumstances, “when no other method could be reasonably expected to redress egregious instances of discrimination.”

76. *See, for example, Builders Association of Greater Chicago v. City of Chicago*, 298 F. Supp. 2d at 740 (Waivers are rarely or never granted....The City program is a rigid numerical quota....formulistic percentages cannot survive strict scrutiny.”).

77. *See, for example, Sherbrooke*, 345 F. 3d at 972.

78. CTA is required to establish an overall goal for DBE participation on its FTA-funded contracts. While CTA must set the goal every three years, it must monitor DBE participation every year.

79. 49 C.F.R. §26.45 (c)(3).

volume of work DBEs have performed in recent years.<sup>80</sup> The agency may consider evidence from related fields such as statistical evidence of disparities in financing, bonding and insurance and data on employment, self-employment, etc.<sup>81</sup> “If you attempt to make an adjustment to your base figure to account for the continuing effects of past discrimination (often called the “but for” factor) or the effects of an ongoing DBE program, the adjustment must be based on demonstrable evidence that is logically and directly related to the effect for which the adjustment is sought”<sup>82</sup>

- The final result is to be expressed as a percentage of all FTA funds (exclusive of funds to be used for the purchase of transit vehicles). The “overall goals must provide for participation by all certified DBEs and must not be subdivided into group-specific goals.”<sup>83</sup> Public participation and public notice are mandated.

Goal setting, however, is not an absolute science.<sup>84</sup> “Though the underlying estimates may be inexact, the exercise requires the States to focus on establishing realistic goals for DBE participation in the relevant contracting markets. This stands in stark contrast to the program struck down in *Crosson*.”<sup>85</sup>

To perform Step 1—estimating the base figure of DBE availability—the study must conduct the following analyses. First, it must empirically establish the geographic and product dimensions of its contracting and procurement market area. This is a fact driven inquiry; it may or may not be the case that the market area is the government’s jurisdictional boundaries.<sup>86</sup> A commonly accepted definition of geographic market area for disparity studies is the locations that account for at least 75 percent of the agency’s contract and subcontract dollar payments.<sup>87</sup> Likewise, the accepted approach is to analyze those detailed industries that make up at least 75 percent of the

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80. 49 C.F.R. § 26.45(d)(1)(i).

81. 49 C.F.R. § 26.45(d)(2).

82. 49 C.F.R. § 26.45(d)(3).

83. 49 C.F.R. § 26.45(h).

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

85. *Sherbrooke*, 345 F.3d. at 972.

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

87. National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/14346>. (“*National Disparity Study Guidelines*”).

prime contract and subcontract payments for the Study period.<sup>88</sup> Second, it must calculate the availability of DBEs in CTA’s market area.

**b. Set Narrowly Tailored Contract Goals**

CTA must also establish narrowly tailored goals on particular contracts. It is well-settled case law that goals for a particular solicitation must reflect the particulars of the contract, not reiterate annual aggregate targets. Part 26 requires that CTA set contract-specific goals based upon the availability of DBEs to perform work within the contemplated scopes, including work estimated to be performed by the prime contractor of the individual contract.<sup>89</sup> This approach reduces the need to conduct good faith effort reviews as well as the temptation to create shams companies to meet unrealistic contract goals. While more labor intensive than defaulting to the annual, overall goals, there is no option to eschew narrowly tailoring program implementation because to do so would be more burdensome.

**2. Apply Race- and Gender- Neutral Remedies to the Maximum Feasible Extent**

The courts have held that race- and gender- neutral approaches are a necessary component of a legally defensible and enforceable DBE program.<sup>90 91</sup> CTA must meet the “maximum feasible portion” of its overall goal using race-neutral measures.<sup>92</sup> Means other than contract goals are designed to encourage the participation of all small businesses, not just DBEs, in CTA’s contracting process. Failure to consider such remedies has proven fatal to some programs.

Difficulty in accessing procurement opportunities, restrictive bid specifications, excessive experience requirements, and overly burdensome insurance and bonding requirements, for example, might be addressed by CTA without resorting to the use of contract goals. Effective remedies such as unbundling of contracts into smaller units, providing technical support, and establishing programs to address issues of financing, bonding, and insurance are important

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88. *Id.* at pp. 50-51.

89. 49 C.F.R. § 26.51 (e)(2).

90. *Croson*, 488 U.S. at 507 (Richmond considered no alternatives to race-based quota); *Contractors Association of Eastern Pennsylvania v. City of Philadelphia*, 91 F.3d 586, 609 (3rd Cir. 1996) (“*Philadelphia III*”) (City’s failure to consider race-neutral alternatives was particularly telling); *Webster*, 51 F. Supp. 2d at 1380 (for over 20 years County never seriously considered race-neutral remedies); *cf. Aiken*, 37 F. 3d at 1164 (failure to consider race-neutral method of promotions suggested a political rather than a remedial purpose).

91. *See, e.g., Florida A.G.C. Council, Inc. v. State of Florida*, Case No. : 4:03-CV-59-SPM at 10 (N. Dist. Fla. 2004) (“There is absolutely no evidence in the record to suggest that the defendants contemplated race-neutral means to accomplish the objectives” of the statute”).

92. 49 C.F.R. § 26.51 (a).

to all small disadvantaged and emerging businesses. As *Croson* indicates, governments have a duty to ferret out and punish discrimination against minorities and women by their contractors, staff, lenders, bonding companies or others.<sup>93</sup>

CTA must also estimate the portion of the goal it predicts it will meet through race-neutral and race-conscious measures (*i.e.*, contract goals).<sup>94</sup> This requirement has been central to the holdings that the DBE regulations meet narrow tailoring.<sup>95</sup>

One marker of the need to use contract goals to meet the annual goal is the results of solicitations without contract goals.

Courts have held that such outcomes are an excellent indicator of whether discrimination continues to impact opportunities in public contracting. Evidence of race and gender discrimination in relevant “unremediated”<sup>96</sup> markets provides an important indicator of what level of actual DBE participation can be expected in the absence of goals.<sup>97</sup> The court in the Chicago case held that the “dramatic decline in the use of M/WBEs when an affirmative action program is terminated, and the paucity of use of such firms when no affirmative action program was ever initiated,” was proof of the City’s compelling interest in employing race- and gender-conscious measures.<sup>98</sup>

Narrow tailoring does not require that every race-neutral approach must be implemented and then proven ineffective before race-conscious remedies may be utilized.<sup>99</sup> While an entity must give good faith consideration to race-neutral alternatives, “strict scrutiny does not require exhaustion of every possible such alternative...however irrational, costly, unreasonable, and unlikely to succeed such alternative might be... [S]ome degree of practicality is subsumed in the exhaustion requirement.”<sup>100</sup>

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

94. 49 C.F.R. § 26.45 (f) (3).

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

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

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

98. *BAGC v. Chicago*, 298 F. Supp.2d 725, 737 (N.D. Ill. 2003); *see also Concrete Works IV*, 321 F.3d at 987-988.

99. *Grutter*, 529 U.S. at 339.

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

### 3. Ensure Flexible Goals and Requirements

It is imperative that remedies not operate as fixed quotas.<sup>101</sup> A DBE program must provide for contract awards to firms who fail to meet the contract goals but make good faith efforts to do so.<sup>102</sup> Further, firms that meet the goals cannot be favored over those who made good faith efforts. Part 26 contains extensive provisions regarding the standards and processes for establishing good faith efforts.<sup>103</sup> In *Croson*, the Court refers approvingly to these contract-by-contract waivers.<sup>104</sup> This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.<sup>105</sup>

### 4. Evaluate the Burden on Third Parties

Narrow tailoring requires that CTA evaluate whether the program unduly burdens non-DBEs.<sup>106</sup> The burden of compliance need not be placed only upon those firms directly responsible for the discrimination. “Innocent” parties can be made to share some of the burden of the remedy for eradicating racial discrimination.<sup>107</sup> The proper focus is whether the burden on third parties is “too intrusive” or “unacceptable.”

Burdens must be proven and cannot constitute mere speculation by a plaintiff.<sup>108</sup> “Implementation of the race-conscious contracting goals for which TEA-21 provides will inevitably result in bids submitted by non-DBE firms being rejected in favor of higher bids from DBEs. Although this places a very real burden on non-DBE firms, this fact alone does not invalidate TEA-21. If it did, all affirmative action programs would be unconstitutional because of the burden upon non-minorities.”<sup>109</sup>

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101. See 49 C.F.R. 26.43 (quotas are not permitted and set-aside contracts may be used only in limited and extreme circumstances “when no other method could be reasonably expected to redress egregious instances of discrimination”).
  102. See, e.g., *BAGC v. Chicago*, 298 F. Supp.2d at 740 (“Waivers are rarely or never granted...The City program is a rigid numerical quota...formulistic percentages cannot survive strict scrutiny.”).
  103. 49 C.F.R. § 26.53 and Appendix A.
  104. 488 U.S. at 508; see also *Adarand VII*, 228 F.3d at 1181.
  105. See, e.g., *Sherbrooke*, 345 F.3d. at 972.
  106. See *Engineering Contractors Assoc. of South Florida, Inc. v. Metropolitan Dade County*, 943 F.Supp. 1546, 1581-1582 (S.D. Fla. 1996) (“*Engineering Contractors I*”) (County chose not to change its procurement system).
  107. *Concrete Works IV*, 321 F.3d at 973; *Wygant*, 476 U.S. at 280-281; *Adarand VII*, 228 F.3 at 1183 (“While there appears to be no serious burden on prime contractors, who are obviously compensated for any additional burden occasioned by the employment of DBE subcontractors, at the margin, some non-DBE subcontractors such as *Adarand* will be deprived of business opportunities”); cf. *Northern Contracting II*, at \*5 (“Plaintiff has presented little evidence that it [sic] has suffered anything more than minimal revenue losses due to the program.”).
  108. See, e.g., *Rowe*, 615 F.3d at 254 (prime bidder had no need for additional employees to perform program compliance and need not subcontract work it can self-perform).
  109. *Western States*, 407 F.3d at 995.

To address this factor, the DBE regulations specifically provide that if a grantee determines that DBEs are “so overconcentrated in a certain type of work as to unduly burden the opportunity of non-DBE firms to participate in this type of work, you must devise appropriate measures to address this overconcentration.”<sup>110</sup>

## 5. Regularly Review the Effects of the Programs

The courts require that race-based programs must have duration limits and “not last longer than the discriminatory effects it is designed to eliminate.”<sup>111</sup> The DBE Program’s periodic review by Congress has been repeatedly held to provide adequate durational limits.<sup>112</sup> Further, CTA must submit regular reports to FTA and the General Assembly. If CTA determines it will exceed its goal, it must reduce or eliminate the use of contract goals to the extent necessary to ensure that their use does not result in exceeding the overall goal.<sup>113</sup>

The legal test for data is the “most recent available data.”<sup>114</sup> How old is too old is not definitively answered, but CTA would be wise to conduct a study at least once every five or six years.

## E. Cases from the Seventh Circuit Court of Appeals

Three cases from the Seventh Circuit Court of Appeals that governs the state of Illinois illustrate almost all of these principles and have provided significant guidance to other circuits and agencies across the country.

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

The City of Chicago relied upon the types and quality of evidence discussed above in establishing its strong basis in evidence for its M/WBE program designed to remedy discrimination against Black-, Hispanic- and women-owned construction firms.<sup>115</sup> However, the program as implemented in 2003, which had not been reviewed since its inception in 1990, was not sufficiently narrowly tailored to meet strict constitutional scrutiny. The court stayed the final order against operation of the Program for construction contracts for six months, to permit the City to review the ruling and adopt a new program.<sup>116</sup>

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110. 49 C.F.R. § 26.33(a).

111. *Adarand III*, 515 U.S. at 238.

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

113. 49 C.F.R. § 26.51(f)(2).

114. *Rothe VII*, 545 F.3d at 1038-1039.

115. *BAGC v. Chicago*, 298 F. Supp.2d 725 (N.D. Ill. 2003).

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

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

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

Further, while it is somewhat unclear whether disparities for Asians and Hispanics result from discrimination or the language and cultural barriers common to immigrants, there were two areas “where societal explanations do not suffice.” The first is the market failure of prime contractors to solicit M/WBEs for non-goals work. Chicago’s evidence was consistent with that presented of the effects of the discontinuance or absence of race-conscious programs throughout the country. Not only did the plaintiff fail to present credible alternative explanations for this universal phenomenon, but also this result “follows as a matter of economics... [P]rime contractors, without any discriminatory intent or bias, are still likely to seek out the subcontractors with whom they

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

have had a long and successful relationship... [T]he vestiges of past discrimination linger on to skew the marketplace and adversely impact M/WBEs disproportionately as more recent entrants to the industry... [T]he City has a compelling interest in preventing its tax dollars from perpetuating a market so flawed by past discrimination that it restricts existing M/WBEs from unfettered competition in that market.”<sup>117</sup>

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

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

- There was no meaningful individualized review of M/WBEs’ eligibility;
- There was no sunset date for the ordinance or any means to determine a date;
- The graduation threshold of \$27.5M was very high and few firms have graduated;
- There was no personal net worth limit;
- The percentages operated as quotas unrelated to the number of available firms;
- Waivers were rarely granted;
- No efforts were made to impact private sector utilization of M/WBEs; and
- Race-neutral measures had not been promoted, such as linked deposit programs, quick pay, contract downsizing, restricting prime contractors’ self-performance, reducing bonds and insurance requirements, local bid preferences for subcontractors and technical assistance.

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

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

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

In this challenge to the constitutionality of the DBE program, the Seventh Circuit Court of Appeals affirmed the district court's trial verdict that the Illinois Department of Transportation's application of Part 26 was narrowly tailored.<sup>118</sup> IDOT had a compelling interest in remedying discrimination in the market area for federally-funded highway contracts, and its DBE Plan was narrowly tailored to that interest and in conformance with the regulations.

To determine whether IDOT met its constitutional and regulatory burdens, the court reviewed the evidence of discrimination against minority and women construction firms in the Illinois area. IDOT had commissioned an Availability Study to meet Part 26's requirements. The IDOT Study included a custom census of the availability of DBEs in IDOT's market area, weighted by the location of IDOT's contractors and the types of goods and services IDOT procures. The Study estimated that DBEs comprised 22.77 percent of IDOT's available firms.<sup>119</sup> It next examined whether and to what extent there are disparities between the rates at which DBEs form businesses relative to similarly situated non-minority men, and the relative earnings of those businesses. If disparities are large and statistically significant, then the inference of discrimination can be made. Controlling for numerous variables such as the owner's age, education, and the like, the Study found that in a race- and gender-neutral market area the availability of DBEs would be approximately 20.8 percent higher, for an estimate of DBE availability "but for" discrimination of 27.51 percent.

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

- An Availability Study conducted for Metra, the Chicago-area commuter rail agency;
- Expert reports relied upon in *BAGC v. Chicago*;
- Expert reports and anecdotal testimony presented to the Chicago City Council in support of the City's revised M/WBE Procurement Program ordinance;
- Anecdotal evidence gathered at IDOT's public hearings on the DBE program;

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118. *Northern Contracting III*, 473 F.3d 715. Ms. Holt authored IDOT's DBE goal submission and testified as IDOT's expert witness at the trial.

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

- Data on DBE involvement in construction projects in markets without DBE goals;<sup>120</sup> and
- IDOT's "zero goal" experiment, where DBEs received approximately 1.5 percent of the total value of the contracts. This was designed to test the results of "race-neutral" contracting policies, that is, the utilization of DBEs on contracts without goals.

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

The stark disparity in DBE participation rates on goals and non-goals contracts, when combined with the statistical and anecdotal evidence of discrimination in the relevant marketplaces, indicates that IDOT's 2005 DBE goal represents a "plausible lower-bound estimate" of DBE participation in the absence of discrimination... Plaintiff presented no persuasive evidence contravening the conclusions of IDOT's studies, or explaining the disparate usage of DBEs on goals and non-goals contracts... IDOT's proffered evidence of discrimination against DBEs was not limited to alleged discrimination by prime contractors in the award of subcontracts. IDOT also presented evidence that discrimination in the bonding, insurance, and financing markets erected barriers to DBE formation and prosperity. Such discrimination inhibits the ability of DBEs to bid on prime contracts, thus allowing the discrimination to indirectly seep into the award of prime contracts, which are otherwise awarded on a race- and gender-neutral basis. This indirect discrimination is sufficient to establish a compelling governmental interest in a DBE program... Having established the existence of such discrimination, a governmental entity has a compelling interest in assuring that public dollars, drawn from the tax contributions of all citizens, do not serve to finance the evil of private prejudice.<sup>121</sup>

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

121. *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2005 U.S. Dist. LEXIS 19868 (Sept. 8, 2005), at \*82 (internal citations omitted) ("*Northern Contracting II*"); see *Croson*, 488 U.S. at 492.

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

Most recently, the challenge to the DBE regulations, IDOT's implementation of those regulations and its DBE program for state-funded contracts, and to the Illinois Tollway's<sup>122</sup> separate DBE program was rejected.<sup>123</sup>

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

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

Midwest's main objection to the defendants' evidence was that it failed to account for "capacity" when measuring DBE availability and underutilization. However, as is well established, "Midwest would have to come forward with "credible, particularized evidence" of its own, such as a neutral explanation for the disparity, or contrasting statistical data. [citation omitted] Midwest fails to make this showing here."<sup>124</sup> Midwest offered only conjecture about how the defendants' studies supposed failure to account for capacity may or may not have impacted the studies' results. Plaintiff "fail[ed] to provide any independent statistical analysis or other evidence demonstrating actual bias."<sup>125</sup>

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

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

124. *Id.* at \*17.

125. *Id.* at \*18.

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

method of goal setting is identical to that prescribed by the Federal Regulations, which this Court has already found to be supported by "strong policy reasons." [citation omitted] Although the Tollway is not beholden to the Federal Regulations, those policy reasons are no different here... [W]here the Tollway Defendants have provided persuasive evidence of discrimination in the Illinois road construction industry, the Court finds the Tollway Program's burden on non-DBE subcontractors to be permissible... The Tollway's race-neutral measures are consistent with those suggested under the Federal Regulations. See, 49 U.S.C. § 26.51. The Court finds that the availability of these programs, which mirror IDOT's, demonstrates 'serious, good faith consideration of workable race-neutral alternatives.' [citations omitted] In terms of flexibility, the Tollway Program, like the Federal Program, provides for waivers where prime contractors are unable to meet DBE participation goals, but have made good faith efforts to do so... Because the Tollway demonstrated that waivers are available, routinely granted, and awarded or denied based on guidance found in the Federal Regulations, the Court finds the Tollway Program sufficiently flexible. Midwest's final challenge to the Tollway Program is that its goal-setting process is "secretive and impossible to scrutinize." [reference omitted] However, the Tollway has plainly laid out the two goal-setting procedures it has employed since the program's enactment... The Tollway Defendants have provided a strong basis in evidence for their DBE Program. Midwest, by contrast, has not come forward with any concrete, affirmative evidence to shake this foundation.<sup>126</sup>

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126. *Id.* at \*22-23.



# III. CHICAGO TRANSIT AUTHORITY'S DISADVANTAGED BUSINESS ENTERPRISE PROGRAMS

This Chapter describes CTA's Disadvantaged Business Enterprise ("DBE") Program for federally-assisted and locally-funded transit contracts.<sup>127</sup> The implementation of the DBE program for both funding sources is treated similarly.<sup>128</sup> Accordingly, the following discussion refers to both DBE programs.

## A. Elements of CTA's Disadvantaged Business Enterprise Programs

As the second largest public transportation system provider in the nation, the Chicago Transit Authority ("CTA") is committed to promoting and encouraging fairness and diversity in all aspects of its business including the procurement and contracting of goods and services.

As a direct recipient of United States Department of Transportation ("USDOT") grant funds through the Federal Transit Administration ("FTA"), CTA is required as a condition of receipt to implement a DBE program in compliance with 49 C.F.R. Part 26 ("Part 26").<sup>129</sup> CTA also receives local and state funds. In brief, regardless of funding source, CTA must:

- Adopt a non-discrimination policy statement.<sup>130</sup>
- Keep and report various data to FTA, including the utilization of DBEs on its federal-aid contracts and create a bidders list of all firms bidding to CTA as prime contractors and firms bidding to those prime contractors as subcontractors.<sup>131</sup>

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127. The Regional Transportation Authority Act, 70 ILCS/3615/2.31.

128. CTA is required to comply with Part 26 as well as the Metropolitan Transit Authority Act (70 ILCS 3605) and other state laws related to CTA procurements.

129. CTA is required to administer its program in good faith under Part 26.

130. 49 C.F.R. § 26.23.

- Appoint a DBE Liaison Officer with substantial responsibilities and direct reporting to the chief executive office of the agency.<sup>132</sup>
- Make efforts to utilize minority-owned financial institutions.<sup>133</sup>
- Adopt a prompt payment mechanism for its prime contractors and for prompt payment of subcontractors by prime contractors<sup>134</sup>.
- Conduct DBE certifications in its capacity as a certifying entity of the Illinois Unified Certification Program.<sup>135</sup>
- Monitor and enforce its DBE Programs.<sup>136</sup>
- Address possible overconcentration of DBEs in certain types of work.<sup>137</sup>
- Include elements to assist small businesses, such as unbundling contracts.<sup>138</sup>

The Regional Transportation Authority Act, 70 ILCS/3615/2.31 established a DBE program for CTA contracts not covered under the federally-mandated DBE Program. The statute provides that CTA must develop narrowly-tailored DBE contract goals, closely monitor contractors' compliance, and submit annual reports to the Illinois General Assembly<sup>139</sup>.

## 1. DBE Program Administration

CTA administers a DBE Program Plan based upon the samples and guidance issued by USDOT.<sup>140</sup> The DBE Liaison Officer ("DBELO") is responsible for implementing all aspects of CTA's programs, and reports to the CTA President. CTA's DBELO is the Senior Manager of the Diversity Programs Department. The DBELO is supported by the Diversity Programs Department. Staff focuses on certification, contract compliance, labor compliance and outreach planning

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131. 49 C.F.R. § 26.11.

132. 49 C.F.R. § 26.25.

133. 49 C.F.R. § 26.27.

134. 49 C.F.R. § 26.29.

135. 49 C.F.R. § 26.31.

136. 49 C.F.R. § 26.37.

137. 49 C.F.R. § 26.33.

138. 49 C.F.R. §§ 26.39.

139. Except as authorized pursuant to its Procurement Policy and Procedures or expressly justified, all purchase orders or contracts for the purchase or sale of real property, the purchase, lease, or sale of personal property, equipment, materials or supplies, labor services or construction over \$40,000 by or on behalf of CTA is let by free and open competitive bidding. CTA ensures that only the lowest, responsive (including DBE compliant) and responsible bidders are recommended for award of contracts. Authority to enter into contracts for CTA is vested in its President, the Chairman of the Board, and their designees. CTA's policies and procedures are delineated in a comprehensive reference book made available to CTA personnel and to outside parties expressing an interest in CTA's procurement processes.

140. The most current version, dated February 28, 2018, is under review by the FTA.

and execution. Officials from other CTA departments, including the General Counsel, Chief Financial Officer, Vice-President-Purchasing and Warehousing, and the Chief Infrastructure Officer, assist the DBELO with program requirements. Implementation of the DBE program is accorded the same priority as compliance with all other CTA legal obligations.

CTA is a certifying member of the Illinois Unified Certification Program (“ILUCP”). The ILUCP is comprised of CTA, the Illinois Department of Transportation, the City of Chicago, Metra, and Pace. CTA Diversity Program staff certify DBE firms in accordance with the DBE program certification standards and procedures.<sup>141</sup> CTA uses the ILUCP DBE Directory.

Diversity Programs Department staff participate in pre-bid meetings. They also attend project kickoff meetings to advise contractors of DBE requirements and related matters, prior to, or immediately after, a notice to proceed is issued.

CTA uses the Business to Government Now (“B2GNow”) web-based diversity software to assist with managing various aspects of its programs. B2GNow provides contractors with a user-friendly, web-based service for monthly reporting payments rendered to all subcontractors. Contractors receive monthly reporting notices by electronic mail and click the link to access the system and enter payments made to a list of prescribed subcontractors. CTA also has procured the certification, outreach and contract goal setting modules. By utilizing B2GNow, CTA is able to ensure that its compliance and reporting meets DBE program requirements.<sup>142</sup>

CTA makes special efforts for its informally procured contracts ( *i.e.*, contracts less than \$40,000) to include DBEs in the pool of firms solicited using this procurement method.

## **2. DBE Program Goals**

As part of its Program Plan, CTA is required to submit a triennial DBE goal to FTA. Pending the results of the current Study, CTA has established an overall DBE goal of 26 percent, with 3 percent to be achieved through race-neutral

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141. At CTA’s discretion, a DBE firm may be required to undergo an enhanced review process to confirm that the firm’s majority owner(s) continue to meet the eligibility requirements for DBE certification. Part 26 requires that it do so if there is a reasonable basis to conclude that the firm- no longer meets Part 26 eligibility requirements.

142. 49 C.F.R. § 26.37 requires that DBE programs incorporate a monitoring and enforcement mechanism to ensure that work committed to DBEs at contract award or subsequently as the result of contract modification is actually performed by the DBEs to which the work was committed.

means and 23 percent through race-conscious means.<sup>143</sup> CTA will submit an amended triennial goal to FTA based on the Study results.

CTA uses contract goals to meet any portion of its overall DBE goal it projects it will not be able to meet using race-neutral means. If race-neutral means prove insufficient, contract-specific goals will be established to assist CTA in achieving its overall DBE goal. Contract goals are established only on CTA contracts that lend themselves to subcontracting opportunities. CTA sets the goals based upon the location of the work and the availability of DBEs to perform the work.

CTA requires each Transit Vehicle Manufacturer (“TVM”), as a condition of being authorized to bid or propose on USDOT-assisted transit vehicle procurements, to certify that it has complied with the requirements of 49 C.F.R. §26.49. In conformance with §26.49 (d), CTA may, at its discretion and with FTA approval, establish project-specific goals for DBE participation in the procurement of transit vehicles.

### **3. DBE Program Compliance**

Detailed Instructions to Bidders in CTA’s solicitation specifications provide the requirements for the DBE programs. DBE Special Conditions address relevant definitions; the DBE contract goal; how to locate eligible DBEs; standards for crediting DBE participation; procurement and bidding forms to be submitted; joint ventures; procedures between contract award and execution; how to document the bidder’s good faith efforts if the DBE contract goal was not met; good faith effort reconsideration; prompt payment requirements; reporting changes to work committed to by DBEs; and consequences of non-compliance.<sup>144</sup>

All DBE information must be submitted at the time the bid is due. For invitations to bid, documenting meeting the DBE goal or making good faith efforts (“GFEs”)<sup>145</sup> to do so is an element of responsiveness.<sup>146</sup> For all requests for proposals and letters of interest and qualifications, meeting the DBE goal or documenting GFEs is an element of responsibility.

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143. Under 49 C.F.R. § 26.5, “race-neutral” refers to means or measures used to assist all small businesses, and “race-conscious” refers to measures or programs focused specifically on DBEs.

144. All substitutions or removals of DBEs listed on the contract require advance notice to the DBELO.

145. Good Faith Efforts means “all reasonable & necessary steps ... which, by their scope, intensity, and appropriateness ... could reasonably be expected to obtain sufficient DBE participation”. See Appendix A to 49 C.F.R. Part 26.

146. A CTA bid is “responsive” when it complies in all material respects with the Invitation for Bid. A CTA bid is “responsible” when it satisfies CTA requirements for financial stability, previous performance, experience, adequacy of equipment, special or unique skills, and ability to complete performance within a specified time limit.

A bidder must submit a Disadvantaged Business Enterprise Utilization Certification form with its bid. The form requires the name of the DBE; a description of the work to be performed; and the DBE participation percentage using the total bid amount (including overhead and profit) as the denominator. Copies of each proposed DBE firm's current "Letter of Certification" or "No Change Affidavit" must be submitted with the bid.

For select awards procured using the Request for Proposals ("RFP") method, proposers may receive a bonus up to 7 percent of the proposer's base score for its Diversity Outreach Plan's commitment to DBE outreach and supportive activities and 4 percent for past DBE performance.

If the apparent low bidder fails to make adequate GFEs, the firm may request administrative reconsideration before the contract is awarded. As part of the reconsideration process, the bidder may provide written clarification or attend a scheduled meeting with CTA's Reconsideration Officer.

A bidder must, within 7 calendar days of contract award, or prior to any work being performed by any subcontractor of any tier, execute a written subcontract or purchase order with the subcontractor identified in the bid.<sup>147</sup> If a bidder cannot execute an agreement with one or more subcontractors within this timeframe, it must provide a written explanation to the Diversity Programs Department for the delay and an estimated date by which the written agreement will be completed. An executed agreement must be made available to this official upon request. Diversity Programs staff ensure that proper non-discrimination, prompt payment, and retainage<sup>148</sup> clauses are contained within the agreement.

CTA also enforces prompt payment provisions requiring that its contractor pay subcontractors no later than 14 calendar days after the contractor receives payment from the CTA.<sup>149</sup> Similarly, each tier of subcontractors must pay the next lower tier of subcontractors within 14 calendar days after receiving payment.

If the contract allows retainage, CTA will make partial payments of retainage amounts for distinct portions of work that has been satisfactorily completed. The contractor must subsequently remit to each first-tier subcontractor its share of any retainage within 14 calendar days after receipt of such retainage from CTA. Each subsequent tier of subcontractors must remit retainage to the

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147. Any changes or substitutions related to DBE firms require advance notice to the DBELO.

148. The term "retainage" refers to the portion of the agreed-upon CTA contract intentionally withheld until the contract work is substantially complete. It ensures that the contractor or subcontractor satisfies its contractual obligations.

149. In accordance with 49 C.F.R. §26.29, CTA uses a contract clause to require prime contractors to pay all subcontractors for satisfactory performance of their contracts no later than 30 days from receipt of each payment CTA makes to its prime contractor.

next lower tier of subcontractors within 14 calendar days after receiving payment. If the contract does not provide for retainage, neither contractor nor any subcontractor may withhold retainage from a subcontractor.

During the life of the contract, Diversity Programs Department staff conducts on-site monitoring to ensure that work committed to a DBE is actually performed by that DBE. Under 49 C.F.R. §26.55 (c)(1), a contractor performs a Commercially Useful Function (“CUF”) when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The DBE must also be responsible, with respect to materials and supplies used on a CTA project, for negotiating price, determining quality and quantity, installing (where applicable) and paying for the material itself. CTA uses a CUF checklist and on-site observations are reconciled with DBE subcontractor agreements and certified payrolls, if necessary.

A contractor must respond to a desk audit performed during a contract’s quarterly milestones. Requests for information may include, but are not limited to, subcontractor invoices and proof of payment (*i.e.*, cancelled check or electronic funds transfers).

Failure to comply with DBE requirements or with DBE substitution procedures or failure to use DBEs as stated in the bid constitutes a material breach of contract. Prime vendors who fall behind in meeting their goals are informed of the potential of being deemed non-responsible on future procurements. Failure by the contractor to use a subcontractor to the extent of the contractor’s commitment invokes contract remedies, including the right to damages. The parties have the right to resolve the dispute by binding arbitration before an independent arbitrator and the right to recover damages and reasonable expenses including attorneys’ fees, if the DBE is the prevailing party.

The DBELO has the discretion to recommend suitable contractor sanctions to CTA’s purchasing agent to be applied if the contractor is in non-compliance with DBE program requirements. Sanctions include, but are not limited to, withholding payment to the contractor until corrective action occurs; suspension and/or termination of the contract; and debarring or suspending the contractor from entering into future contracts with CTA. Any person may report a violation directly to the Department. CTA will bring to the attention of USDOT any false, fraudulent or dishonest conduct in connection with its DBE program.

#### **4. Program Initiatives**

CTA engages in concerted outreach to its contractors. It organizes “Meet and Greets” between certified DBE firms, potential DBEs, and potential contractors. CTA conducts educational seminars, supplier diversity events, monthly

roadshows, and informational outings. CTA also offers DBE outreach events to connect primes and subcontractors for specific projects. The agency conducted a “Battle of the Bids” as part of the annual Chicago area Interagency Transit Symposium to provide small, minority, and women-owned businesses with opportunities to network with transportation stakeholders. Its “Driving Small Businesses the Distance” initiative enables prospective DBE applicants to learn more about certification and CTA procurements.

CTA provides information on numerous assistance agencies that work with DBEs on the certification process, bidding on construction contracts, business development, technical assistance, and bid notifications. The names, addresses, and contact information for these agencies appears on CTA’s website.

In addition to race-neutral efforts such as outreach, enforcing prompt payment requirements, ensuring non-discrimination, etc., CTA also administers a Small Business Assistance Program (“SBAP”). The SBAP seeks to attract new DBE firms to participate in CTA procurements; provides opportunities for DBE firms to gain hands-on experience with CTA by performing on smaller projects; and offers DBEs training and development assistance. It also assists DBEs with skills necessary to perform in fields where DBE participation on CTA contracts has been historically low.

To comply with 49 C.F.R. §26.39’s requirement that a DBE program include an element to structure contracting requirements to facilitate competition by all small business, not just DBEs, CTA has adopted a race-neutral Small Business Enterprise (“SBE”) program. The SBE Program requires that applicants meet the U.S. Small Business Administration’s size standards for small businesses,<sup>150</sup> and the DBE program regulations<sup>151</sup> to establish the threshold for a small business owner to be considered economically disadvantaged. The firm must be certified as a small business by the CTA, Metra or Pace to participate. All certified DBEs are grandfathered into the program. The DBELO has the discretion to add additional certifying entities that meet similar personal net worth and small business size standards.

The SBE Program includes two types of contracts. For all contracts greater than \$40,000 and less than \$3,000,000, the Compliance Unit reviews the number of certified SBEs (SBEs and DBEs) to determine if there is a competitive market for the specific contract. Additionally, CTA reviews the history of the contract to determine the amount of past DBE participation. If CTA decides the contract is appropriate, it is set aside for bidding only by SBEs. The CTA can also require that on designated larger construction contracts, the prime contractors must iden-

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150. 13 C.F.R. Part 121 *et seq.*

151. 49 C.F.R. § 26.67.

tify portions of work to be subcontracted only to small businesses, including DBEs. Contracts will be reviewed by the DBELO before advertisement to determine if the contract will be included in the SBE Program.

CTA has established a Mentor Protégé Program designed to assist DBEs with skills necessary to compete in the marketplace. To ensure compliance with the CUF requirements of Part 26, CTA requires that participating DBE firms have distinct, separate roles from the mentor. Eligible prime contractors that wish to mentor a DBE firm must adhere to predetermined outcomes set forth in a written plan agreed to by the prime contractor and the DBE. If a contract is procured through the CTA's request for proposal process, submission of the plan may be evaluated as part of a proposer's Diversity Outreach Plan to determine the proposal most advantageous to CTA.

## **B. Experiences with Discrimination and CTA's DBE Programs**

To explore the implementation of CTA's DBE programs, we conducted a public meeting and interviewed 75 individuals about their experiences and solicited their suggestions for changes. Findings from these interviews are presented below. Quotations are indented and have been edited for readability. They are representative of the views expressed during the group interviews.

### **1. Qualitative Evidence of Race and Gender Barriers in CTA's Market**

A disparity study should explore anecdotal evidence of experiences with discrimination in contracting opportunities and the agency's DBE programs. This evidence is relevant to the determination of how best to narrowly tailor CTA's programs, including the likely efficacy of any race- and gender-neutral remedies employed by the agency. As discussed in Chapter II, this type of anecdotal data has been held by the courts to be relevant and probative of whether CTA continues to have a need to use narrowly tailored DBE contract goals to remedy the effects of past and current discrimination, and create a level playing field for contract opportunities for all firms.

To explore this type of anecdotal evidence of possible discrimination against minorities and women in CTA's geographic and industry markets and the effectiveness of its current programs, we conducted a public meeting and business owner and stakeholder interviews, totaling 100 participants. We met with a broad cross section of business owners from CTA's geographic and industry markets. Firms ranged in size from large national businesses to established family-owned firms to new start-ups. We sought to explore their experiences

in seeking and performing public and private sector prime contracts and sub-contracts with CTA, other government agencies, and in the private sector.

Many minority and women owners reported that while some progress has been made in integrating their firms into public and private sector transportation contracting activities through race- and gender-conscious contracting programs, significant barriers remain. Race- and gender-neutral approaches alone were described as unlikely to ensure a level playing field for CTA contract opportunities.

Many minority and female owners reported that they still suffer from biased perceptions and stereotypes about their competency and professionalism.

I always feel that I have to do more than everyone else, maybe because I'm a woman. We have that thing that we always have to walk the extra mile, that 100 mile smarter than everyone else.

I'm being prejudged, because I'm a woman or an African American, and I just think we should stop doing that, and start rewarding people for performance and capability and experience.

Why I got to be certified? Why can't you just look at my work and if it's even or if it's better, give me a chance?

It's particularly egregious when they say that we as diverse vendors are unqualified because that's essentially what they're saying and they're spelling it out. There is no qualified vendor. They don't meet our standards. There's no MBE firm, there's no WBE firm that meets our standards. It's a false statement, and it's based in racism and misogyny. It's an institutionalized exclusion of women and minorities by perpetrating a myth that we're less qualified. The fact that those statements go unquestioned by the agencies, and they don't say, "Oh really? What are your standards because this contract requires a license by the State of Illinois and here's 50 diverse firms that have that license. What are your rigorous standards beyond the contracting requirement?" The fact that this goes unquestioned, I think, is a barrier to my very qualified diverse firm.

[Discrimination] falls into two categories. The first is we're meeting with you because we have to use women. That's the first one. Just letting me know that the only reason I'm in that meeting and have my foot in the door with them at all or that

they're taking the time to engage me or learn about my services at all is because they're required to. That's the first category. The second one that really bothers me, and I usually go home and talk to my family about it. It makes for a hard day, is when because I'm a white person, they share with me how much they don't want to work with minorities and what an inconvenience that is for them. They'll say, "Oh yeah, we have to meet with all these MBE companies and a lot of them, they're not even qualified and we have to use them on these projects. This is a really good money project, but it's so inconvenient working for these agencies because we have to meet with all these minority firms. We have to get them involved and we have to use them" but it's with really deep resentment.

Several interviewees reported that racism, sexism and unconscious bias limit their opportunities and adversely affect their businesses.

We got a project, we were in a table, the architects, we had the engineers, and the surveyor, when they started doing the work on the contract. And then everybody introduce themselves. I was the last on one, I said I'm a surveyor. Oh, you're going to be the surveyor. You got a license to be a surveyor? I said, yes, I do have a license to be surveyor. Can you show me a certificate, I said, well, I don't have my certificate right now. And I remember that I had a small copy on my license, my wallet, I open the other wallet and I gave it to other person. And I told them, okay, now I'm expecting when you're going to start asking the rest of the people for their license too. ... I was working for a survey for a non-minority company. And we were with some consultants who were minorities. Every company said, we hire this company because they are minority, we're not hiring because of the quality. We are hiring because they're minority, and that's the perception. One of the reasons that I started my company, I'm going to start my company I'm going to do the best that I can do to change the perception, that they are hiring us only because of the quotas. They will find us for the percentages, but they will hire us also because we can bring value to the table. We're bringing value to the teams, it happened that we were minorities.

All the time [people assume I work for my male employee].

I went to a meeting at the County three weeks ago, and I brought along the one [male] associate I have in the firm and the County capital improvement director continued to talk over

the three women in the meeting, but not over the two men. And I didn't even notice it, and when [male] and I left the meeting, he pointed it out and I was like, "Oh, my God it happens so often and I'm generally there by myself that there's no one to point out that, that's occurring. So, that happens all the time.

Prime contracts were especially hard to obtain.

Perception is a huge issue. There's a constant perception that if you have the certification, how could you be prime? Why should you be prime? Why are you prime, your disadvantaged? But I recently have, so I've had lots of conversations with different agencies and there's preferences among the minority groups too, right? Especially in this town, and I was told to my face that I should be so happy because I'm a preferred and successful Asian firm. ... I supposed to say thank you and now bow down to you and say thank you for like liking my work.

Sexual harassment and even assault remain a problem for women.

I have on several occasions been offered jobs in exchange for sex. I've had guys order several drinks my way to try to get me drunk at a networking event. They pull me to the side because we've talked on other occasions about a specific job and they'll say this job is coming up and they'll name one of my competitors. He's doing this and he's doing that and blah, blah, blah. A few drinks in, they want, okay, what are you going to do sort of thing. It's happened quite a bit.

A guy began harassing me on my first day at the conference and I won't replicate it, but he was making a symbol with his hand and licking between his fingers from across the conference room. The other men were looking and laughing. I was humiliated and I was hoping there has to be one decent person here who is going to step in. I really wanted to show my assistant how important it is to be assertive in a situation like that, so I told this guy on the break, I said, "Look, it's not funny. You're embarrassing me. You need to stop." I had to run up to my room and grab something. He came into the elevator with me and he started touching me. He put his hand under my shirt and he told me that he was going to get out with me and go to my room with me. I hit the alarm button in the elevator. He said, "I'm just kidding. I'm just kidding." Then I let the elevator go and I got out on my floor and he didn't follow me to my room. I was terrified. My heart was pounding. I went back to

the conference and I walked in late to the next session because I really needed to regain my composure. He was just doing it again, and he did it all through that whole session. At the break from that session, I went to the president of the [professional] Association who was running the conference. ... "There is a man here who is harassing me and he's terrifying me." He said, "But wait, tell me first, what have you learned at the conference so far?" I said, "What do you mean what have I learned? I can't even pay attention. This guy is harassing me." He said, "What have you learned in our sessions? What have you learned?" I said, "I don't know. I haven't learned anything. I've already been doing this work for five years and today's the 101 level. I want to talk to you about this." He said, "With an attitude like that, you're not going to make it. I'm very important and I'm very connected with your regulatory agency in your state." I said, "I really need to talk to you about this man who is harassing me. In fact, he's right there. Look. He's harassing me right now. He's making obscene gestures. He had an erection in the elevator and he pushed my hand against his erection in his pants. He's harassing me." He said, "I don't like your attitude. I don't think you have looked at the right attitude. He's just playing with you." ... Later that day, another man came up to me and said "I just want to personally apologize to you for what you went through. I am the [president's] business partner, and that is our other business partner who is harassing you." The man who was assaulting me was the business partner of the president of the Association that I was supposed to network in. No wonder he wouldn't hear my complaint. ... My competitors had a competitive advantage by being able to be involved in [the conference activities, including licensure], and because of that sexual harassment and that institutionalized sexual harassment even where the head of the agency wouldn't hear my complaint and help me, I was cut off from that pathway to success. Yet here I sit, and I've succeeded.

One strategy employed by minorities and women was to present a White or male face on the firm.

My assistant is Caucasian, and she always talks to the agencies, because I think it's better to have someone, especially when we got the projects, we go in, say, who's going to be the people working on the project? I bring the assistant. Just in case.

Some participants stated that blatant racism and sexism have subsided, and that some business owners have changed their behaviors, and perhaps, their attitudes.

I have noticed with the whole #MeToo movement, there has been a shift in how men act, particularly contractors. Ones that would be really pally with you and getting in your personal space, either somebody told him about it or they've recognized it themselves and they've dialed it back.

I was at a meeting yesterday with a large contractor who brought in all of his major subcontractors to talk about how do you include more women, minorities, and underutilized people in your workforces, not just in your own firms, but using your connections and your supply chain as job opportunities? There are some contractors who really are changing their views.

## **2. Effectiveness of DBE Program Goals**

We interviewed business owners about how the CTA's DBE programs address these types of barriers. DBEs generally reported that the programs work well and are essential to their ability to obtain CTA contracts and associated sub-contracts. Without contract goals, most would be shut out of agency opportunities.

[Firms that use us on projects with goals] never [us on projects without goals].

I think the goals are 100 percent necessary.

I get to be a price check.

Most of our work is tied to some type of MBE, DBE requirement or a goal.

[The DBE program] definitely has [been useful]. I mean, you've got to work it. Nothing's going to come. Your phone's not going to ring unless you go out there.

The program has benefited my company. Because we're a second tier to the larger electricals, we couldn't take something on that large. And because they have participation requirements, they contracted us as a DBE, WBE to take on the work and it's been beneficial.

The program does help.

95% has a requirement, public and private.

It really does take that program as leverage to even get my foot in the door to let my qualifications be known or to let them see what I can bring as an offer.

I lost my certification, and I was not able to do any business. I got no opportunities.

The idea of a glass ceiling, minority participation has a glass ceiling as well, and in the current climate, it's probably not going to be removed any time soon, but it's a glass ceiling and the truth of the matter is it's a very low glass ceiling given the dollar amounts of that ceiling.

If there's no goal and unless you have a very specific specialty, nobody's going to call you. I mean, this is consistent for me in many states.

If there wasn't a goal, I know as an engineering firm I'm not going to be called on for my specialty.

I would not have grown without that program.

I think the program is essential because ... it is not a fair playing ground. And as an Asian-owned firms or a woman-owned firm, Hispanic, African-American, I think, that we would not even be at this table without the program. The program needs to continue.

Work outside government affirmative action contracting programs was especially difficult to achieve.

We do not get [private sector opportunities] and we've been in business quite some time. We have really good relationships with all these contractors, but we've actually even sat down with a few of them and talked about doing private work. They were in shock like, "I didn't realize you'd want to do private work." Why wouldn't I want to?

All of the private deals are "this is the partner that I like". That's why they have the job. Until your friends are the ones doing the projects, you don't sit in those seats and so you don't get those opportunities.

We have never once done a project that did not have diversity goals for any of those primes. I always try to meet with them and say we really want to work with you on your private work too. I have not been able to make any inroads with that. The only way I've even been able to peak any interest about

engaging me on private sector work is to let them know that there is a diversity credit program that they can potentially leverage. Some of the primes have said, "We don't really bid city projects, so no thanks."

Certified firm owners sometimes were frustrated that prime contractors tend to use the same firms over and over, making it hard for new firms to break into the CTA's market.

I see always the same people getting the same contracts.

A few owners stated that being certified had not helped them obtain work.

Then once they win the bid, they don't use me and when I contact them for a debriefing to find out what on earth went wrong that you didn't use me or I start really stalking them after the bid. "Congratulations." "Let's get this moving." They say, "Well, we already met the women's amount in engineering, so we've decided not to use you and we're putting it out for re-bid." I say, "But I just did all the engineering for you. You're going to have to pay me my day rate next time to do the engineering." Then they'll call me next time and they'll say, "We can't do that. We don't have the authority to pay you. Just do it and then we're going to use you." ... It's been a 100% loss.

Many minority- and women-owned engineering and professional services firm believe they are blocked from moving from the subconsultant position to serving as the prime consultant, despite the use of contract goals.

That there are large, medium-sized, qualified, African-American firms in this city that don't do work and can't get work at CTA, it's clearly that it's a race issue. ... 20 years ago, it was a size problem. Today, there's no scale. I'm not suggesting that there is or isn't. T.Y. Lin is significantly bigger than us, but not in Chicago. And yet, their experience counts for everywhere else, their size counts for everywhere else, but in Chicago, we're probably one of the largest firms in Chicago. And yet, we don't get any of that work.

It should be called a subconsultants, subcontractor program.

We often then hear, "Well, you get to have some of the minority percentage of it." Bro, that's great, and for the vast majority of firms who are smaller, that's fantastic, but when you are 160-person minority firm, you need prime work. I can count on two fingers, one of them is in the room, all the minorities that's ever, in the history of CTA, had a prime

engineering contract. Ever. And both of them were in joint ventures. Because they had to. There's no such thing as a minority prime in engineering at CTA. When you look around the room and you look at the minority firms that I hear, we're 75 people, we're 90 people, we're 160 people. The companies that are winning are not this big in Chicago.

After you've moved past graduation, where do you fall back to [if you have no prime vendor experience]?

One proposed solution was to hire DBEs to assist CTA staff, so these consultants can develop relationships with key CTA decisionmakers.

[The CTA should hire DBEs to] do staff augmentation that allows us to get to know some of the people without having to work through a prime that doesn't really want you to get to know who they know.

CTA's very stringent experience requirements create barriers for all smaller firms that provide engineering and consulting services.

Because you don't have that one person who has that 15 years or some sort of CTA experience, they move on to somebody else, which some of the work that we do doesn't necessarily require. ... We do it for all the other agencies in the city and the state or whatever, but then we're kind of bounced out of there because we don't have that CTA experience. ... When they come out with smaller RFQs that seemingly would be a perfect entre for smaller businesses, there may be 500, half million-dollar contracts, million-dollar contracts, which many of the companies in here are more than capable of doing, it still goes to the largest large firm in the area. It's almost like, "We want you to come after these contracts," but then at the end of the day, do they really?

I'll give you a couple of words and examples that are currently in the RFQ right now. "At least 15 years of experience in certain areas. The ideal candidate will have experience working on one billion dollar and more projects." Now, if you know anything about transportation in America, there's been four one billion-dollar projects or more in the country in the past twenty years. Which means that they're looking for one of four firms. ... So, the rest of us don't have a chance. ... They want people who have worked at CTA. ... you got to hire somebody who's leaving CTA, hold them for about 6-8 months, put out their resume, and then hope to get work. The issue is, they've been working

with the same five firms for the past 15 years, so they have relationships of where they want to go when they retire, it's going to be one of the five firms that they've worked with over the past 15 years, which makes complete sense. The problem is, none of those firms are Black. ... that there are large, medium-sized, qualified, African-American firms in this city that don't do work and can't get work at CTA, it's clearly that it's a race issue. ... 20 years ago, it was a size problem. Today, there's no scale. I'm not suggesting that there is or isn't. T.Y. Lin is significantly bigger than us, but not in Chicago. And yet, their experience counts for everywhere else, their size counts for everywhere else, but in Chicago, we're probably one of the largest firms in Chicago. And yet, we don't get any of that work,

We simply feel we don't have a chance. When we look at the requirements, forget about it.

It would be great to have CTA experience on CTA projects, but is it really necessary? I don't know that it's always necessary. [We get work as a prime consultant with other government agencies] but not CTA.

The overwhelming number of these jobs are you put in some joint venture, and you're never in charge, you still taking orders as a subcontractor. And you cannot count that as the experience modification when you start doing big private jobs. You being a subcontractor or a joint venture partner goes for zilch in the boardroom when you start talking about the private sector. We need to look at this whole thing. I personally think that the specs are written to eliminate people.

They could look at multiple aspects of your experience, to understand that you're qualified to do the job at hand and not just count the number of years [such as] ... other market sectors that you work in, the length of time that you've been in business.

Contract size was another identified barrier to both prime contract and sub-contract opportunities.

We have a capacity to do the work, but for the skill set we have, the packages aren't broken down small enough.

Break up the project.

If they break those contracts up where they can be sent out for bid for just a smaller portion instead of lumping the contract in

just one piece. I think that, that can give more access to more people and therefore that would eliminate the prime subcontractor. Because now the small businesses or DBE's can bid as a prime.

“On-call” or task order contracts sometimes did not lead to work for subcontractors. The large firm controls who gets the work, and some certified business owners stated they had been listed but never used.

How to find out what tasks are being ordered off of tasks order or JOC contracts?

That's right.

One non-DBE specialty trade contractor stated that the programs have been very detrimental to his business.

DBE goals are pure poison to our business and the reason is, is because if you put a high 30 percent goal on a project, 30 percent is coming out of the subcontract portion. So, what we're left to compete with is the difference between that 30 percent and the general contractor retention. And we've been in business 70 years. Our office and shop has been on [name] Avenue. We've been committed to the city all the whole time. I think we should have a preference and consideration for that reason.... We're just a small [White male owned] company trying to make it work and the DBE goals really shut us down.

### **3. DBE Program Administration**

As part of its DBE program and in response to these types of concerns, CTA has implemented various program elements. Participants provided extensive feedback.

Participants mostly reported that CTA conducts many outreach activities and these efforts are helpful in accessing information and forming relationships with prime vendors and CTA staff.

They have been very good at reaching out to DBEs, and WBEs, and MBEs, and offering a chance where ... the businesses can speak to CTA, can speak to each other, and they have been good about pushing out opportunities. ... As far as reaching out, I think that CTA has been very good.

[Vendor fairs can be] extremely helpful. You form relationships, not only for that particular project but down the line, and it's very beneficial.

CTA does a good job with their outreach.

Prime contractors reported that DBEs need technical assistance to perform on CTA's often complex and specialized projects.

We try to help, but also the specialty of the projects make it difficult. It's easier when you have some type of building renovation that you can have carpentry and painting and small trades that really make it a lot easier. But when you have something related with electrical and the loop signal for instance, has been very difficult to sign in. You cannot have DBE's so you try to use the smaller trades.

Definitely some type of CTA training I think it will help. If they can open some type of workshops, something that really expose those DBE's to the specialties CTA needs. I think that will help. I think ... I do a lot of networking events. I do pre-construction, pre-bidding, pre-bids networking events and you always see the same companies showing up. The same ones that you already use, but you want to increase the pool of candidates. But I think the specialty again, you go back to the specialty of the project which make it smaller for them. It's more competitive. CTA can put trainers out there, workshops for GC's.

[Provide] some training on best practice for contractors about your own compliance

CTA put some type of workshops, get those DBE's, bring them back, the one that always work for us, I mean for CTA projects and really make sure they're ready. That will really help too.

Some small firms found it difficult to access information about what firm was awarded the contract and the proposed subcontractors.

They might be able to be more transparent posting who is apparent low, maybe posting the schedules for once the contract's been actually awarded.

A designated ombudsperson was one way to assist firms to navigate through the CTA bureaucracy and ensure that DBEs are included in discussions.

There needs to be some folks from the CTA that will make themselves available to be an advocate for people like us.

it might be important to have a small business ombudsman who says, "Hey, if you have a small business, and you want to work with this agency, then let's look at the areas where you

might not have the experience to make sure that you have a responsible bid, and that you have all the information you need to do this correctly so that you don't end up short after the contract award. This is not just having solicitations out there and having set asides. It's making sure that the certified businesses succeed at the contract so that they'll want to do business with the agency again.

A bonding and financing program was another idea to assist small firms to do business with CTA.

Financing and bonding support [is needed for DBEs].

I would definitely say the bonding issue, when we have the subs bond to general contractors is very difficult because of the equity requirements and inability to take on private money. They're looking at, the bonding companies are typically looking at the owners as providing collateral in a case of a devolution of some sort. That makes it very difficult to get some of the larger contracts and grow, and then obviously there are size limits associated with the DBE program, so you're kind of stuck by a double-edged sword. In addition, on change orders, the DBE typical, the specifications typically don't allow payment for subcontractor bonds, so the subs end up eating, and allow payment for subcontractor bonds, so the subs end up eating, and obviously as I'm sure you know, it's a one-way street when you sign the general contractor's contracts. There's not a lot of negotiation that goes on.

Prime contractors agreed that DBEs and small firms need assistance with financing CTA's jobs.

[Our DBE is] actually pretty good, but he can't, for the life of me, he can't get me material when I need it, so at that point I have to figure a second source. That I can alternate, and the second source has to be a DBE as well, and it becomes a lot of time on the phone .... I don't know if CTA can help them from a development standpoint, but it appears to me they need a lot of help.

CTA has banking relationships, right? If they went to their banking relationships and said, "We're not going to underwrite this, but you know you like our business" ... What if we set aside some lending for that? ... How can you help us?

It's extremely difficult to deal with them. I don't think they have the capital, and it's so much babysitting.

Training for prime vendors on DBE compliance was suggested by both vendors and CTA staff to ensure that bidders meet requirements and do not inadvertently violate regulations and policies.

Most of us have to go through this [high learning curve] the first time at least, and we don't have any guidance or knowledge of that.

To address some of these concerns, participants suggested two programs. While the CTA has both a Small Business Enterprise Program and a Mentor-Protégé Program in its policies, interviewees were not aware of these initiatives and made recommendations for how they can become effective.

There was significant support for a race- and gender-neutral small business target market program to assist small firms to work as prime contractors and consultants. Further, on call or job order contracts, where the agency creates a list of contractors with whom it can contract quickly to get smaller jobs done, were pointed to as an excellent vehicle for the target market approach.

[A] set-aside definitely it's a very good solution, whether CTA would like to pursue in the future, I think that's something really help us.

One solution could be like to set aside projects for small firms.

An SBE setaside was one method to assist firms that have outgrown the DBE program size and/or personal net worth standards but cannot yet compete against large, long established CTA contractors.

There needs to be a graduation program put in place for people that grow out of being a DBE. ... The projects are quite frankly way too big for any contractor that is just growing out of a DBE to be able to jump into a large CTA project. I think there's going to be a significant drop off if they expect that DBE, to try to graduate it, compete against a large prime.

There was enthusiastic support from DBEs for a Mentor-Protégé program for both construction businesses and construction-related services.

[There] needs to be a mentor/protégé [program].... [Prime contractors] need to be incentivized, and it doesn't have to be necessarily with money, but it can be with be with credits.

[Develop] a mentor-protégé program where you can get minority firms to partner with some of these other firms to be mentored so that 15 years from now, we got a shot.

I've never been in one but sounds like it would work.

Have a mentor protege program.

What about something similar to what the [Illinois] Tollway has done for construction? They have all these many technical service, technical assistance contracts.

Several large general contractors were also supportive of the concept of a mentor-protégé program.

The Mentor Protégé [program] has worked well [at other agencies

However, some DBEs cautioned that implementation can be challenging.

It's very important that number one, you have the right partner, the right mentor who really is bought into the program and we've been talking to some primes, but nothing's really fell into place, we've kind of learned some hard lessons.

I only got out of it what I chased down. And so, I was the one who really made sure that the program moved along. I had my own agenda of what I wanted to get out of it. But it was difficult, getting the meetings, getting access to the resources that the mentor promised you had to work really hard at it... have the mentor and the agency outline some goals that they think are important for new firms from the start.

Potential mentors agreed.

[Name] has engaged in Mentor Protégé relationships and some are good. Some are bad. The mentee has to be willing to accept the guidance of the mentor. So sometimes there's friction because they want to jump right in and do everything. Well then, why do you need a mentor? If that's the attitude that you're going to have, we're here to assist and guide you, not for you to run us. So, sometimes you have one, to be willing to be mentored and two, the mentor has to be willing to lead. And sometimes it's not a good match. So that's the bad part but then when you have one that works, that's willing to accept your suggestions on you're estimating this improperly, you missed that. Just basic guidance on how to run a project.

Half the problem is the selection process is qualification based. I think they need to create some positions on those projects that are for trainees. So, new firms can have Mentor Protégé relationship where you can groom those people. Because right now, we're proposing on projects, okay what looks better? Somebody that's got 15 years CTA experience or somebody that's been on [Illinois Department of Transportation] projects for 15 years?... [Prime consultants need the] option to say we're going to groom the company to fill this spot, to enlarge their scope of work or strengthen it, then it's going to help us meet our goal.

#### **4. Payments**

Complaints about slow payments were expressed by many firms. This seemed to be mostly a problem of payment from CTA to the prime contractor.

One of my personal favorites is, "The schedule didn't match with what you billed." Even though the work was completed, the work was approved, the work passed whatever inspection it had to, when the original schedule for the work that was performed was done, the schedule did not match the amount of work you completed that month, so instead of getting your money at 60 or 90 days, whenever, 60 or 90 days, you have to revise that schedule and then wait again.

On a major contract as a prime, we had to go back and we do eight months' worth of pay applications. In the interim, they held up all the payments to us and all of our subcontractors. That was like four or five months, I mean, which is terrible. It's just awful for everybody in the process. The prime and if the prime has caught a cold, the subs have pneumonia

They should have some extra staff, the CTA, for these mega, mega, mega projects to work with the contractor during the invoicing process so it's only done once, to go to your office and work with you, to be assigned half time, full time, so that it's only done once.

The more abominable piece, honestly, is retentions that can be held for years in terms of closing out contracts. I don't see that as just a subcontractor issue.... There's a few companies out there that have enough cash that they don't have to use lines of credit, banks and lines of credit, but banks and your line of credit, retentions are not included in the borrowing base with

your lending institution. That largest chunk of money that you have out there, can have out there in certain circumstances, you can't even borrow against it.

I will send in my pay up, it takes anywhere from four to six weeks to get that approved, I have to call and keep pounding them.

Pay app[lication] sits in their desk for 30 days, so that's already 60 days from start point to the end, it's got to get approved. If it's not approved, it gets kicked back. Now, the kickback is, and this is the biggest complaint I have, if every contractor on that list did everything right except for one, why does the whole thing get kicked back? Now, that kickback goes back and it sits, now by that time you're already into pay app number two or pay app number three.... Their change order process is even slower in paying to the point where after approval, they'll release funds six to eight months after.

Every change order with CTA has to go through board approval.... If it's an official change order that changes the actual contract value. So, what they're doing now is that they're adding allowances in there. So, we've got a couple of million-dollar owner contingency that they should be able to add or deduct from. But the deducts are all being made as contract change orders which I don't know why that's the case too. So, those we won't get until the end of the job.

Our biggest beef is transparency. We just don't know where it's at within the agency. If you just knew where it was at, what desk its sitting on 'cause you just don't know

Slow pay especially affects DBEs and small firms and increases the burdens of compliance for general contractors.

They're not paying us for sometimes 90 days plus, regardless of what the contract says. From the end of the month to when we actually receive a check, can be up to 90 days. Sometimes longer, sometimes a little less. So, what does that do to a DBE that's done the work, say, at the beginning of that month. Now, they're about 120 days out and then it has to go through our process. And obviously, we have to pay within the contract terms and we do. But they're put out there at risk. And some of the DBE's are on relatively living check to check. They have to make payroll. We've had to step in.

You have DBE's and they need the money, so you do prepayments.... The process from CTA is so cumbersome that it takes so long for either change orders or just the payouts, just submit payouts.... DBEs, they don't have the money to keep the payroll and union fees and suppliers. So, it's very cumbersome. Honestly, that's my main headache.... [CTA is worse than other agencies], yes.

What's a real problem is when you have a significant change order to a DBE, then you're screwed. Because then it's gotta go through the whole process of approval process.... You can be out six, seven months and 500,000 dollars. And for the cashflow for the DBE position, you're really stuck. That change order can break you. The cashflow, cash is king for DBEs and the cashflow is a huge, huge problem.

Simplifying the pay application process and transparency would probably expedite the pay application process and get the DBEs paid quicker.

I love that [B2GNow] system. It's the best way to track payment, however when you are doing prepayments to DBE's, you cannot show those prepayments on the system. Because you need to wait for the audits to be open. So, basically what happen is CTA pays me, that opens an audit.... I have three checks here that I can send you but I cannot post them to B2G because you haven't' paid me. So, I cannot enter the information. I have good relationship with [CTA]. I just make a phone call and I explain and they understand. However, it's very confusing. For them, if they have to run the report today for the Board, that report doesn't reflect [actual payments to DBEs].

Some DBEs have been paid before the prime contractor has been paid by CTA.

What's helped, too, is because the payment is horrible, and these larger electricals, if they know the money is coming, they'll pay me [as a DBE subcontractor].

## **5. Meeting Contract Goals**

Although not always easy, most prime vendors reported they have been able to meet CTA's DBE goals.

We meet the goal. We perform good faith effort at time of bid, time of proposal. Every job has different requirements

depending on the contract delivery method, so sometimes it's required with the bid, other times it's not. We've not gone for a waiver. We haven't needed to. ... If you can't meet it on your major specifications of whatever that job is, then you try it somewhere else. But the goal can be met.

it can be challenging but I would say, 99 percent of the time we're able to meet it. It's just these one offs [of specialized work such as rail and signals] a little bit that can be a problem.

I don't want [my estimators] to think we can do the waiver. Otherwise, they won't try that hard. Otherwise, they won't look those numbers that hard from the DBE's. So, if I tell I have that lifesaver there, they will be more relaxed. If I tell them no, we are not bidding this job and I have of course support of the management, which is great. When you work in company that really believes in the program.

There's usually a DBE [information technology] partner out there, that that's their specialty. They have people that they work with, and so it hasn't really been that challenging. We've had some good partners here. We had, I believe, one time a partner was removed from a contract for poor performance, so we've been through that.

For the most part, we have DBEs that we have worked with for many years, and we keep trying to expand our DBEs by days, and it's always very difficult.

I found a spectacularly excellent person in this area. She's local, and we've done other things subsequently, where [a DBE goal] wasn't the case.

DBEs can be harder to work with because of their size, lack of experience, challenges with working capital and/or non-union status.

You meet the goals but you can have struggles with some DBE's during the project because they don't want to pay the unions. You have to do joint checks, you get suppliers calling you. So, sometimes yes, you meet the goal but it's a lot of headache.

It would definitely open up that diverse firm side of it for sure [to reduce the experience requirements].

The complexity of many CTA projects poses special challenges to prime firms.

There are some times when you're pretty niche, and to go out and find somebody who has those experiences is next to

impossible, and you want to do it in a spirit to which you're trying to do it, so you end up creating things to do it.

If you're in a place where you can't meet the goal naturally, you unnaturally meet it.

We're asking for participation from them up front [on design-build projects], but again there's no direct incentive for them to participate.... They gave us inaccurate numbers or it's just inaccurate because the plans are [vague].

You try to reshuffle and reassign something and we got it up but we just couldn't get it quite all the way there because of the way the work was completed at the time. And then sometimes, a total re-scoping of project which has happened and that became a challenge, especially on the rail side. Because things were so specialized.

The Illinois Unified Certification Program's DBE Directory was reported to be less than an ideal vehicle to find qualified DBEs.

The DBE list, in my opinion, is relatively restrictive [compared to lists of minorities and women more generally].

[The Illinois UCP] it's not very user friendly.

Vendors in industries other than construction and related services sometimes found it difficult to meet the contract goals.

Bring people in and do these vendor fairs, and meets and greets, and a little bit more research [for contracts outside construction].

I had to document all the people [we contacted to meet the goal] , and that was my good faith effort. [The agency staff] were okay with it.

The size of many CTA contracts means the prime contractor must push its lower tier subcontractors to themselves meet the goal so as to achieve the percentage on the overall job.

We have to rely on our lower tiers to bring in the DBEs.

It's very difficult without that. It's not just electrical, it's many of the different specialty trades. Lower tier subs play a big part in ... the overall DBE plan on each proposal.

Several prime bidders reported that if they cannot meet the goal, they do not submit bids. Documenting their Good Faith Efforts to meet the goal was either

too burdensome or too risky, given their perception that no waivers would be granted.

I haven't seen them grant a waiver.

No good faith efforts at the time of the bid.

## **C. Conclusion**

CTA implements its DBE programs in conformance with the federal DBE program regulations, constitutional standards and best practices. Overall, CTA programs were reported to be helpful and properly administered. Minorities and women continue to suffer discriminatory barriers to full and fair access to contracts and associated subcontracts in CTA's market area. Certified firms have received work as a direct result of contract goals, and most stated that without the implementation of contract goals, their opportunities would be greatly diminished or non-existent. We therefore conclude that narrowly tailored contract goals remain necessary to ensure full and fair access to CTA's contracts. While prime vendors found it challenging to meet the goals, especially given the complexity and schedules for major transit projects, most were able to include minority and women businesses on their contracts.

# IV. UTILIZATION AND AVAILABILITY ANALYSIS FOR THE CHICAGO TRANSIT AUTHORITY

## A. Contract Data Overview

We analyzed contract data for Federal Fiscal Years 2012 through 2016 for the Chicago Transit Authority's ("CTA") Federal Transit Administration ("FTA") and locally-funded contracts. To conduct this analysis, we constructed all the fields necessary for our analysis where they were missing in CTA's contract records (*e.g.*, industry type; zip codes; NAICS codes of prime contractors and subcontractors; non-Disadvantaged Business Enterprise ("DBE") subcontractor information, including payments, race, gender; etc.). The resulting Final Contract Data File for analysis contained 1,275 FTA contracts, with a total award amount of \$1,052,366,256 and 408 locally-funded contracts, with a total award amount of \$927,664,885. The Final Contract Data File was used to determine the geographic and product markets for the analyses, to estimate the utilization of DBEs on FTA-funded and locally-funded contracts and to calculate DBE availability in CTA's marketplace by funding source and contract type.

## B. Chicago Transit Authority's Product and Geographic Markets for FTA-Funded Contracts

As discussed in Chapter II, a defensible disparity study must determine empirically the industries that comprise CTA's product or industry market. This is also a requirement under the DBE program regulations official Guidance that govern CTA's utilization of FTA funds.<sup>152</sup> The accepted approach is to analyze those detailed industries, as defined by 6-digit North American Industry Classification System ("NAICS") codes<sup>153</sup> that make up at least 75 percent of the prime contract and subcontract payments for the study period.<sup>154</sup> However, for this study, we

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152. [https://www.transportation.gov/sites/dot.gov/files/docs/Tips\\_for\\_Goal-Setting\\_in\\_DBE\\_Program\\_20141106.pdf](https://www.transportation.gov/sites/dot.gov/files/docs/Tips_for_Goal-Setting_in_DBE_Program_20141106.pdf); see also 49 C.F.R § 26.45.

153. [www.census.gov/eos/www/naics](http://www.census.gov/eos/www/naics).

154. National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/14346>. ("National Disparity Study Guidelines").

went further, and applied a “1 percent” rule, whereby we analyzed NAICS codes for federally-funded contracts and separately for locally-funded contracts where the share of the total contract dollars was at least 1%; where the share of the prime contract dollars was at least 1%; and where the share of subcontract dollars was at least 1%. We took this approach to assure a comprehensive analysis of CTA’s activities.

## 1. CTA’s Unconstrained Product Markets for FTA-Funded Contracts

Tables 4-1 through 4-3 present the NAICS codes used to define the *unconstrained* product market for CTA’s FTA-funded contracts. These data were later constrained by the geographic market, discussed below. These contracts were disaggregated by level of contract (*i.e.*, was the firm receiving the contract as a prime vendor or as a subcontractor), the label for each NAICS code, and the industry percentage distribution of the number of contracts and spending across NAICS codes.

**Table 4-1: Industry Percentage Distribution of Contracts by Dollars Paid for FTA-Funded Contracts, All Contracts**

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
236220	Commercial and Institutional Building Construction	10.8%	10.8%
423830	Industrial Machinery and Equipment Merchant Wholesalers	9.4%	20.2%
336120	Heavy Duty Truck Manufacturing	7.6%	27.7%
237310	Highway, Street, and Bridge Construction	7.4%	35.1%
541330	Engineering Services	7.1%	42.2%
811111	General Automotive Repair	6.6%	48.8%
238210	Electrical Contractors and Other Wiring Installation Contractors	6.2%	55.1%
541310	Architectural Services	6.1%	61.2%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	5.9%	67.1%
238220	Plumbing, Heating, and Air-Conditioning Contractors	4.3%	71.4%
238910	Site Preparation Contractors	3.0%	74.5%
238140	Masonry Contractors	2.7%	77.2%
238120	Structural Steel and Precast Concrete Contractors	2.2%	79.4%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
237990	Other Heavy and Civil Engineering Construction	2.0%	81.4%
541512	Computer Systems Design Services	1.8%	83.3%
236210	Industrial Building Construction	1.7%	85.0%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	1.5%	86.5%
238350	Finish Carpentry Contractors	1.1%	87.6%
238110	Poured Concrete Foundation and Structure Contractors	1.1%	88.7%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	1.0%	89.7%
<b>TOTAL</b>			<b>100.0%<sup>a</sup></b>

a. An additional 112 NAICS codes contained 10.3% of all net CTA spending to all contractors. Appendix D contains the entire list of NAICS codes and the total contract dollars each code received.

Source: CHA analysis of Chicago Transit Authority data.

**Table 4-2: Industry Percentage Distribution of Contracts by Dollars Paid for FTA-Funded Contracts, Prime Contracts**

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
423830	Industrial Machinery and Equipment Merchant Wholesalers	18.8%	18.8%
336120	Heavy Duty Truck Manufacturing	15.2%	34.0%
237310	Highway, Street, and Bridge Construction	13.6%	47.6%
236220	Commercial and Institutional Building Construction	11.6%	59.1%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	10.7%	69.8%
541330	Engineering Services	6.4%	76.2%
811111	General Automotive Repair	4.8%	81.0%
236210	Industrial Building Construction	3.4%	84.4%
541512	Computer Systems Design Services	3.0%	87.4%
541310	Architectural Services	2.8%	90.2%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238210	Electrical Contractors and Other Wiring Installation Contractors	2.3%	92.5%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	2.0%	94.5%
238160	Roofing Contractors	1.2%	95.7%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	1.1%	96.9%
<b>TOTAL</b>			<b>100.0%<sup>a</sup></b>

a. An additional 23 NAICS codes contained 3.1% of all net CTA spending to prime contractors. Appendix D contains the entire list of NAICS codes and the total contract dollars each code received.

Source: CHA analysis of Chicago Transit Authority data

**Table 4-3: Industry Percentage Distribution of Contracts by Dollars Paid for FTA-Funded Contracts, Subcontracts**

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238210	Electrical Contractors and Other Wiring Installation Contractors	10.2%	10.2%
236220	Commercial and Institutional Building Construction	10.0%	20.1%
541310	Architectural Services	9.4%	29.5%
811111	General Automotive Repair	8.4%	37.9%
238220	Plumbing, Heating, and Air-Conditioning Contractors	8.4%	46.3%
541330	Engineering Services	7.7%	54.1%
238910	Site Preparation Contractors	6.1%	60.1%
238140	Masonry Contractors	5.4%	65.6%
238120	Structural Steel and Precast Concrete Contractors	4.4%	70.0%
237990	Other Heavy and Civil Engineering Construction	3.8%	73.8%
238350	Finish Carpentry Contractors	2.2%	75.9%
238110	Poured Concrete Foundation and Structure Contractors	2.1%	78.1%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	1.9%	80.0%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238320	Painting and Wall Covering Contractors	1.6%	81.6%
237310	Highway, Street, and Bridge Construction	1.2%	82.8%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	1.2%	84.0%
238990	All Other Specialty Trade Contractors	1.1%	85.2%
<b>TOTAL</b>			<b>100.0%<sup>a</sup></b>

a. An additional 107 NAICS codes contained 14.8% of all net CTA spending to subcontractors. Appendix D contains the entire list of NAICS codes and the total contract dollars each code received.

Source: CHA analysis of Chicago Transit Authority data

## 2. CTA's Geographic Market for FTA-Funded Contracts

The courts and the DBE program regulations<sup>155</sup> require that a local government limit the reach of its race- and gender-conscious contracting program to its geographic market area.<sup>156</sup> This element of the analysis meets the requirements that the program be “narrowly tailored” and empirically established.<sup>157</sup>

To determine the relevant geographic market area, we applied the standard approach of identifying the firm locations that account for at least 75 percent of contract and subcontract dollar payments in the Final Contract Data File.<sup>158</sup> Location was determined by ZIP code and aggregated into counties as the geographic unit.

The state of Illinois has 96.9% of all contract dollars in the unconstrained product market. Table 4-4 presents how this spending is distributed across 8 counties in the state. These 8 counties constituted the geographic market for the study.

155. [https://www.transportation.gov/sites/dot.gov/files/docs/Tips\\_for\\_Goal-Setting\\_in\\_DBE\\_Program\\_20141106.pdf](https://www.transportation.gov/sites/dot.gov/files/docs/Tips_for_Goal-Setting_in_DBE_Program_20141106.pdf); see also 49 C.F.R § 26.45.

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

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

158. *National Disparity Study Guidelines*, p. 49.

**Table 4-4: Distribution of Contracts in Chicago Transit Authority's Unconstrained Product Market for FTA-Funded Contracts**

State/County	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
Cook	81.78%	81.78%
Lake	10.60%	92.38%
Dupage	4.21%	96.59%
Kankakee	1.07%	97.66%
Will	1.03%	98.69%
Grundyl	0.68%	99.37%
McHenry	0.36%	99.73%
Kane	0.21%	99.94%
Kendall	0.04%	99.98%
Dekalb	0.02%	100.00%
<b>TOTAL</b>		<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data.

### 3. CTA's Utilization of DBEs on FTA-Funded Contracts

Having determined CTA's product and geographic market area for FTA-funded contracts – the agency's *constrained* product market – the next step was to determine the dollar value of CTA's utilization of DBEs<sup>159</sup>, as measured by payments to prime firms and subcontractors and disaggregated by race and gender. CTA did not collect data for all non-DBE subcontractors, as well as all other records (prime contractor contact information, race and gender, NAICS codes, etc.) critical for the study. We therefore had to obtain missing data from prime vendors, a lengthy process, as well as reconstruct other contract records, including researching the race and gender ownership of subcontractors and assigning NAICS codes to those firms.

Tables 4-5 through 4-9 present data on the total contract dollars paid by CTA for each NAICS code in the constrained product market and the share the contract dollars comprise of all industries. It is important to note that the contract dollar shares are equivalent to the weight of each NAICS code spending. These weights were used to transform data from unweighted availability to weighted

159. We use the term "DBEs" to include firms owned by racial or ethnic minorities and white females that are not certified as DBEs under 49 C.F.R. Part 26. This casts the "broad net" required by the courts, as discussed in Chapter II. See also footnote 160.

availability, as shown below, after the initial presentation of NAICS code distribution of total contract dollars in Table 4-5.

**Table 4-5: NAICS Code Distribution of FTA-Funded Contract Dollars**

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
236220	Commercial and Institutional Building Construction	\$113,256,088.00	12.5%
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$98,685,760.00	10.9%
336120	Heavy Duty Truck Manufacturing	\$79,885,216.00	8.8%
237310	Highway, Street, and Bridge Construction	\$75,965,984.00	8.4%
541330	Engineering Services	\$74,185,096.00	8.2%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$65,411,348.00	7.2%
541310	Architectural Services	\$63,397,256.00	7.0%
811111	General Automotive Repair	\$63,234,988.00	7.0%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	\$56,127,908.00	6.2%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$45,085,212.00	5.0%
238910	Site Preparation Contractors	\$29,705,852.00	3.3%
238140	Masonry Contractors	\$25,385,216.00	2.8%
541512	Computer Systems Design Services	\$17,673,086.00	2.0%
236210	Industrial Building Construction	\$16,658,755.00	1.8%
237990	Other Heavy and Civil Engineering Construction	\$16,430,958.00	1.8%
238120	Structural Steel and Precast Concrete Contractors	\$15,419,229.00	1.7%
238110	Poured Concrete Foundation and Structure Contractors	\$11,029,155.00	1.2%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	\$10,383,440.00	1.1%
238350	Finish Carpentry Contractors	\$9,398,152.00	1.0%
238990	All Other Specialty Trade Contractors	\$5,709,293.00	0.6%
238320	Painting and Wall Covering Contractors	\$5,239,279.50	0.6%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	\$4,366,698.50	0.5%
238160	Roofing Contractors	\$2,876,035.25	0.3%
<b>Total</b>		<b>\$905,510,005.25</b>	<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data.

**Table 4-6: Distribution of FTA-Funded Contract Dollars by Race and Gender  
(total dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
236210	\$0	\$0	\$0	\$0	\$0	\$0	\$16,658,755	\$16,658,755
236220	\$0	\$570,221	\$24,608	\$0	\$7,621,718	\$8,216,547	\$105,039,539	\$113,256,086
237310	\$18,467	\$2,127,409	\$0	\$0	\$1,511,267	\$3,657,143	\$72,308,838	\$75,965,981
237990	\$9,349,245	\$0	\$3,580,979	\$0	\$731,846	\$13,662,070	\$2,768,888	\$16,430,958
238110	\$5,934,428	\$3,115,664	\$0	\$0	\$1,905,706	\$10,955,798	\$73,356	\$11,029,155
238120	\$1,192,833	\$407,070	\$0	\$0	\$6,951,934	\$8,551,837	\$6,867,392	\$15,419,229
238140	\$17,891,832	\$0	\$0	\$0	\$4,129,488	\$22,021,320	\$3,363,895	\$25,385,216
238160	\$807,187	\$630,502	\$0	\$0	\$55,233	\$1,492,922	\$1,383,113	\$2,876,035
238210	\$8,194,409	\$3,520,764	\$450,436	\$0	\$16,122,217	\$28,287,826	\$37,123,524	\$65,411,349
238220	\$1,190,831	\$982,764	\$0	\$0	\$2,086,470	\$4,260,065	\$40,825,149	\$45,085,214
238320	\$276,254	\$2,600,817	\$764,389	\$0	\$888,571	\$4,530,031	\$709,249	\$5,239,280
238350	\$0	\$2,979,414	\$0	\$0	\$5,923,215	\$8,902,629	\$495,523	\$9,398,152
238910	\$62,338	\$1,758,421	\$665,987	\$0	\$237,943	\$2,724,689	\$26,981,163	\$29,705,851

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
238990	\$70,646	\$1,828,838	\$0	\$0	\$1,100,178	\$2,999,662	\$2,709,631	\$5,709,293
336120	\$0	\$0	\$0	\$0	\$0	\$0	\$79,885,216	\$79,885,216
423120	\$0	\$0	\$0	\$0	\$0	\$0	\$4,366,698	\$4,366,698
423830	\$0	\$0	\$0	\$0	\$0	\$0	\$98,685,760	\$98,685,760
423860	\$0	\$0	\$0	\$0	\$0	\$0	\$56,127,908	\$56,127,908
541310	\$2,338,011	\$551,658	\$9,125,293	\$0	\$3,405,946	\$15,420,908	\$47,976,349	\$63,397,258
541330	\$5,733,229	\$3,683,456	\$5,646,597	\$0	\$9,962,851	\$25,026,133	\$49,158,964	\$74,185,096
541512	\$56,280	\$0	\$17,616,806	\$0	\$0	\$17,673,086	\$0	\$17,673,086
811111	\$0	\$0	\$0	\$0	\$26,060,578	\$26,060,578	\$37,174,409	\$63,234,987
811310	\$0	\$0	\$0	\$0	\$0	\$0	\$10,383,440	\$10,383,440
<b>Total</b>	<b>\$53,115,991</b>	<b>\$24,756,997</b>	<b>\$37,875,095</b>	<b>\$0</b>	<b>\$88,695,162</b>	<b>\$204,443,245</b>	<b>\$701,066,758</b>	<b>\$905,510,002</b>

Source: CHA analysis of Chicago Transit Authority data.

**Table 4-7: Distribution of FTA-Funded Contract Dollars by Race and Gender  
(share of total dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
236210	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
236220	0.0%	0.5%	0.0%	0.0%	6.7%	7.3%	92.7%	100.0%
237310	0.0%	2.8%	0.0%	0.0%	2.0%	4.8%	95.2%	100.0%
237990	56.9%	0.0%	21.8%	0.0%	4.5%	83.1%	16.9%	100.0%
238110	53.8%	28.2%	0.0%	0.0%	17.3%	99.3%	0.7%	100.0%
238120	7.7%	2.6%	0.0%	0.0%	45.1%	55.5%	44.5%	100.0%
238140	70.5%	0.0%	0.0%	0.0%	16.3%	86.7%	13.3%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
238160	28.1%	21.9%	0.0%	0.0%	1.9%	51.9%	48.1%	100.0%
238210	12.5%	5.4%	0.7%	0.0%	24.6%	43.2%	56.8%	100.0%
238220	2.6%	2.2%	0.0%	0.0%	4.6%	9.4%	90.6%	100.0%
238320	5.3%	49.6%	14.6%	0.0%	17.0%	86.5%	13.5%	100.0%
238350	0.0%	31.7%	0.0%	0.0%	63.0%	94.7%	5.3%	100.0%
238910	0.2%	5.9%	2.2%	0.0%	0.8%	9.2%	90.8%	100.0%
238990	1.2%	32.0%	0.0%	0.0%	19.3%	52.5%	47.5%	100.0%
336120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423830	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423860	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541310	3.7%	0.9%	14.4%	0.0%	5.4%	24.3%	75.7%	100.0%
541330	7.7%	5.0%	7.6%	0.0%	13.4%	33.7%	66.3%	100.0%
541512	0.3%	0.0%	99.7%	0.0%	0.0%	100.0%	0.0%	100.0%
811111	0.0%	0.0%	0.0%	0.0%	41.2%	41.2%	58.8%	100.0%
811310	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
<b>Total</b>	<b>5.9%</b>	<b>2.7%</b>	<b>4.2%</b>	<b>0.0%</b>	<b>9.8%</b>	<b>22.6%</b>	<b>77.4%</b>	<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data.

#### 4. Availability of DBEs in CTA's Markets: FTA-Funded Contracts

##### a. Methodological Framework

Estimates of the availability of disadvantaged, minority- and female-owned firms (collectively, "DBEs")<sup>160</sup> in CTA's market area are a critical component of the analysis of possible barriers to equal opportunities to participate in the agency's contracting activities. Availability estimates are crucial for the agency to set narrowly tailored annual and contract goals on its FTA-funded and locally-funded contracts.

160. For our analysis, the term "DBE" includes firms that are certified by government agencies and minority- and women-owned firms that are not certified. As discussed in Chapter II, the inclusion of all minority- and female-owned businesses in the pool casts the broad net approved by the courts and recommended by USDOT that supports the remedial nature of the programs. See *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715, 723 (7th Cir. 2007), cert. denied 15-1827, June 26, 2017 ("*Northern Contracting III*") (The "remedial nature of the federal scheme militates in favor of a method of DBE availability calculation that casts a broader net."). See also [https://www.transportation.gov/sites/dot.gov/files/docs/Tips\\_for\\_Goal-Setting\\_in\\_DBE\\_Program\\_20141106.pdf](https://www.transportation.gov/sites/dot.gov/files/docs/Tips_for_Goal-Setting_in_DBE_Program_20141106.pdf).

We applied the “custom census” approach with refinements to estimate availability. As recognized by the courts and the National Model Disparity Study Guidelines,<sup>161</sup> this methodology in general is superior to the other methods for at least four reasons.

- First, it provides an internally consistent and rigorous “apples to apples” comparison between firms in the availability numerator and those in the denominator. Other approaches often have different definitions for the firms in the numerator (*e.g.*, certified DBEs or firms that respond to a survey) and the denominator (*e.g.*, registered vendors or the Census Bureau’s County Business Patterns data).
- Second, by examining a comprehensive group of firms, it “casts a broader net” beyond those known to the agency. As recognized by the courts, this comports with the remedial nature of contracting affirmative action programs by seeking to bring in businesses that have historically been excluded. A custom census is less likely to be tainted by the effects of past and present discrimination than other methods, such as bidders lists, because it seeks out firms in the agency’s market areas that have not been able to access its opportunities.
- Third, this approach is less impacted by variables affected by discrimination. Factors such as firm age, size, qualifications, and experience are all elements of business success where discrimination would be manifested. Most courts have held that the results of discrimination – which impact factors affecting capacity – should not be the benchmark for a program designed to ameliorate the effects of discrimination. They have acknowledged that minority- and women-owned firms may be smaller, newer, and otherwise less competitive than non-M/WBEs because of the very discrimination sought to be remedied by race-conscious contracting programs. Racial and gender differences in these “capacity” factors are the outcomes of discrimination and it is therefore inappropriate as a matter of economics and statistics to use them as “control” variables in a disparity study.<sup>162</sup>
- Fourth, it has been upheld by every court that has reviewed it, including most recently in the successful defense of the Illinois State Toll Highway’s DBE program, for which we served as testifying experts.<sup>163</sup>

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161. *National Disparity Study Guidelines*, pp.57-58.

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

Using this framework, CHA utilized three databases to estimate availability:

1. CTA's Final Contract Data File (described in Section A of this Chapter).
2. A Master D/M/WBE Directory compiled by CHA.
3. Dun & Bradstreet/Hoovers Database downloaded from the companies' website.

The Master D/M/WBE Directory combined the results of an exhaustive search for directories and other lists containing information about minority- and women-owned businesses. The resulting list of minority- and women-owned businesses is comprehensive. After compiling the Master D/M/WBE Directory, we limited the firms we used in our analysis to those operating within CTA's constrained product market.

We next developed a custom database from Hoovers, a Dun & Bradstreet company. Hoovers maintains a comprehensive, extensive and regularly updated listing of all firms conducting business. The database includes a vast amount of information on each firm, including location and detailed industry codes, and is the broadest publicly available data source for firm information. We purchased the information from Hoovers for the firms in the NAICS codes located in CTA's market area in order to form our custom Dun & Bradstreet/Hoovers Database. In the initial download, the data from Hoovers simply identified a firm as being minority-owned.<sup>164</sup> However, the company does keep detailed information on ethnicity (*i.e.*, is the minority firm owner Black, Hispanic, Asian, or Native American). We obtained this additional information from Hoovers by special request.<sup>165</sup>

We merged these three databases to form an accurate estimate of firm availability to the agency. Tables 4-8 through 4-10 present data on:

- The unweighted availability by race and gender and by NAICS codes for FTA-funded contracts in CTA's constrained product markets, which can be used to assist CTA to set narrowly tailored contract goals;
- The weights used to adjust the unweighted numbers<sup>166</sup>; and
- The final estimates of the weighted averages of the individual 6-digit level availability estimates in CTA's market areas. These weighted availability estimates can be used by the agency to set its DBE goals for FTA-funded projects under 49 C.F.R. § 26.45(c).

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163. *Midwest Fence, Corp. v. U.S. Department of Transportation et al*, 840 F.3d 932 (7th Cir. 2016) ("*Midwest Fence II*"); see also *Northern Contracting III*, 473 F.3d 715 (7th Cir. 2007), *cert. denied*, 137 S.Ct. 2292 (2017).

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

165. Hoovers was able to provide the detailed information for 75% of the firms. We used the available information to estimate the detailed information for the firms where the data were not provided.

166. These weights are equivalent to the share of contract dollars presented in the previous section.

**b. DBE Availability in Chicago Transit Authority's Market for FTA-Funded Contracts**

**Table 4-8: Unweighted Availability for FTA-Funded Contracts**

NAICS	Black	Latino	Asian	Native American	White Women	DBE	Non-DBE	Total
236210	7.3%	6.1%	4.2%	0.1%	7.0%	24.7%	75.3%	100.0%
236220	9.5%	6.6%	4.5%	0.1%	7.8%	28.6%	71.4%	100.0%
237310	8.6%	12.1%	4.3%	0.4%	9.7%	35.1%	64.9%	100.0%
237990	10.3%	11.8%	7.1%	0.0%	11.3%	40.4%	59.6%	100.0%
238110	26.4%	37.1%	9.3%	0.0%	14.3%	87.1%	12.9%	100.0%
238120	10.3%	14.9%	3.7%	0.1%	19.5%	48.4%	51.6%	100.0%
238140	4.6%	3.2%	1.3%	0.1%	8.5%	17.7%	82.3%	100.0%
238160	1.9%	1.3%	0.5%	0.0%	3.5%	7.2%	92.8%	100.0%
238210	4.2%	2.2%	1.6%	0.1%	8.7%	16.8%	83.2%	100.0%
238220	2.3%	1.5%	0.8%	0.1%	4.6%	9.3%	90.7%	100.0%
238320	4.9%	2.8%	1.0%	0.0%	4.7%	13.4%	86.6%	100.0%
238350	5.2%	4.4%	1.4%	0.0%	4.0%	15.1%	84.9%	100.0%
238910	8.7%	12.5%	4.1%	0.3%	11.0%	36.6%	63.4%	100.0%
238990	3.2%	3.2%	1.5%	0.1%	5.4%	13.4%	86.6%	100.0%
336120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423120	1.4%	1.7%	1.4%	0.1%	4.5%	9.0%	91.0%	100.0%
423830	0.9%	0.7%	0.6%	0.0%	4.9%	7.2%	92.8%	100.0%
423860	2.2%	1.8%	1.1%	0.1%	6.0%	11.2%	88.8%	100.0%
541310	3.9%	3.1%	2.9%	0.1%	10.1%	20.1%	79.9%	100.0%
541330	5.9%	4.2%	6.4%	0.2%	7.9%	24.6%	75.4%	100.0%
541512	5.7%	3.1%	5.1%	0.2%	9.0%	23.1%	76.9%	100.0%
811111	0.3%	0.3%	0.2%	0.0%	3.0%	3.8%	96.2%	100.0%
811310	0.7%	0.5%	0.5%	0.0%	4.5%	6.3%	93.7%	100.0%
<b>Total</b>	<b>3.7%</b>	<b>3.0%</b>	<b>2.1%</b>	<b>0.1%</b>	<b>6.2%</b>	<b>15.0%</b>	<b>85.0%</b>	<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data; Hoovers; CHA Master Directory

**Table 4-9: Share of Chicago Transit Authority's Spending  
on FTA-Funded Contracts by NAICS Code**

<b>NAICS</b>	<b>NAICS Code Description</b>	<b>WEIGHT (Pct Share of Total Sector Dollars)</b>
236210	Industrial Building Construction	1.8%
236220	Commercial and Institutional Building Construction	12.5%
237310	Highway, Street, and Bridge Construction	8.4%
237990	Other Heavy and Civil Engineering Construction	1.8%
238110	Poured Concrete Foundation and Structure Contractors	1.2%
238120	Structural Steel and Precast Concrete Contractors	1.7%
238140	Masonry Contractors	2.8%
238160	Roofing Contractors	0.3%
238210	Electrical Contractors and Other Wiring Installation Contractors	7.2%
238220	Plumbing, Heating, and Air-Conditioning Contractors	5.0%
238320	Painting and Wall Covering Contractors	0.6%
238350	Finish Carpentry Contractors	1.0%
238910	Site Preparation Contractors	3.3%
238990	All Other Specialty Trade Contractors	0.6%
336120	Heavy Duty Truck Manufacturing	8.8%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	0.5%
423830	Industrial Machinery and Equipment Merchant Wholesalers	10.9%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	6.2%
541310	Architectural Services	7.0%
541330	Engineering Services	8.2%
541512	Computer Systems Design Services	2.0%
811111	General Automotive Repair	7.0%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	1.1%
<b>Total</b>		<b>100.0%</b>

*Source: CHA analysis of Chicago Transit Authority data*

**Table 4-10: Aggregated Weighted Availability for FTA-Funded Contracts**

Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
4.8%	4.5%	2.7%	0.1%	6.9%	19.0%	81.0%	100.0%

Source: CHA analysis of Chicago Transit Authority data; Hoovers; CHA Master Directory

Because Congress has already determined that discrimination operates in the market for federally-funded transportation contracts, local governments do not perform a disparity analysis on USDOT-funded contracts. Under 49 CF.R. Part 26, all that is required is an availability analysis for recipients outside the Ninth 'circuit Court of Appeals' jurisdiction.

## C. CTA's Product and Geographic Markets for Locally-Funded Contracts

The analysis of the CTA's product and geographic markets for non-FTA-funded contracts followed the same approach that was used for contracts funded by the FTA: we used the 1 percent rule to determine the unconstrained product market; identified the geographic market for the agency; and used the geographic parameters to shape the constrained product market.

### 1. CTA's Unconstrained Product Markets for Locally-Funded Contracts

Tables 4-11 through 4-13 present the NAICS codes used to define the unconstrained product market for CTA's locally-funded contracts.

**Table 4-11: Industry Percentage Distribution of Contracts by Dollars Paid for Locally-Funded Contracts, All Contracts**

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
441310	Automotive Parts and Accessories Stores	28.5%	28.5%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	18.3%	46.8%
238210	Electrical Contractors and Other Wiring Installation Contractors	9.2%	56.0%
446110	Pharmacies and Drug Stores	8.4%	64.4%
237310	Highway, Street, and Bridge Construction	5.8%	70.2%

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NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
236220	Commercial and Institutional Building Construction	2.4%	72.5%
561320	Temporary Help Services	1.9%	74.5%
541511	Custom Computer Programming Services	1.8%	76.3%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	1.8%	78.1%
541613	Marketing Consulting Services	1.4%	79.5%
238160	Roofing Contractors	1.3%	80.7%
238290	Other Building Equipment Contractors	1.3%	82.0%
<b>TOTAL</b>			<b>100.0%<sup>a</sup></b>

*a. An additional 101 NAICS codes contained 18.0% of all net CTA spending to all contractors. Appendix D contains the entire list of NAICS codes and the total contract dollars each code received.*

*Source: CHA analysis of Chicago Transit Authority data*

**Table 4-12: Industry Percentage Distribution of Contracts by Dollars Paid  
for Locally-Funded Contracts, Prime Contracts**

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
441310	Automotive Parts and Accessories Stores	36.9%	36.9%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	23.7%	60.6%
446110	Pharmacies and Drug Stores	10.9%	71.5%
237310	Highway, Street, and Bridge Construction	6.9%	78.4%
238210	Electrical Contractors and Other Wiring Installation Contractors	3.8%	82.2%
236220	Commercial and Institutional Building Construction	3.0%	85.2%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	2.2%	87.4%
541511	Custom Computer Programming Services	1.7%	89.1%
221210	Natural Gas Distribution	1.2%	90.3%
238290	Other Building Equipment Contractors	1.0%	91.2%
<b>TOTAL</b>			<b>100.0%<sup>a</sup></b>

a. An additional 17 NAICS codes contained 8.8% of all net CTA spending to prime contractors. Appendix D contains the entire list of NAICS codes and the total contract dollars each code received.

Source: CHA analysis of Chicago Transit Authority data

**Table 4-13: Industry Percentage Distribution of Contracts by Dollars Paid  
for Locally-Funded Contracts, Subcontracts**

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238210	Electrical Contractors and Other Wiring Installation Contractors	27.5%	27.5%
561320	Temporary Help Services	8.4%	35.9%
541613	Marketing Consulting Services	6.0%	41.9%
238160	Roofing Contractors	5.6%	47.5%
237990	Other Heavy and Civil Engineering Construction	3.3%	50.9%
238350	Finish Carpentry Contractors	3.1%	53.9%
238910	Site Preparation Contractors	3.0%	57.0%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238990	All Other Specialty Trade Contractors	3.0%	59.9%
238120	Structural Steel and Precast Concrete Contractors	2.9%	62.9%
484220	Specialized Freight (except Used Goods) Trucking, Local	2.9%	65.7%
562910	Remediation Services	2.5%	68.3%
541511	Custom Computer Programming Services	2.5%	70.7%
238290	Other Building Equipment Contractors	2.2%	72.9%
237310	Highway, Street, and Bridge Construction	2.0%	75.0%
561720	Janitorial Services	1.8%	76.8%
541420	Industrial Design Services	1.7%	78.4%
238220	Plumbing, Heating, and Air-Conditioning Contractors	1.6%	80.1%
561612	Security Guards and Patrol Services	1.5%	81.6%
238320	Painting and Wall Covering Contractors	1.4%	83.0%
336510	Railroad Rolling Stock Manufacturing	1.4%	84.4%
238140	Masonry Contractors	1.1%	85.5%
332322	Sheet Metal Work Manufacturing	1.1%	86.6%
<b>TOTAL</b>			<b>100.0%<sup>a</sup></b>

a. An additional 80 NAICS codes contained 13.4% of all net CTA spending to subcontractors. Appendix D, Table D-2 contains the entire list of NAICS codes and the total contract dollars each code received.

Source: CHA analysis of Chicago Transit Authority data

## 2. CTA's Geographic Market for Locally-Funded Contracts

The state of Illinois captured 96.5% of the unconstrained product market dollars. Table 4-14 indicates the four counties that captured 97.5% of the state dollars and, therefore, constitute the geographic market.

**Table 4-14: Distribution of Contracts in Chicago Transit Authority's Unconstrained Product Market for Locally-Funded Contracts**

State/County	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
Cook	69.609%	69.609%
Grundy	21.507%	91.117%
Lake	2.999%	94.115%
Dupage	1.992%	96.107%
Will	1.645%	97.753%
Madison	1.300%	99.053%
Kane	0.863%	99.916%
Kendall	0.079%	99.995%
Kankakee	0.005%	100.000%
<b>TOTAL</b>		<b>100.0%<sup>a</sup></b>

a. Grundy County was home to just one contract where the work was in NAICS code 424720.

Source: CHA analysis of Chicago Transit Authority data.

### 3. CTA's Utilization of DBEs on Locally-Funded Contracts

Tables 4-15 through 4-17 present data on the utilization of total contract dollars paid using non-FTA dollars in the constrained product market. It is important to note the contract dollar shares are equivalent to the weight of each NAICS code spending. These weights were used to transform data from unweighted availability to weighted availability, shown below.

**Table 4-15: NAICS Code Distribution of Locally-Funded Contract Dollars**

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
441310	Automotive Parts and Accessories Stores	\$263,836,976.00	33.79%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$169,872,688.00	21.76%
446110	Pharmacies and Drug Stores	\$77,677,488.00	9.95%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$68,132,352.00	8.73%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
237310	Highway, Street, and Bridge Construction	\$52,326,948.00	6.70%
236220	Commercial and Institutional Building Construction	\$21,996,452.00	2.82%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	\$15,944,367.00	2.04%
541613	Marketing Consulting Services	\$12,687,313.00	1.62%
238290	Other Building Equipment Contractors	\$11,782,852.00	1.51%
238160	Roofing Contractors	\$10,722,071.00	1.37%
561320	Temporary Help Services	\$9,847,255.00	1.26%
561612	Security Guards and Patrol Services	\$7,247,312.00	0.93%
237990	Other Heavy and Civil Engineering Construction	\$7,025,091.50	0.90%
238120	Structural Steel and Precast Concrete Contractors	\$6,052,736.00	0.78%
238910	Site Preparation Contractors	\$5,755,529.00	0.74%
562910	Remediation Services	\$5,398,416.00	0.69%
541511	Custom Computer Programming Services	\$5,241,446.50	0.67%
484220	Specialized Freight (except Used Goods) Trucking, Local	\$4,889,340.00	0.63%
238990	All Other Specialty Trade Contractors	\$4,448,247.50	0.57%
238350	Finish Carpentry Contractors	\$4,008,872.00	0.51%
561720	Janitorial Services	\$3,831,744.00	0.49%
541420	Industrial Design Services	\$3,505,342.00	0.45%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$3,422,613.75	0.44%
238140	Masonry Contractors	\$2,338,564.00	0.30%
332322	Sheet Metal Work Manufacturing	\$2,168,469.00	0.28%
336510	Railroad Rolling Stock Manufacturing	\$405,437.00	0.05%
238320	Painting and Wall Covering Contractors	\$219,730.00	0.03%
<b>Total</b>		<b>\$2,264,104,616.00</b>	<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data.

**Table 4-16: Distribution of Locally-Funded Contract Dollars by Race and Gender  
(total dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
236220	\$0	\$0	\$0	\$0	\$0	\$0	\$21,996,451	\$21,996,451
237310	\$268,303	\$804,834	\$0	\$0	\$739,397	\$1,812,534	\$50,514,416	\$52,326,950
237990	\$1,678,377	\$0	\$0	\$0	\$0	\$1,678,377	\$5,346,714	\$7,025,091
238120	\$581,101	\$3,893,596	\$0	\$0	\$710,701	\$5,185,398	\$867,338	\$6,052,736
238140	\$2,330,744	\$7,820	\$0	\$0	\$0	\$2,338,564	\$0	\$2,338,564
238160	\$9,266,832	\$0	\$0	\$0	\$0	\$9,266,832	\$1,455,239	\$10,722,071
238210	\$10,899,216	\$18,173,821	\$0	\$0	\$1,834,823	\$30,907,860	\$37,224,490	\$68,132,349
238220	\$0	\$117,283	\$15,000	\$0	\$250,338	\$382,621	\$3,039,993	\$3,422,614
238290	\$129,003	\$0	\$2,119,224	\$0	\$616,015	\$2,864,242	\$8,918,611	\$11,782,852
238320	\$0	\$0	\$0	\$0	\$219,730	\$219,730	\$0	\$219,730
238350	\$109,720	\$1,835,702	\$0	\$0	\$1,563,305	\$3,508,727	\$500,145	\$4,008,872
238910	\$1,004,514	\$698,375	\$0	\$0	\$1,729,640	\$3,432,529	\$2,323,000	\$5,755,529
238990	\$122,250	\$1,230,348	\$50,443	\$24,272	\$970,060	\$2,397,373	\$2,050,874	\$4,448,248
332322	\$124,500	\$77,000	\$0	\$0	\$0	\$201,500	\$1,966,969	\$2,168,469
336510	\$0	\$0	\$0	\$0	\$0	\$0	\$405,437	\$405,437
423860	\$0	\$0	\$0	\$0	\$0	\$0	\$15,944,367	\$15,944,367
424720	\$0	\$49,978	\$0	\$0	\$0	\$49,978	\$169,822,704	\$169,872,682
441310	\$0	\$0	\$0	\$0	\$0	\$0	\$263,836,976	\$263,836,976
446110	\$0	\$0	\$0	\$0	\$0	\$0	\$77,677,488	\$77,677,488
484220	\$0	\$0	\$0	\$0	\$4,889,340	\$4,889,340	\$0	\$4,889,340
541420	\$0	\$0	\$0	\$0	\$3,505,342	\$3,505,342	\$0	\$3,505,342

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
541511	\$0	\$0	\$4,156,000	\$0	\$0	\$4,156,000	\$1,085,446	\$5,241,446
541613	\$0	\$0	\$0	\$0	\$12,687,313	\$12,687,313	\$0	\$12,687,313
561320	\$9,847,255	\$0	\$0	\$0	\$0	\$9,847,255	\$0	\$9,847,255
561612	\$6,489,392	\$0	\$0	\$0	\$0	\$6,489,392	\$757,920	\$7,247,312
561720	\$3,439,874	\$0	\$0	\$0	\$0	\$3,439,874	\$391,870	\$3,831,744
562910	\$5,203,715	\$0	\$78,500	\$0	\$0	\$5,282,215	\$116,201	\$5,398,416
<b>Total</b>	<b>\$51,494,797</b>	<b>\$26,888,757</b>	<b>\$6,419,167</b>	<b>\$24,272</b>	<b>\$29,716,004</b>	<b>\$114,542,997</b>	<b>\$666,242,649</b>	<b>\$780,785,645</b>

Source: CHA analysis of Chicago Transit Authority data

**Table 4-17: Distribution of Locally-Funded Contract Dollars by Race and Gender  
(share of total dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
236220	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
237310	0.5%	1.5%	0.0%	0.0%	1.4%	3.5%	96.5%	100.0%
237990	23.9%	0.0%	0.0%	0.0%	0.0%	23.9%	76.1%	100.0%
238120	9.6%	64.3%	0.0%	0.0%	11.7%	85.7%	14.3%	100.0%
238140	99.7%	0.3%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
238160	86.4%	0.0%	0.0%	0.0%	0.0%	86.4%	13.6%	100.0%
238210	16.0%	26.7%	0.0%	0.0%	2.7%	45.4%	54.6%	100.0%
238220	0.0%	3.4%	0.4%	0.0%	7.3%	11.2%	88.8%	100.0%
238290	1.1%	0.0%	18.0%	0.0%	5.2%	24.3%	75.7%	100.0%
238320	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
238350	2.7%	45.8%	0.0%	0.0%	39.0%	87.5%	12.5%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
238910	17.5%	12.1%	0.0%	0.0%	30.1%	59.6%	40.4%	100.0%
238990	2.7%	27.7%	1.1%	0.5%	21.8%	53.9%	46.1%	100.0%
332322	5.7%	3.6%	0.0%	0.0%	0.0%	9.3%	90.7%	100.0%
336510	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423860	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
424720	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
441310	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
446110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
484220	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
541420	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
541511	0.0%	0.0%	79.3%	0.0%	0.0%	79.3%	20.7%	100.0%
541613	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
561320	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
561612	89.5%	0.0%	0.0%	0.0%	0.0%	89.5%	10.5%	100.0%
561720	89.8%	0.0%	0.0%	0.0%	0.0%	89.8%	10.2%	100.0%
562910	96.4%	0.0%	1.5%	0.0%	0.0%	97.8%	2.2%	100.0%
<b>Total</b>	<b>6.6%</b>	<b>3.4%</b>	<b>0.8%</b>	<b>0.0%</b>	<b>3.8%</b>	<b>14.7%</b>	<b>85.3%</b>	<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data

#### 4. Availability of DBEs in CTA's Markets for Locally-funded Contracts

Similar to the analysis of DBE availability in the constrained product market shaped by the spending of FTA-funded contracts, this analysis uses a database of available firms for the constrained product market shaped by the spending of locally-funded dollars. Tables 4-18 through 4-20 present data on unweighted availability; the weights used to adjust the unweighted numbers; and the weighted availability.

These weighted availability estimates can be used by CTA to set its goals for locally-funded projects similar to the process used for FTA-funded contracts.

Table 4-18: Unweighted Availability for Locally-Funded Contracts

NAICS	Black	Latino	Asian	Native American	White Women	DBE	Non-DBE	Total
236220	10.4%	6.7%	3.6%	0.1%	7.9%	28.7%	71.3%	100.0%
237310	10.5%	12.6%	4.3%	0.3%	9.9%	37.6%	62.4%	100.0%
237990	8.1%	12.3%	6.6%	0.0%	10.8%	37.8%	62.2%	100.0%
238120	10.8%	17.9%	3.7%	0.0%	15.1%	47.5%	52.5%	100.0%
238140	4.6%	3.6%	1.0%	0.0%	7.5%	16.7%	83.3%	100.0%
238160	1.8%	1.2%	0.4%	0.0%	3.4%	6.8%	93.2%	100.0%
238210	4.3%	2.5%	1.1%	0.0%	8.1%	16.0%	84.0%	100.0%
238220	2.4%	1.4%	0.6%	0.0%	4.4%	8.9%	91.1%	100.0%
238290	12.6%	7.1%	4.6%	0.0%	16.5%	40.9%	59.1%	100.0%
238320	4.9%	2.2%	0.7%	0.0%	4.7%	12.6%	87.4%	100.0%
238350	5.7%	3.6%	1.2%	0.0%	3.6%	14.1%	85.9%	100.0%
238910	9.4%	12.2%	3.0%	0.2%	10.9%	35.7%	64.3%	100.0%
238990	3.5%	3.0%	1.2%	0.1%	5.3%	13.2%	86.8%	100.0%
332322	3.1%	2.9%	1.3%	0.0%	9.6%	16.9%	83.1%	100.0%
336510	0.0%	0.0%	0.0%	0.0%	9.8%	9.8%	90.2%	100.0%
423860	2.6%	2.0%	0.7%	0.0%	6.2%	11.5%	88.5%	100.0%
424720	3.7%	3.2%	2.6%	0.0%	3.7%	13.2%	86.8%	100.0%
441310	0.8%	1.0%	0.3%	0.0%	2.9%	4.9%	95.1%	100.0%
446110	0.4%	0.2%	0.1%	0.0%	2.3%	3.1%	96.9%	100.0%
484220	2.6%	5.9%	0.8%	0.0%	4.6%	13.9%	86.1%	100.0%
541420	37.5%	12.5%	25.0%	0.0%	25.0%	100.0%	0.0%	100.0%
541511	4.1%	2.0%	3.2%	0.0%	5.4%	14.8%	85.2%	100.0%
541613	26.4%	19.3%	9.3%	0.0%	43.6%	98.6%	1.4%	100.0%
561320	7.9%	3.7%	3.9%	0.1%	10.6%	26.2%	73.8%	100.0%
561612	11.5%	3.8%	1.8%	0.1%	4.4%	21.7%	78.3%	100.0%
561720	5.1%	2.1%	1.1%	0.0%	11.2%	19.5%	80.5%	100.0%
562910	11.5%	5.7%	2.3%	0.0%	8.0%	27.4%	72.6%	100.0%
<b>Total</b>	<b>4.5%</b>	<b>3.5%</b>	<b>1.5%</b>	<b>0.0%</b>	<b>6.2%</b>	<b>15.6%</b>	<b>84.4%</b>	<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data; Hoovers; CHA Master Directory.

**Table 4-19: Share of Chicago Transit Authority's Spending on Locally-Funded Contracts by NAICS Code**

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
236220	Commercial and Institutional Building Construction	2.8%
237310	Highway, Street, and Bridge Construction	6.7%
237990	Other Heavy and Civil Engineering Construction	0.9%
238120	Structural Steel and Precast Concrete Contractors	0.8%
238140	Masonry Contractors	0.3%
238160	Roofing Contractors	1.4%
238210	Electrical Contractors and Other Wiring Installation Contractors	8.7%
238220	Plumbing, Heating, and Air-Conditioning Contractors	0.4%
238290	Other Building Equipment Contractors	1.5%
238320	Painting and Wall Covering Contractors	0.0%
238350	Finish Carpentry Contractors	0.5%
238910	Site Preparation Contractors	0.7%
238990	All Other Specialty Trade Contractors	0.6%
332322	Sheet Metal Work Manufacturing	0.3%
336510	Railroad Rolling Stock Manufacturing	0.1%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	2.0%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	21.8%
441310	Automotive Parts and Accessories Stores	33.8%
446110	Pharmacies and Drug Stores	9.9%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.6%
541420	Industrial Design Services	0.4%
541511	Custom Computer Programming Services	0.7%
541613	Marketing Consulting Services	1.6%
561320	Temporary Help Services	1.3%
561612	Security Guards and Patrol Services	0.9%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
561720	Janitorial Services	0.5%
562910	Remediation Services	0.7%
<b>Total</b>		<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data

**Table 4-20: Aggregated Weighted Availability for Locally-Funded Contracts**

Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
4.0%	3.4%	1.8%	0.0%	5.6%	14.8%	85.2%	100.0%

Source: CHA analysis of Chicago Transit Authority data; Hoovers; CHA Master Directory

Similar to the determination by Congress that discrimination exists in FTA’s market, the Illinois legislature has already determined that discrimination operates in the market for state-funded transportation contracts. It is therefore not appropriate to perform a disparity analysis on locally-funded contracts.

# V. ANALYSIS OF DISPARITIES IN THE CHICAGO TRANSIT AUTHORITY'S GEOGRAPHIC MARKET

## A. Introduction

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

Racial discrimination pervades every aspect of a society in which it is found. It is found above all in attitudes of both races, but also in social relations, in intermarriage, in residential location, and frequently in legal barriers. It is also found in levels of economic accomplishment; this is income, wages, prices paid, and credit extended.<sup>167</sup>

This Chapter explores the data and literature relevant to how discrimination in the Chicago Transit Authority's ("CTA") geographic market and throughout the wider economy affects the ability of minorities and women to fairly and fully engage in CTA contract opportunities. First, we analyzed the rates at which D/M/WBEs in the Chicago metropolitan area form firms and their earnings from those firms. Next, we examined the distribution of firms, their sales and their employees across different demographic groups. Next, we summarize the literature on barriers to equal access to commercial credit. Finally, we summarize the literature on barriers to equal access to human capital. All three types of evidence have been found by the courts to be relevant and probative of whether a government will be a passive participant in discrimination without some type of affirmative interventions.

A key element to determine the need for government intervention through contract goals in the sectors of the economy where the CTA procures goods and services is an analysis of the extent of disparities in those sectors independent of the agency's intervention through its contracting affirmative action programs.

The courts have repeatedly held that analysis of disparities in the rates at which D/M/WBEs in the government's markets form businesses compared to similar non-

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167. Arrow, Kenneth J., "What Has Economics to Say about Racial Discrimination?" *Journal of Economic Perspectives*, (1998), 12(2), pp. 91-100.

D/M/WBEs, their earnings from such businesses, and their access to capital markets are highly relevant to the determination of whether the market functions properly for all firms regardless of the race or gender of their ownership.<sup>168</sup> These analyses contributed most recently to the successful defense of the Illinois State Toll Highway's Disadvantaged Business Enterprise ("DBE") Program.<sup>169</sup> As explained by the Tenth Circuit in upholding the U.S. Department of Transportation's DBE program, this type of evidence

demonstrates the existence of two kinds of discriminatory barriers to minority subcontracting enterprises, both of which show a strong link between racial disparities in the federal government's disbursements of public funds for construction contracts and the channeling of those funds due to private discrimination. The first discriminatory barriers are to the formation of qualified minority subcontracting enterprises due to private discrimination, precluding from the outset competition for public construction contracts by minority enterprises. The second discriminatory barriers are to fair competition between minority and non-minority subcontracting enterprises, again due to private discrimination, precluding existing minority firms from effectively competing for public construction contracts. The government also presents further evidence in the form of local disparity studies of minority subcontracting and studies of local subcontracting markets after the removal of affirmative action programs... The government's evidence is particularly striking in the area of the race-based denial of access to capital, without which the formation of minority subcontracting enterprises is stymied.<sup>170</sup>

Business discrimination studies and lending studies are relevant and probative because they show a strong link between the disbursement of public funds and the channeling of those funds due to private discrimination. "Evidence that private discrimination results in barriers to business formation is relevant because it demonstrates that M/WBEs are precluded *at the outset* from competing for public construction contracts. Evidence of barriers to fair competition is also relevant because it again demonstrates that *existing* M/WBEs are precluded from competing for public contracts."<sup>171</sup> Despite the contentions of plaintiffs that possibly dozens of factors might influence the ability of any individual to succeed in business,

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168. See the discussion in Chapter II of the legal standards applicable to contracting affirmative action programs.

169. *Midwest Fence Corp. v. Illinois Department of Transportation, Illinois State Toll Highway Authority et al*, 840 F.3d 942 (7th Cir. 2016) ("*Midwest Fence II*") (upholding the Illinois Tollway's program for state funded contracts modeled after Part 26 and based on CHA's expert testimony, including about disparities in the overall Illinois construction industry); see also *Builders Association of Greater Chicago v. City of Chicago*, 298 F.Supp.2d 725 (N.D. Ill. 2003) (holding that City of Chicago's M/WBE program for local construction contracts met compelling interest using this framework).

170. *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1168-1169 (10th Cir. 2000), cert. granted then dismissed as improvidently granted, 532 U.S. 941 (2001) ("*Adarand VII*").

171. *Id.*

the courts have rejected such impossible tests and held that business formation studies are not flawed because they cannot control for subjective descriptions such as “quality of education,” “culture” and “religion.”

For example, in unanimously upholding the USDOT DBE Program, the courts agree that disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms and the disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners are strong evidence of the continuing effects of discrimination.<sup>172</sup> The Eighth Circuit Court of Appeals took a “hard look” at the evidence Congress considered, and concluded that the legislature had

spent decades compiling evidence of race discrimination in government highway contracting, of barriers to the formation of minority-owned construction businesses, and of barriers to entry. In rebuttal, [the plaintiffs] presented evidence that the data were susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.<sup>173</sup>

Likewise, in holding that the DBE program regulations meet strict scrutiny, the court in the *Western States* opinion relied on the “substantial body of statistical and anecdotal materials” considered by Congress, including studies based on Census data that provide “ample” evidence of barriers to the formation of minority-owned firms in the transportation contracting industry.<sup>174</sup>

This type of court-approved analysis is especially important for an agency such as the CTA, which has been implementing a program in conformance with 49 CF.R. Part 26 for many years. The CTA’s remedial market interventions through the use of DBE contract goals may ameliorate the disparate impacts of marketplace discrimination in the agency’s own contracting activities. Put another way, the program’s success in moving towards parity for minority and women firms may be “masking” the effects of discrimination that otherwise would result in disparities in D/M/WBE utilization that mirrors that of the overall economy.

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172. *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2005 U.S. Dist. LEXIS 19868, at \*64 (Sept. 8, 2005) (“*Northern Contracting II*”).

173. *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d 970 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041 (2004); *see also Adarand VII*, 228 F.3d at 1175 (plaintiff has not met its burden “of introducing credible, particularized evidence to rebut the government’s initial showing of the existence of a compelling interest in remedying the nationwide effects of past and present discrimination in the federal construction procurement subcontracting market.”).

174. *Western States Paving Co., Inc. v. Department of Transportation*, 407 F.3d 983, 993 (9th Cir. 2005), *cert. denied*, 546 U.S. 1170 (2006).

## B. Disparate Treatment in the Marketplace: Evidence from the Census Bureau's 2012 - 2016 American Community Survey

One key question is whether firms owned by Non-Whites and White Women face disparate treatment in the marketplace without the intervention of CTA's DBE programs. In this section, we explore this question using the Census Bureau's *American Community Survey* ("ACS") data to address other aspects of this question. One element asks if demographic differences exist in the wage and salary income received by private sector workers. Beyond the issue of bias in the incomes generated in the private sector, this exploration is important for the issue of possible variations in the rate of business formation by different demographic groups. One of the determinants of business formation is the pool of financial capital at the disposal of the prospective entrepreneur. The size of this pool is related to the income level of the individual either because the income level impacts the amount of personal savings that can be used for start-up capital or the income level affects one's ability to borrow funds. Consequently, if particular demographic groups receive lower wages and salaries then they would then have access to a smaller pool of financial capital, and thus reduce the likelihood of business formation.

The ACS *Public Use Microdata Sample* ("PUMS") is useful in addressing these issues. The ACS is an annual survey of one percent of the population and the PUMS provides detailed information at the individual level. In order to obtain robust results from our analysis, we used the file that combines the most recent data available for years 2012 through 2016.<sup>175</sup> With this rich data set, our analysis can establish with greater certainty any causal links between race, gender and economic outcomes.

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

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175. Data from 2012 - 2016 American Community Survey are the most recent for a five-year period. For more information about the ACS PUMS, see <http://www.census.gov/acs/>.

wide range of additional variables such as age, education, occupation, and state of residence in the analysis.

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

With respect to the first result of regression analysis, we will examine how variations in the race, gender, and industry of individuals impact the wages and other economic outcomes received by individuals. The technique allows us to determine the effect of changes in one variable, assuming that the other determining variables are the same. That is, we compare individuals of different races, but of the same gender and in the same industry; or we compare individuals of different genders, but of the same race and the same industry; or we compare individuals in different industries, but of the same race and gender. We are determining the impact of changes in one variable (*e.g.*, race, gender or industry) on another variable (wages), “controlling for” the movement of any other independent variables.

With respect to the second result of regression analysis, this technique also allows us to determine the statistical significance of the relationship between the dependent variable and independent variable. For example, the relationship between gender and wages might exist but we find that it is not statistically different from zero. In this case, we are not confident that there is not any relationship between the two variables. If the relationship is not statistically different from zero, then a variation in the independent variable has no impact on the dependent variable. The regression analysis allows us to say with varying degrees of statistical confidence that a relationship is different from zero. If the estimated relationship is statistically significant at the 0.05 level, that indicates we are 95% confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.01 level, that indicates we are 99% confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.001 level, that indicates we are 99.9% confident that the relationship is different from zero.<sup>176</sup>

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

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

in business earnings received by a demographic group relative to White men (business earnings differentials).

## 1. All Industries Combined in the Chicago Metropolitan Area

### a. Business Formation Rates

One method of exploring differences in economic outcomes is to examine the rate at which different demographic groups form businesses. We developed these business formation rates using ACS data. Table 5-1 presents these results. The Table indicates that White men have higher business formation rates compared to Non-Whites and White Women. Table 5-2 utilizes probit regression analysis to examine the probability of forming a business after controlling for important factors beyond race and gender. This table indicates that Non-Whites and White Women are less likely to form businesses compared to similarly situated White men. Further, Blacks are 4.2% less likely to form a business compared to White men after other key explanatory variables are controlled. These tables reinforce the conclusion that there are significant differences in the rate of Non-Whites and White Women to form business compared to the rate of White men. Not only are business formation rates for Non-Whites and White Women lower than that of White men but also their probability of forming a business is less than White men after controlling for a variety of factors. These differences support the inference that D/M/WBEs suffer major barriers to equal access to entrepreneurial opportunities in the overall Chicago metropolitan area economy.

**Table 5-1: Business Formation Rates  
All Industries, 2012 - 2016**

Demographic Group	Business Formation Rates
Black	1.80%
Latino	1.94%
Native American	0.03%
Asian/Pacific Islander	5.12%
Other	2.55%
White Women	3.57%
Non-White Male	2.85%
White Male	7.14%

*Source: CHA calculations from the American Community Survey*

**Table 5-2: Business Formation Probabilities Relative to White Males  
All Industries, 2012 - 2016**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-4.2%***
Latino	-3.0%***
Native American	--- <sup>a</sup>
Asian/Pacific Islander	-1.2%***
Other	---
White Women	-2.5%***

*a. Many times, there were not sufficient observations in the data to conduct a reliable statistical analysis. In these instances, the tables will contain the symbol “---”.*

*Source: CHA calculations from the American Community Survey*

*\*\*\* Indicates statistical significance at the 0.001 level*

*\*\* Indicates statistical significance at the 0.01 level*

*\* Indicates statistical significance at the 0.05 level*

#### **b. Differences in Wages and Salary Incomes**

Another way to measure equity is to examine how the wage and salary incomes and business earnings of particular demographic groups compare to White men. Multiple regression statistical techniques allowed us to examine the impact of race and gender on economic outcome while controlling for other factors, such as education, that might impact outcomes.<sup>177</sup> Using these techniques and ACS data, we found that Blacks, Latinos, Native Americans, Asian/Pacific Islanders, Others, and White Women were underutilized relative to White men: controlling for other factors relevant to business success, wages and business earnings were also lower for these groups compared to White men. We report wages and business earnings because disparities in wages and business earnings can lead to disparities in business outcomes. The findings on wages and salary incomes are presented in Table 5-3. Parity would exist if the figures in Table 5-3 were 0.0%; in other words, utilization of Non-Whites and White Women would be identical to White men. The table indicates that the wage differential between Blacks and White men is -40.8%, and this means that wages received by Blacks are 40.8% less than wages received by similar White men.

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

**Table 5-3: Wage Differentials for Selected Groups Relative to White Men  
All Industries, 2012 - 2016**

Demographic Group	Wages Relative to White Men (% Change)
Black	-40.8%***
Latino	-19.8%***
Native American	-40.9%***
Asian/Pacific Islander	-36.0%***
Other	-33.8%***
White Women	-33.9%***

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

Holding constant factors such as education, age, occupation, and industry, Blacks, Latinos, White Women, Asian/Pacific Islanders and Others in the Chicago metropolitan area earn less than White men in the overall economy. Estimates of the coefficients for Black, Latino, Native American, Asian/Pacific Islander, Other and White Women are statistically significant at the 0.001 level.

**c. Differences in Business Earnings**

The same approach was used to investigate if there were differences in business earnings received by Non-Whites and White Women entrepreneurs and White Male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table 5-4 presents these findings.

**Table 5-4: Business Earnings Differentials for Selected Groups  
Relative to White Men, All Industries**

Demographic Group	Earnings Relative to White Men (% Change)
Black	-52.6%**
Latino	-32.7%
Native American	---

Demographic Group	Earnings Relative to White Men (% Change)
Asian/Pacific Islander	-19.6%
Other	---
White Women	-52.0%***

Source: CHA calculations from the American Community Survey

\*\*\* Indicates statistical significance at the 0.001 level

\*\* Indicates statistical significance at the 0.01 level

Coefficient estimates Black and White Women are statistically significant at the 0.001 and 0.01 levels respectively.

#### d. Conclusion

Using descriptive analysis, Table 5-1 shows that differentials exist between the business formation rates by Non-Whites and White Women and White Males across industry sectors. Table 5-2 presents the results of a further statistical analysis, which indicated that even after taking into account potential mitigating factors, the differential still exists. Tables 5-3 and 5.4 present data indicating differentials in wages and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect Non-Whites and White Women entrepreneurs.<sup>178</sup>

## 2. The Construction Industry in the Chicago Metropolitan Area

#### a. Business Formation Rates

Table 5-5 presents business formation rates in the Chicago metropolitan area construction industry for selected demographic groups.

**Table 5-5: Business Formation Rates, Construction, 2012 - 2016<sup>179</sup>**

Demographic Group	Business Formation Rates
Black	8.63%
Latino	5.09%
Native American	0.00%
Asian/Pacific Islander	20.86%

178. Various appendices to this Report contain additional data and methodological explanations. Appendix A provides a “Further Explanation of the Multiple Regression Analysis.” Appendix B provides a “Further Explanation of Probit Regression Analysis.” Appendix C discusses the meaning and role of “Significance Levels.”

Demographic Group	Business Formation Rates
Other	0.00%
White Women	14.25%
Non-White Male	7.68%
White Male	17.26%

Source: CHA calculations from the American Community Survey

Table 5-6 presents the results of the probit analysis for the construction industry in the Chicago metropolitan area.

**Table 5-6: Business Formation Probability Differentials for Selected Groups Relative to White Men Construction, 2012 - 2016**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-9.6%***
Latino	-12.9%***
Native American	0.0%
Asian/Pacific Islander	1.8%
Other	0.0%
White Women	-5.7%**

Source: CHA calculations from the American Community Survey

\*\*\* Indicates statistical significance at the 0.001 level

\*\* Indicates statistical significance at the 0.01 level

The analysis indicates that Blacks, Latinos, Asians and White Women in the Chicago metropolitan area form construction businesses at a lower rate compared to White men. When controlling for a variety of factors this difference is significant for Black and Latino at the 0.001 level. For White Women, this difference is statistically significant at the 0.01 level.

**b. Differences in Wage and Salary Incomes**

Table 5-7 presents the findings from the wage and salary income regression analysis examining the construction industry in the Chicago metropolitan area. The results indicate the wage differential for selected demographic groups in the Chicago metropolitan area relative to White men.

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179. There were not any Native American or Other owned construction firms in the data.

**Table 5-7: Wage Differentials for Selected Groups  
Relative to White Men Construction, 2012 - 2016**

Demographic Group	Wages Relative to White Men (% Change)
Black	-43.2%***
Latino	-22.3%***
Native American	-12.2%
Asian/Pacific Islander	-40.0%***
Other	-4.7%
White Women	-32.1%***

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

Holding constant factors such as education, age, occupation, and industry, Non-Whites and White Women in the Chicago metropolitan area earn less than White men in the construction industry. The differential ranges between 12.2% less and 43.2% less. Estimates of the coefficients for Black, Latino, Asian/Pacific Islander, and White Women are statistically significant at the 0.001 level.

**c. Differences in Business Earnings**

The same approach was used to investigate if there were differences in business earnings received by Non-White Male entrepreneurs and White Male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table 5-8 presents these findings.

**Table 5-8: Business Earnings Differentials for Selected Groups  
Relative to White Men Construction, 2012 - 2016**

Demographic Group	Earnings Relative to White Men (% Change)
Black	-111.0%
Latino	33.7%
Native American	---

Demographic Group	Earnings Relative to White Men (% Change)
Asian/Pacific Islander	-145.0%
Other	---
White Women	-125.0%

Source: CHA calculations from the American Community Survey

**d. Conclusion**

Using descriptive analysis, Table 5-5 shows that differentials do exist between the business formation rates by Non-White Males and White Males. Table 5-6 indicates that non-whites and White Women working in construction made statistically significantly lower wages compared to White men.

The small number of Native American and Other firms in construction made it impossible to make statistically significant inferences for those demographic groups.

**3. The Construction-Related Services Industry in the Chicago Metropolitan Area**

**a. Business Formation Rates**

Table 5-9 presents business formation rates in the construction-related services industry in the Chicago metropolitan area for selected demographic groups.

**Table 5-9: Business Formation Rates Construction-Related Services, 2012 - 2016**

Demographic Group	Business Formation Rates
Black	3.24%
Latino	1.22%
Native American	0.0%
Asian/Pacific Islander	5.92%
Other	17.27%
White Women	5.07%
Non-White Male	4.12%
White Male	8.61%

Source: CHA calculations from the American Community Survey

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

Table 5-10 presents the results of the probit analysis for the construction-related services industry in Chicago metropolitan area.

**Table 5-10: Business Formation Probability Differentials for Selected Groups Relative to White Men Construction-related Services, 2010 - 2014**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	---
Latino	---
Native American	---
Asian/Pacific Islander	---
Other	---
White Women	-3.3%**

Source: CHA calculations from the American Community Survey

\*\* Indicates statistical significance at the 0.01 level

White women were 3.3% less likely to form businesses in this sector compared to White men. This estimate was statistically significant at the 0.01 level. There were not sufficient observations to make reliable estimates for the other demographic groups.

**b. Differences in Wage and Salary Incomes**

Table 5-11 presents the findings from the wage and salary income regression analysis examining the construction-related services industry in the Chicago metropolitan area. This indicates the wage differential for selected demographic groups in Chicago metropolitan area relative to White men.

**Table 5-11: Wage Differentials for Selected Groups  
Relative to White Men Construction-Related Services, 2012 - 2016**

Demographic Group	Wages Relative to White Men (% Change)
Black	-40.7%***
Latino	-14.5%*
Native American	
Asian/Pacific Islander	-8.3%
Other	-61.5%
White Women	-24.4%***

Source: CHA calculations from the American Community Survey

\*\*\* Indicates statistical significance at the 0.001 level

\* Indicates statistical significance at the 0.05 level

The coefficients for Black and White Women were statistically significant at the 0.001 level.

**c. Differences in Business Earnings**

The same approach was used to investigate if there were differences in business earnings received by Non-White Male entrepreneurs and White Male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table 5-12 presents these findings.

**Table 5-12: Business Earnings Differentials for Selected Groups  
Relative to White Men Construction-related Services, 2012 - 2016**

Demographic Group	Earnings Relative to White Men (% Change)
Black	---
Latino	---
Native American	---
Asian/Pacific Islander	---
Other	---
White Women	52.1%

Source: CHA calculations from the American Community Survey

**d. Conclusion**

Because of the limited number of observations in this sector and subsequent sample size concerns it was difficult to draw statistical inferences for formation and earnings behavior in this sector.

**4. Goods in Chicago Metropolitan Area****a. Business Formation Rates**

Table 5-13 presents business formation rates in the goods industry in the Chicago metropolitan area for selected demographic groups.

**Table 5-13: Business Formation Rates Goods, 2012 - 2016**

Demographic Group	Business Formation Rates
Black	1.12%
Latino	1.21%
Native American	0.00%
Asian/Pacific Islander	5.39%
Other	0.00%
White Women	2.76%
Non-White Male	2.20%
White Male	4.26%

Source: CHA calculations from the American Community Survey

With the exception of Asian/Pacific Islanders and Native Americans, white males have a higher rate of business formation than Non-whites and White Women. (Note that there were no Native American and Other businesses in this sector.)

**Table 5-14: Business Formation Probabilities  
Relative to White Males Goods, 2012 - 2016**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	---
Latino	-0.9%
Native American	---

Demographic Group	Probability of Forming a Business Relative to White Men
Asian/Pacific Islander	0.8%
Other	---
White Women	-1.6%***

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

The coefficient for business formation probabilities was statistically significant for White Women at the 0.001 level.

**b. Differences in Wages and Salary Incomes**

**Table 5-15: Wage Differentials for Selected Groups Relative to White Men Goods, 2012 - 2016**

Demographic Group	Wages Relative to White Men (% Change)
Black	-40.3%***
Latino	-21.7%***
Native American	-26.5%
Asian/Pacific Islander	-43.2%***
Other	-39.3%*
White Women	-37.4%***

Source: CHA calculations from the American Community Survey  
 \*\*\* Indicates statistical significance at the 0.001 level  
 \* Indicates statistical significance at the 0.05 level

Holding constant factors such as education, age, occupation, and industry, Blacks, Latinos, White Women, Asian/Pacific Islanders and Others in Chicago metropolitan area earn less than White men in the overall economy. Those estimates of the coefficients for Blacks, Latinos, White Women, and Asian/Pacific Islanders are statistically significant at the 0.001 levels.

**c. Differences in Business Earnings**

The same approach was used to investigate if there were differences in business earnings received by Non-Whites and White Women entrepreneurs and White Male entrepreneurs in the goods industry. Using the PUMS, we limited the sample to the self-employed and examined how their

business income varied in response to factors such as race, gender, age, education, and industry. Table 5-4 presents these findings.

**Table 5-16: Business Earnings Differentials for Selected Groups  
Relative to White Men Goods, 2012 - 2016**

Demographic Group	Earnings Relative to White Men (% Change)
Black	---
Latino	-0.5%
Native American	---
Asian/Pacific Islander	101.0%
Other	---
White Women	-96.4%

Source: CHA calculations from the American Community Survey

Where the sample contained non-zero numbers of firms, the estimates were not statistically significant.

**d. Conclusion**

Using descriptive analysis, Table 5-13 shows that differentials exist between the business formation rates by Non-Whites and White Women and White Males (with the exception of Asian/Pacific Islanders and Native Americans). Table 5-15 does present evidence of statistically significant wage differentials, which indicate that even after considering potential mitigating factors, the differential still exists.

## 5. The Services Industry in Chicago Metropolitan Area

**a. Business Formation Rates**

Table 5-17 presents business formation rates in the Chicago metropolitan area service industry for selected demographic groups.

**Table 5-17: Business Formation Rates Services, 2012 - 2016**

Demographic Group	Business Formation Rates
Black	2.22%
Latino	2.17%
Native American	0.05%

Demographic Group	Business Formation Rates
Asian/Pacific Islander	5.24%
Other	5.07%
White Women	4.51%
Non-White Male	3.49%
White Male	8.90%

Source: CHA calculations from the American Community Survey

White Males have a higher business formation rate compared to the other demographic groups.

Table 5-18 presents the results of the probit analysis for the service industry in the Chicago metropolitan area.

**Table 5-18: Business Formation Probability Differentials for Selected Groups Relative to White Men Services, 2012 - 2016**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-4.4%***
Latino	-2.9%***
Native American	---
Asian/Pacific Islander	-1.7%***
Other	---
White Women	-2.6%***

Source: CHA calculations from the American Community Survey

\*\*\* Indicates statistical significance at the 0.001 level

The analysis indicates that Blacks, Latinos, Asians and White Women in Chicago metropolitan area are less likely to form service businesses compared to White men after controlling for key factors. The statistically significant coefficients in probability range from 1.7% to 4.4%.

**b. Differences in Wage and Salary Incomes**

Table 5-19 presents the findings from the wage and salary income regression analysis examining the service industry in the Chicago metropolitan area. The findings indicate a wage differential for selected demographic groups in Chicago metropolitan area relative to White men.

**Table 5-19: Wage Differentials for Selected Groups  
Relative to White Men Services, 2012 - 2016**

Demographic Group	Wages Relative to White Men (% Change)
Black	-44.1%***
Latino	-18.5%***
Native American	-41.4%***
Asian/Pacific Islander	-36.8%***
Other	-45.6%***
White Women	-34.2%***

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

Holding constant factors such as education, age, occupation, and industry, Blacks, Latinos, White Women, Asian/Pacific Islanders and Others in Chicago metropolitan area earn less than White men in the service industry. The statistical significance differentials range between 18.5% less and 44.1% less for earned wages.

**c. Differences in Business Earnings**

The same approach was used to investigate if there were differences in business earnings received by Non-White Male entrepreneurs and White Male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table 5-20 presents these findings.

**Table 5-20: Business Earnings Differentials for Selected Groups  
Relative to White Men Services, 2012 - 2016**

Demographic Group	Earnings Relative to White Men (% Change)
Black	-27.5%
Latino	-57.1%*
Native American	---
Asian/Pacific Islander	-31.7%
Other	---
White Women	-0.483***

Source: CHA calculations from the American Community Survey

\*\*\* Indicates statistical significance at the 0.001 level

\* Indicates statistical significance at the 0.05 level

**d. Conclusion**

Using descriptive analysis, Table 5-17 shows that differentials exist between the business formation rates by Non-White Males and White Males. Tables 5-18 and 5.19 present the results of a further statistical analysis, which indicated that even after taking into account potential mitigating factors, the differentials still exist in business formation and wages. Table 5-20 indicates statistically significant differences in business earnings for Latinos and White women.

**6. The Information Technology Industry in Chicago Metropolitan Area**

**a. Business Formation Rates**

Table 5-21 presents business formation rates in the information technology industry in the Chicago metropolitan area for selected demographic groups.

**Table 5-21: Business Formation Rates Information Technology, 2012 - 2016**

Demographic Group	Business Formation Rates
Black	3.79%
Latino	3.43%
Native American	16.67%
Asian/Pacific Islander	5.19%

Demographic Group	Business Formation Rates
Other	0.00%
White Women	4.32%
Non-White Male	4.38%
White Male	7.43%

Source: CHA calculations from the American Community Survey

\* Indicates statistical significance at the 0.05 level

White Males have a higher rate of business formation than other groups with the exception of Native Americans. (Note: there were only 2 Native American observations in the analysis.)

Table 5-22 presents the results of the probit analysis for the information technology industry in the Chicago metropolitan area.

**Table 5-22: Business Formation Probability Differentials for Selected Groups Relative to White Men Information Technology, 2012 - 2016**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-0.9%
Latino	-0.6%
Native American	---
Asian/Pacific Islander	-2.2%*
Other	---
White Women	-2.2%*

Source: CHA calculations from the American Community Survey

\* Indicates statistical significance at the 0.05 level

The absence of a statistically significant coefficient for Black and Latino may be due to the small sample size for the two groups. For Asians and White women, the coefficient was statistically significant at the 0.05 level.

#### **b. Differences in Wage and Salary Incomes**

Table 5-23 presents the findings from the wage and salary income regression analysis examining the information technology industry in Chicago metropolitan area. This indicates the wage differential for selected demographic groups in the Chicago metropolitan area relative to White men.

**Table 5-23: Wage Differentials for Selected Groups  
Relative to White Men Information Technology, 2012 - 2016**

Demographic Group	Wages Relative to White Men (% Change)
Black	-45.9%***
Latino	-23.7%***
Native American	---
Asian/Pacific Islander	-21.6%***
Other	-70.1%***
White Women	-22.7%***

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

The wage coefficients for Blacks, Latinos, Asians, Other, and White Women were statistically significant at the 0.001 level.

**c. Differences in Business Earnings**

The same approach was used to investigate if there were differences in business earnings received by Non-White Male entrepreneurs and White Male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table 5-24 presents these findings.

**Table 5-24: Business Earnings Differentials for Selected Groups  
Relative to White Men Information Technology, 2012 - 2016**

Demographic Group	Earnings Relative to White Men (% Change)
Black	-114.0%
Latino	-79.1%
Native American	---
Asian/Pacific Islander	-84.5%
Other	
White Women	-101.0%

Source: CHA calculations from the American Community Survey  
\* Indicates statistical significance at the 0.05 level

Business earnings were statistically significantly lower for Blacks, Latinos, and White Women.

**d. Conclusion**

Where there were sufficient observations to conduct a robust statistical analysis, differentials were observed.

## **C. Disparate Treatment in the Marketplace: Evidence from the Census Bureau’s 2012 Survey of Business Owners**

Every five years, the Census Bureau administers the *Survey of Business Owners* (“SBO”) to collect data on particular characteristics of businesses that report to the Internal Revenue Service receipts of \$1,000 or more.<sup>180</sup> The 2012 SBO was released on December 15, 2015, so our analysis reflects the most current data available. The SBO collects demographic data on business owners disaggregated into the following groups:<sup>181,182</sup>

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

For purposes of this analysis, the first four groups were aggregated to form a Non-White category. Since our interest is the treatment of Non-White-owned firms and White Women-owned firms, the last five groups were aggregated to form one

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

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

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

category. To ensure this aggregated group is described accurately, we label this group “not Non-White/Non-White Women”. While this label is cumbersome, it is important to be clear this group includes firms whose ownership extends beyond White men, such as firms that are not classifiable or that are publicly traded and thus have no racial ownership. In addition to the ownership demographic data, the Survey also gathers information on the sales, number of paid employees, and payroll for each reporting firm.

To examine those sectors in which CTA purchases, we analyzed SBO data on the following sectors:

- Construction
- Professional, Scientific and Technical Services
- Goods
- Other services

Because of the methods the Census Bureau uses to protect firms from being identified, the SBO data covers the entire state of Illinois. However, the makeup of the SBO data – a sample of all businesses, not the entire universe of all businesses – required some adjustments. In particular, we had to define the sectors at the 2-digit North American Industry Classification System (“NAICS”) code level, and therefore our sector definitions do not exactly correspond to the definitions used to analyze the CTA’s contract data in Chapter IV, where we are able to determine sectors at the 6-digit NAICS code level. At a more detailed level, the number of firms sampled in particular demographic and sector cells may be so small that the Census Bureau does not report the information, either to avoid disclosing data on businesses that can be identified or because the small sample size generates unreliable estimates of the universe.<sup>183</sup> We therefore report 2-digit data.

Table 5-25 presents information on which NAICS codes were used to define each sector.

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183. Even with these broad sector definitions, there were many cases when the Census Bureau did not report information. In these cases, the value will be entered into the table as “S”

**Table 5-25: 2-Digit NAICS Code Definition of Sector**

SBO Sector Label	2-Digit NAICS Codes
Construction	23
Professional, Scientific, and Technical Services <sup>a</sup>	54
Goods	31,42, 44
Other Services	48, 52, 53, 56, 61, 62, 71, 72, 81

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

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

## 1. All Industries

For a baseline analysis, we examined all industries. Table 5-26 presents data on the percentage share that each group has of the total of each of the following six business outcomes:

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

Panel A of Table 5-26 presents data for the four basic Non-White racial groups:

- Black
- Latino
- Native American
- Asian

Panel B of Table 5-26 presents data for six types of firm ownership:

- Non-white

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

Categories in the second panel are mutually exclusive. Hence, firms that are Non-White and equally owned by men and women are classified as Non-White and firms that are equally owned by Non-Whites and Whites and equally owned by men and women are classified as equally owned by Non-Whites and Whites.<sup>184</sup>

**Table 5-26: Percentage Demographic Distribution of Sales and Payroll Data  
All Industries, 2012**

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts - All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
<b>Panel A: Distribution of Non-White Firms</b>						
Black	12.49%	0.44%	1.72%	0.32%	0.76%	0.50%
Latino	8.13%	0.93%	4.97%	0.83%	1.84%	1.02%
Native American	0.37%	0.04%	0.18%	0.04%	0.07%	0.05%
Asian	6.35%	1.61%	7.84%	1.51%	2.64%	1.76%
<b>Panel B: Distribution of All Firms</b>						
Non-White	27.46%	3.09%	14.92%	2.76%	5.41%	3.43%
White Women	22.52%	2.98%	15.03%	2.69%	5.34%	3.92%
White Men	41.40%	23.64%	53.87%	22.91%	32.84%	29.43%
Equally Non-White & White	0.57%	0.14%	0.69%	0.12%	0.39%	0.26%

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

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts - All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Equally Women & Men	6.13%	1.97%	9.04%	1.82%	3.71%	2.34%
Firms Not Classifiable	1.91%	68.18%	6.45%	69.69%	52.31%	60.62%
<b>All Firms</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

Source: CHA calculations from Survey of Business Owners

Since the central issue is the possible disparate treatment of Non-White and White Women firms, Table 5-27 re-aggregates the last four groups— White men; equally Non-White and White; equally women and men; and firms not classifiable— into one group: Not Non-White/Not White Women.<sup>185</sup> We then present the shares each group has of the six indicators of firm utilization. These data were then used to calculate three disparity ratios, presented in Table 5-28:

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

For example, the disparity ratio of sales and receipts share for all firms over the share of total number of all firms for Black firms is 3.50% (as shown in Table 5-28). This is derived by taking the Black share of sales and receipts for all firms (0.44%) and dividing it by the Black share of total number of all firms (12.49%) that are presented in Table 5-27.<sup>186</sup> If Black-owned firms earned a share of sales equal to their share of total firms, the disparity would have been 100%. An index less than 100 percent indicates that a given group is being utilized less than would be expected based on its availability, and courts have adopted

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

186. Note: the data in Table 5-27 are rounded values while the data in Table 5-28 are the values resulting from division of the actual number. Thus, in this example 0.44 divided by 12.49 is 3.52 not the actual value reported in Table 5-28 of 3.50.

the Equal Employment Opportunity Commission’s “80 percent” rule that a ratio less than 80 percent presents a *prima facie* case of discrimination.<sup>187</sup> All disparity ratios for Non-White firms and White Women firms are below this threshold.<sup>188</sup>

**Table 5-27: Demographic Distribution of Sales and Payroll Data – Aggregated Groups**  
**All Industries, 2012**

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts - All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
<b>Panel A: Distribution of Non-White Firms</b>						
Black	12.49%	0.44%	1.72%	0.32%	0.76%	0.50%
Latino	8.13%	0.93%	4.97%	0.83%	1.84%	1.02%
Native American	0.37%	0.04%	0.18%	0.04%	0.07%	0.05%
Asian	6.35%	1.61%	7.84%	1.51%	2.64%	1.76%
<b>Panel B: Distribution of All Firms</b>						
Non-White	27.46%	3.09%	14.92%	2.76%	5.41%	3.43%
White Women	22.52%	2.98%	15.03%	2.69%	5.34%	3.92%
White Men	41.40%	23.64%	53.87%	22.91%	32.84%	29.43%
Equally Non-White & White	0.57%	0.14%	0.69%	0.12%	0.39%	0.26%

187. 29 C.F.R. § 1607.4(D) (“A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”).

188. Because the data in the subsequent tables are presented for descriptive purposes, significance tests on these results are not conducted.

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts - All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Equally Women & Men	6.13%	1.97%	9.04%	1.82%	3.71%	2.34%
Firms Not Classifiable	1.91%	68.18%	6.45%	69.69%	52.31%	60.62%
<b>All Firms</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

Source: CHA calculations from Survey of Business Owners

**Table 5-28: Disparity Ratios of Firm Utilization Measures**  
All Industries, 2012

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
<b>Panel A: Disparity Ratios for Non-White Firms</b>			
Black	3.50%	18.52%	65.88%
Latino	11.45%	16.68%	55.57%
Native American	11.00%	19.27%	82.34%
Asian	25.40%	19.25%	66.40%
<b>Panel B: Disparity Ratios for All Firms</b>			
Non-Whites	11.24%	18.47%	63.45%
White Women	13.24%	17.90%	73.38%
Not Non-White/Not White Women	187.79%	134.98%	103.81%
<b>All Firms</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

Source: CHA calculations from Survey of Business Owners

This same approach was used to examine the construction, professional, scientific and technical services, goods, and other services sectors. The following are summaries of the results of the disparity analyses.

## 2. Construction

Of the 18 disparity ratios for non-White firms and White women firms presented in Table 5-29, 10 fall under the 80% threshold.

**Table 5-29: Disparity Ratios – Aggregated Groups  
Construction, 2012**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
<b>Panel A: Disparity Ratios for Non-White Firms</b>			
Black	19.47%	92.76%	88.40%
Latino	25.36%	49.09%	80.64%
Native American	29.82%	19.39%	61.32%
Asian	57.81%	88.19%	89.93%
<b>Panel B: Disparity Ratios for All Firms</b>			
Non-White	26.35%	55.19%	83.38%
White Women	115.63%	72.80%	99.04%
Not Non-White/Not White Women	115.26%	107.54%	100.95%
<b>All Firms</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

Source: CHA calculations from Survey of Business Owners

## 3. Construction-Related Services

Table 5-30 presents disparity ratios in this sector. Seventeen of the available disparity ratios for non-White firms and White women firms presented are under the 80% threshold.

**Table 5-30: Disparity Ratios – Aggregated Groups  
Professional, Scientific, and Technical Services, 2012**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
<b>Panel A: Disparity Ratios for Non-White Firms</b>			
Black	16.55%	46.64%	77.19%
Latino	30.14%	55.18%	63.67%
Native American	21.47%	23.35%	42.85%

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Asian	56.03%	56.40%	87.45%
<b>Panel B: Disparity Ratios for All Firms</b>			
Non-White	37.92%	55.78%	79.68%
White Women	22.08%	25.90%	64.63%
Not Non-White/Not White Women	157.54%	126.13%	104.57%
<b>All Firms</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

Source: CHA calculations from Survey of Business Owners

#### 4. Goods

The SBO was unable to provide reliable estimates for the firms that are Black and Native American firms in this sector; consequently, no analysis is provided for these demographic groups. All of the disparity ratios for the remaining categories (presented in Table 5-31) fall below the 80% threshold.

**Table 5-31: Disparity Ratios – Aggregated Groups  
Goods, 2012**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
<b>Panel A: Disparity Ratios for Non-White Firms</b>			
Black	S	S	S
Latino	9.57%	19.09%	68.35%
Native American	S	S	S
Asian	19.54%	14.13%	68.32%
<b>Panel B: Disparity Ratios for All Firms</b>			
Non-White	11.38%	15.38%	97.49%
White Women	9.03%	17.58%	82.86%
Not Non-White/Not White Women	177.21%	131.35%	100.90%
<b>All Firms</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

Source: CHA calculations from Survey of Business Owners

## 5. Services

The SBO was unable to provide reliable estimates for Native American firms in any metrics this sector; in addition, estimates could not be made for Asian-owned firms in 2 of the metrics. Of the available 16 disparity ratios for non-White firms and White women firms presented in Table 5-32, all fall below the 80% threshold.

**Table 5-32: Disparity Ratios – Aggregated Groups  
Services, 2012**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
<b>Panel A: Disparity Ratios for Non-White Firms</b>			
Black	4.99%	19.97%	63.10%
Latino	14.96%	16.43%	52.72%
Native American	S	S	S
Asian	28.42%	S	S
<b>Panel B: Disparity Ratios for All Firms</b>			
Non-White	12.82%	18.43%	59.77%
White Women	15.74%	18.86%	71.68%
Not Non-White/Not White Women	212.78%	142.23%	105.09%
<b>All Firms</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

*Source: CHA calculations from Survey of Business Owners*

## D. Evidence of Disparities in Access to Business Capital

Capital is the lifeblood of any business. Participants in the anecdotal data collection universally agreed to this fundamental fact. The interviews with business owners conducted as part of this Study confirmed that small firms, especially minority- and women-owned firms, had difficulties obtaining needed working capital to perform on CTA's contracts and subcontracts, as well as expand the capacities of their firms. As discussed above, discrimination may even prevent firms from forming in the first place.

There is an extensive body of scholarly work on the relationship between personal wealth and successful entrepreneurship. There is a general consensus that dispar-

ities in personal wealth translate into disparities in business creation and ownership.<sup>189</sup>

The Federal Reserve Board and the U.S. Small Business Administration have conducted surveys of discrimination in the small business credit market for 1993, 1998 and 2003. These Surveys of Small Business Finances (“SSBF”) are based on a large representative sample of firms with fewer than 500 employees. The main finding from these Surveys is that MBEs experience higher loan denial probabilities and pay higher interest rates than white-owned businesses, even after controlling for differences in credit worthiness and other factors. Blacks, Hispanics and Asians were more likely to be denied credit than Whites, even after controlling for firm characteristics like credit history, credit score and wealth. Blacks and Hispanics were also more likely to pay higher interest rates on the loans they did receive.<sup>190</sup>

A recent report to the U.S. Department of Commerce summarizes these Surveys, that encompass results from the Kauffman Firm Survey,<sup>191</sup> data from the U.S. Small Business Administration’s Certified Development Company/504 Guaranteed Loan Program<sup>192</sup> and additional extensive research on the effects of discrimination on opportunities for MBEs. The most comprehensive report of its kind, “Disparities in Capital Access Between Minority and Non-Minority-Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs,” found that

Low levels of wealth and liquidity constraints create a substantial barrier to entry for minority entrepreneurs because the owner’s wealth can be invested directly in the business, used as collateral to obtain business loans or use to acquire other businesses.... [T]he largest single actor explaining racial disparities in business creation rates are differences in asset levels.”<sup>193</sup>

Some of the key findings of the Report include:

- Minority-owned firms are less likely to receive loans than non-minority owned firms regardless of firm size. According to an analysis of data from the Survey of Small Business Finances, for firms with gross receipts over

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189. See, e.g., Evans, David S. and Jovanovic, Boyan, “An Estimated Model of Entrepreneurial Choice under Liquidity Constraints,” *Journal of Political Economy*, (1989); Evans, David S. and Leighton, Linda “Some empirical aspects of entrepreneurship,” *American Economic Review*, (1989).

190. See Blanchflower, D. G., Levine. P. and Zimmerman, D., “Discrimination In The Small Business Credit Market,” *Review of Economics and Statistics*, (2003); Cavalluzzo, K. S. and Cavalluzzo, L. C. “Market structure and discrimination, the case of small businesses,” *Journal of Money, Credit, and Banking*, (1998).

191. [http://www.kauffman.org/~media/kauffman\\_org/research%20reports%20and%20covers/2013/06/kauffmanfirmsurvey2013.pdf](http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2013/06/kauffmanfirmsurvey2013.pdf).

192. <http://www.sba.gov/category/navigation-structure/loans-grants/small-business-loans/sba-loan-programs/real-estate-and-eq>.

193. Fairlie, R. W. and Robb, A., “Disparities in Capital Access Between Minority and Non-Minority-Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs,” U.S. Department of Commerce, Minority Business Development Agency, 2010, pp. 22-23.

\$500,000, 52 percent of non-minority-owned firms received loans compared to 41 percent of minority-owned firms.

- When minority-owned firms do receive financing, it is for less money and at a higher interest rate than non-minority-owned firms regardless of the size of the firm. Minority-owned firms paid an average of 7.8 percent in interest rates for loans compared to 6.4 percent for non-minority-owned firms. Among firms with gross receipts under \$500,000, minority-owned firms paid an average of 9.1 percent in interest rates compared to 6.9 percent for non-minority-owned firms.
- Minority owned firms are more likely to be denied loans. Among firms with gross receipts under \$500,000, loan denial rates for minority firms were about three times higher, at 42 percent, compared to those of non-minority-owned firm, at 16 percent. For high sales firms, the rates of loan denial were almost twice as high for MBEs as for non-MBEs.
- MBEs pay higher interest rates for business loans. For all firms, MBEs paid 7.8 percent on average for loans compared with 6.4 percent for non-MBEs. The difference was smaller, but still high, between MBES and non-MBEs with high sales.
- Minority-owned firms receive smaller equity investments than non-minority owned firms even when controlling for detailed business and owner characteristics. The differences are large and statistically significant. The average amount of new equity investments in minority-owned firms receiving equity is 43 percent of the average of new equity investments in non-minority-owned firms. The differences were even larger for loans received by high sales firms. Yet, venture capital funds focusing on investing in minority firms provide returns that are comparable to mainstream venture capital firms.<sup>194</sup>
- Disparities in total investments in minority-owned firms compared to those in non-minority owned firms grew after the first year of business operations. According to the analysis of the data from the Kauffman Firm Survey, minority-owned firms' investments into their firms were about 18 percent lower in the first year of operations compared to those of non-minority-owned firms. This disparity grew in the subsequent three years of operations, where minorities' investments into their firms were about 36 percent lower compared to those of non-minority-owned firms.

Minority entrepreneurs face challenges (including lower family wealth and difficulty penetrating financial markets and networks) directly related to race that limit their ability to secure financing for their businesses.<sup>195</sup>

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194. See Bates, T., "Venture Capital Investment in Minority Business," *Journal of Money Credit and Banking* 40, 2-3 (2008).

These findings are consistent with those of the 2012 study. The Survey of Small Business Finances (“SSBF”), conducted by the Federal Reserve Board and the U.S. Small Business Administration from 1999-2003, found that MBEs experience significant barriers compared to similar non-MWBEs. When minority-owned firms did apply for a loan, their loan requests were substantially more likely to be denied than non-minorities, even after accounting for differences like firm size and credit history. Loan denial rate ranged from 8 to 24 percentage points higher than for nonminority, male-owned small businesses. When minority-owned firms did receive a loan, they were obligated to pay higher interest rates on the loans than comparable nonminority-owned firms. These results strongly suggest that MBEs do not enjoy full and fair access to the credit necessary to perform on CTA prime contracts and associated subcontractors.

## E. Evidence of Disparities in Access to Human Capital

There is a strong intergenerational correlation with business ownership. The probability of self-employment is significantly higher among the children of the self-employed. This was evident in the large number of non-M/WBEs in our interview groups who were second or even multigenerational generation firms doing business for the market area. This disadvantages minorities, whose earlier generations were denied business ownership through either *de jure* segregation or *de facto* exclusion.

There is evidence that current racial patterns of self-employment are in part determined by racial patterns of self-employment in the previous generation.<sup>196</sup> Black men have been found to face a “triple disadvantage”: they are less likely than White men to: 1. Have self-employed fathers; 2. Become self-employed if their fathers were not self-employed; and 3. To follow their fathers into self-employment.<sup>197</sup>

Intergenerational links are also critical to the success of the businesses that do form.<sup>198</sup> Working in a family business leads to more successful firms by new owners. One study found that only 12.6 percent of Black business owners had prior work experiences in a family business as compared to 23.3 percent of White business owners.<sup>199</sup> This creates a cycle of low rates of minority ownership and worse

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195. Fairlie, R.W. and Robb, A., *Race and Entrepreneurial Success: Black-, Asian- and White-Owned Businesses in the United States*, (Cambridge: MIT Press, 2008).

196. Fairlie, R.W., “The Absence of the African American Owned Business, An Analysis of the Dynamics of Self-Employment,” *Journal of Labor Economics*, (1999).

197. Hout, M. and Rosen, H. S., “Self-employment, Family Background, and Race,” *Journal of Human Resources* 35, no.4 (2000).

198. Fairlie, R.W. and Robb, A., “Why are black-owned businesses less successful than White-owned businesses? The role of families, inheritances, and business human capital,” *Journal of Labor Economics*, (2007).

199. *Id.*

outcomes being passed from one generation to the next, with the corresponding perpetuation of advantages to White-owned firms.

Similarly, unequal access to business networks reinforces exclusionary patterns. The composition and size of business networks are associated with self-employment rates.<sup>200</sup> The U. S. Department of Commerce has reported that the ability to form strategic alliances with other firms is important for success.<sup>201</sup> MBEs in our interviews reported that they felt excluded from the networks that help to create success in the highway construction industry.

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200. Allen, W. D., "Social Networks and Self-Employment," *Journal of Socio-Economics* 29, no.5 (2000).

201. Increasing MBE Competitiveness through strategic Alliances (Minority Business Development Agency, 2008).

# VI. RECOMMENDATIONS FOR THE CHICAGO TRANSIT AUTHORITY'S DISADVANTAGED BUSINESS ENTERPRISE PROGRAMS

The quantitative and qualitative data in this study for the Chicago Transit Authority (“CTA”) provide a thorough examination of the evidence regarding the experiences of minority- and women-owned firms in its geographic and industry markets. As required by strict scrutiny and the DBE program regulations<sup>202</sup>, we analyzed evidence of such firms’ utilization by CTA as measured by dollars spent, as well as DBEs’ experiences in obtaining contracts in the public and private sectors. We gathered statistical and anecdotal data to provide the agency with the evidence necessary to narrowly tailor its DBE program for federal-aid contracts, as required by 49 C.F.R. Part 26 and to narrowly tailor its DBE program for state-funded contracts, as required by state statute. Based upon the results, we make the following recommendations.

## A. Augment Race- and Gender-Neutral Initiatives

The courts and the DBE Program regulations require that grantees use race-neutral<sup>203</sup> approaches to the maximum feasible extent to meet the annual DBE goal. This is a critical element of narrowly tailoring the program, so that the burden on non-DBEs is no more than necessary to achieve CTA’s remedial purposes. Increased participation by DBEs through race-neutral measures will also reduce the need to set DBE contract goals. We therefore suggest the following enhancements of CTA’s current efforts, based on business owner interviews, input of agency staff, and national best practices for DBE programs.

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202. 49 C.F.R. Part 26.

203. The term race-neutral as used here includes gender-neutral. See 49 C.F. R. § 26.5 (Race-neutral measure or program is one that is, or can be, used to assist all small businesses. For the purposes of this part, race-neutral includes gender-neutrality).

## **1. Ensure Prompt Payment of Prime Vendors and Subcontractors**

Complaints about very slow payments came from all types of firms. This seemed to be a universal concern, mostly unrelated to race or gender status, although the hardship is especially acute for DBEs and small firms. Prime contractors reported that slow payment by the agency means they sometimes have to finance their subcontractors to ensure the prime meets its DBE goals. A solution that was enthusiastically embraced was increasing the payment schedule to perhaps twice monthly or a frontloaded payment schedule, and we second this idea. Another recommendation is that CTA should pay the prime contractor for the work the subcontractor has satisfactorily performed, even if all the other subs and/or the prime contractor cannot yet invoice for their work or CTA has not yet approved payment for all line items. This removes the risk from the subcontractors of issues unrelated to their performance and eliminates delays that could result in extreme financial distress for small firms.

## **2. Review Contract Specifications**

Several DBE engineering and consulting firms reported that it is nearly impossible to be awarded a prime contract with CTA. In fact, none was awarded to a Black- or Hispanic-owned firm. Experience requirements are so onerous— and geared towards former CTA personnel— that small firms can rarely compete. Perhaps more contracts could be placed in the SBE program, so that like sized firms may compete against each other. Experience requirements might be lowered because the projects will be smaller and less complex. Another recommendation is for CTA to have an outside review conducted of its specifications by experienced transit engineers who do not do business with the agency, so as to ensure objectivity. The results of this review would then be used to evaluate how to increase competition for CTA work.

## **3. Increase the Limit for Informal Procurements**

The CTA's current limit for informal procurements and payments not subject to Board approval is \$40,000. Both vendors and CTA staff agreed this ceiling is extremely low and unnecessarily depresses opportunities for DBEs and small firms while adding to the administrative burdens for CTA staff who must implement the greatly increased paperwork and processing requirements for larger contracts. We strongly suggest the agency raise this limit to at least \$100,000, or even greater (*e.g.*, \$150,000).

#### **4. Increase Contract “Unbundling”**

Urban transit projects are often very large and complex. Not surprisingly, this was reported to be a disincentive to small firms to seek CTA contracts. Unbundling projects, providing longer lead times and simplifying requirements would assist these businesses to take on some CTA work, especially as prime vendors. For example, the CTA’s very large maintenance contracts for services like landscaping could be broken into smaller areas so that smaller firms can perform the work. While more work for CTA staff, the benefits of increased DBE participation as well as greater competition for CTA work outweigh the administrative burdens. In conjunction with reduced insurance and bonding requirements where possible, unbundled contracts should permit smaller firms to move from quoting solely as subcontractors to bidding as prime contractors, as well as enhance their subcontracting opportunities. CTA should consider adding unbundling as a component in the small business elements of its DBE Program Plan, as this approach is an approved element under 49 C.F.R. § 26.39.

Further, some DBEs reported that although they were listed on on-call contracts, they received little or no work. This is to some extent the nature of on-call contracts, where the actual scopes of work are not yet specified, so a listed firm might not receive work because CTA did not in fact require those services. However, being listed caused some certified firms to set aside staff and other resources in case they were called. One approach to lessen this outcome would be for the on-call contracts to be unbundled more, so that DBEs might receive them as prime vendors.

Unbundling must be conducted, however, within the constraints of the need to ensure efficiency and limit costs to taxpayers.

#### **5. Provide Technical Assistance and Supportive Services**

Many DBEs found it challenging to navigate CTA’s bureaucratic process. Several representatives of large prime contractors agreed that additional training on issues like certified payrolls, invoicing, scheduling, and so on, would benefit small firms. Specific information about how to do business with CTA was also recommended. We suggest CTA develop such training materials and presentations, perhaps by gathering additional data on exactly what services are needed by surveying DBEs working on its projects.

In addition to training for DBEs and small firms, some general contractors and CTA staff members recommended training for bidders on DBE program compliance. This was particularly suggested for firms outside the construction industry, who may be less familiar overall with contracting diversity requirements. Elements should include the purpose of the program; bidding require-

ments; processes and forms for documenting compliance; performing a commercially useful function; counting DBE participation; and contract performance standards.

## **6. Develop a Bonding and Financing Program for DBEs**

Access to bonding and working capital are the two of largest barriers to the development and success of DBEs and small firms because traditional underwriting standards have often excluded them. One approach that has proven to be effective for some agencies is to develop a CTA-sponsored bonding and financing assistance program for DBEs. This assistance goes beyond the provision of information about outside bonding resources by providing actual assistance to firms through a program consultant; it is not, however, a bonding guarantee program that places the agency's credit at risk or provides direct subsidies to participants. Rather, this concept brings the commitment of a surety company to provide a bond for firms that have successfully completed the program. One possible approach would be to offer this type of support for certified firms that participate in the SBE program, thereby helping to facilitate prime contract opportunities. Other agencies, including large transit agencies, have reported significant increases in DBEs' bonding capacities and ability to take on larger projects using this type of program. Such a program could be implemented in conjunction with other local agencies to reduce costs and increase participation.

## **7. Enhance the Small Business Enterprise Program**

CTA has adopted a Small Business Enterprise ("SBE") program as an element to its DBE Program Plan to comply with the mandate of 49 C.F.R. § 26.39, which requires small business elements in the DBE program. This approach could be enhanced by the following changes:

- Adopt detailed guidelines for which contracts should be considered for this program. Contracts with smaller dollar values (*e.g.*, under \$250,000) or fewer scopes (*e.g.*, those for maintenance or landscaping) or few subcontracting opportunities (*e.g.*, those for professional services) are good candidates.
- Consider setting an overall, annual internal target for dollars spent with SBEs. While not binding in any way, it is useful to have an objective for managers to strive to meet. One measure might be past participation of SBEs coupled with forecasting about upcoming opportunities. This will also assist with unbundling, since an analysis of what could be segmented into smaller contracts is necessary to meet that element.

- Conduct outreach to non-DBEs that might be eligible. It is critical that the SBE program not operate as a “stealth” race-conscious setaside. The current lack of a mechanism to certify SBEs puts this element in regulatory and constitutional jeopardy. Given that the Illinois Unified Certification Program does not currently have an SBE application process, CTA must undertake this effort.
- Consider making participation in any bonding and financing program available to firms receiving contracts through the Small Business Enterprise program. Given that there will be a great need for this support, and that CTA’s resources are limited, this is one mechanism to facilitate actual work for CTA through the SBE program.

## 8. Enhance the Mentor-Protégé Program

CTA has recently adopted a Mentor-Protégé component for its large projects. This very new initiative has yet to be evaluated, as the proposals for large projects in which this is a scoring element have not been finalized.

Given the high level of interest from DBEs and large firms in a mentor-protégé approach, CTA should consider expanding this effort to provide a program not directly tied to a response to a Request for Proposals for a specific project. A Mentor-Protégé Program for FTA assisted contracts must conform to 49 C.F.R. § 26.35 and the Guidelines of Appendix D to Part 26. This approach is welcomed by DBEs and several large prime contractors as a way to increase DBEs’ capacities by assisting DBEs to move into non-traditional areas of work and/or compete in the marketplace outside the DBE program, through the provision of training and assistance from other firms. Interview participants cited skill sets such as estimating, understanding of and adherence to specifications, billing and scheduling as areas that need of focus. Elements should include:

- Formal program guidelines.
- A CTA-approved written development plan, which clearly sets forth the objectives of the parties and their respective roles, the duration of the arrangement, a schedule for meetings and development of plans, and the services and resources to be provided by the mentor to the protégé. The development targets should be quantifiable and verifiable and reflect objectives to increase the protégé’s capacities and expand its business areas and expertise. Targets for improvement must be specified, such as increased bonding capacity, increased sales, increased areas of work specialty, etc.
- A long term and specific commitment between the parties, *e.g.*, 12 to 36 months.

- Extra credit for the mentor’s use of the protégé to meet a contract goal (e.g., 1.25 percent for each dollar spent).
- A fee schedule to cover the direct and indirect cost for services provided by the mentor for specific training and assistance to the protégé.
- Regular review by the CTA of compliance with the plan and progress towards meeting its objectives. Failure to adhere to the terms of the plan would be grounds for termination from the Program.

## **9. Increase Contract Data Collection and Program Compliance**

CTA uses the B2GNow data collection and monitoring system. This is an integral part of program compliance. The system is used for certification, outreach, and documenting goal attainment, and we are recommending CTA use the contract goal setting module designed to integrate data from this study. In conjunction with Oracle, we used data from this system to develop information on the race/ethnicity or gender of the firm’s ownership and the NAICS code it was performing on the contract<sup>204</sup> for the Study’s contract data files. While the data files are mostly complete and provided good work descriptions, about one third lacked race/ethnicity or gender status, and many lacked subcontractor data. We recommend CTA input all data that will be needed for future analysis and disparity studies.

The system could also be used to comply with the requirement that CTA review all DBE subcontracts. USDOT recently issued Guidance concerning recipients’ responsibilities to monitor the program, such as reviewing all DBE subcontracting agreements.<sup>205</sup>

## **B. Continue to Implement Narrowly Tailored DBE Goals**

### **1. Use the Study to Set the Overall Annual DBE Goals**

49 C.F.R. Part 26 requires that CTA engage in a two-step process to set a triennial goal for DBE participation in its federally-funded projects. The governing state statute for non-federally-assisted contracts likewise requires an annual, overall DBE goal. To determine the Step 1 base figure for the relative availability of DBEs required by § 26.45(c), we suggest CTA use the DBE weighted avail-

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204. We note that many firms have multiple NAICS codes. In our view, it is important to assign codes based on the actual scope of work, so that our results are as narrowly tailored and as accurate as possible.

205. See <https://www.transportation.gov/civil-rights/disadvantaged-business-enterprise/official-questions-and-answers-qas-disadvantaged>.

ability findings. Our methodology is permitted under §26.45(c)(5) and is the only approach that has received repeated judicial approval.

To perform the Step 2 analysis required by § 26.45(d) to adjust the step 1 figure to reflect the level of DBE availability that would be expected in the absence of discrimination, CTA can use the statistical disparities in Chapter V in the rates at which DBEs form businesses. This is the type of “demonstrable evidence that is logically and directly related to the effect for which the adjustment is sought.”<sup>206</sup> However, we note that the case law in the Seventh Circuit Court of Appeals requires the goal for a race-based program to be the “plausible lower bound estimate,” so any adjustment to the step 1 base figure must be very carefully considered.

## 2. Use the Study to Set DBE Contract Goals

As discussed in Chapter II of the Study, CTA’s constitutional responsibility is to ensure that its implementation of 49 C.F.R. Part 26 and of its program for state-funded contracts is narrowly tailored to its geographic and procurement marketplace. The highly detailed unweighted availability estimates in Chapter IV can serve as the starting point for narrowly tailored contract goal setting that reflects the percentage of available DBEs as a percentage of the total pool of available firms. CTA should weigh the estimated scopes of the contract by the availability of DBEs in those scopes, and then adjust the result based on geography and current market conditions (for example, the volume of work currently underway in the market, the entrance of newly certified firms, specialized nature of the project, etc.). This approach should be used for all contract goals, including those set for individual task order contracts, to ensure the process meets the narrow tailoring requirement. This narrowly tailored method may require additional input from user departments to assist Diversity with determining the correct industry codes and the weight of the scopes of work.

USDOT has recently issued a Handbook on compliance with the DBE program for alternative contracting and procurement methods such as design-build and public-private partnership projects.<sup>207</sup> In addition to following these guidelines, CTA should consider seeking FTA approval to count firms that are DBE certified in neighboring states but not with the Illinois UCP for credit on very large projects to expand the pool of available DBEs. This approach was used successfully on billion-dollar bridge projects in the New York metropolitan area.

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206. 49 CFR § 26.45(d)(3); *see also* §23.51.

207. [https://www.fhwa.dot.gov/civilrights/programs/dbe\\_acm\\_handbook\\_20180820.pdf](https://www.fhwa.dot.gov/civilrights/programs/dbe_acm_handbook_20180820.pdf).

The B2GNow electronic data collection and monitoring system already employed by CTA contains a contract goal setting module developed to utilize the study's unweighted availability data as the starting point. Written procedures detailing the implementation of contract goal setting should be developed and disseminated so that all contracting actors understand the methodology. This will help to address the perceived lack of transparency reported by some interviewees.

Another enhancement would be to provide with the invitation for bid or request for proposal the scopes of work used by CTA to set the contract goal. This would provide guidance to prime firms on specialties on which to concentrate for making good faith efforts, as well as increase transparency about how the DBE program functions. It will be necessary to stress that firms may meet the goal using firms outside these industries and that only soliciting firms in these industries does not *per se* constitute making good faith efforts to meet the goal.

We urge CTA to bid some contracts that it determines have significant opportunities for DBE participation without goals. These "control contracts" can illuminate whether certified firms are used or even solicited in the absence of goals, as suggested by the study data. The development of some unremediated markets data will be probative of whether contract goals remain needed to level the playing field for minorities and women, and was important to our successful defense of the Illinois Department of Transportation's DBE program.<sup>208</sup>

### **3. Consider expanding acceptable certifications for non-FTA-funded contracts**

In view of the barriers identified by interview participants to obtaining CTA prime contracts, as well as challenges faced by prime bidders in meeting goals on specialized projects, CTA should consider accepting City of Chicago and Cook County Minority-Owned Business Enterprise ("MBE") and Woman-Owned business Enterprise ("WBE") certifications for non-FTA-funded contracts. This will expand the pool of available firms, because some firms are not certified as both a DBE and a M/WBE, and the local agencies' certification criteria for business size and personal net worth are higher than the current DBE levels. This will more accurately reflect the size of firms and the costs of doing business and living in the Chicago area, rather than the national DBE limits which cover areas with much lower costs.

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208. *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715, 720 (7th Cir. 2007), cert. denied 15-1827, June 26, 2017 ("*Northern Contracting III*").

## **C. Develop Performance Measures for Program Success**

CTA should develop quantitative performance measures for certified firms and overall success of the program to evaluate its effectiveness in reducing the systemic barriers identified by the study. In addition to meeting the overall, annual goal, possible benchmarks might be:

- The number of bids or proposals and the dollar amount of the awards and the goal shortfall where the bidder submitted good faith efforts to meet the contract goal;
- The number and dollar amount of bids or proposals rejected as non-responsive for failure to make good faith efforts to meet the goal;
- The number, type and dollar amount of DBE substitutions during contract performance;
- Increased bidding by certified firms;
- Increased prime contract awards to certified firms, with special emphasis on professional services contracts; and
- Increased “capacity” of certified firms as measured by bonding limits, size of jobs, profitability, etc.



# APPENDIX A:

## FURTHER EXPLANATION OF THE MULTIPLE REGRESSION ANALYSIS

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

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

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

The estimation process takes this equation and transforms it into:

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

where C is the constant term;  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  are coefficients, and  $\mu$  is the random error term.

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

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

A coefficient was estimated for each independent variable. The broad idea is that a person's wage or earnings is dependent upon the person's race, gender, age, industry, occupation, and education. Since this Report examined the Chicago Transit Authority, the analysis was limited to data from the Chicago metropolitan area. The coefficient for the new variable showed the impact of being a member of that race or gender in the Chicago metropolitan area.



# APPENDIX B:

## FURTHER EXPLANATION OF THE PROBIT REGRESSION ANALYSIS

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

The basic model looks the same:

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

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

The estimation process takes this equation and transforms it into:

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

where C is the constant term;  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$  are coefficients, and  $\mu$  is the random error term.

In the standard regression model, the dependent variable is continuous and can take on many values. In the probit model, the dependent variable is dichotomous and can take on only two values: zero or one. For instance, in the standard regression analysis, we may be exploring the impact of a change in some independent variable on wages. In this case, the value of one's wage might be any non-negative number. In contrast, in the probit regression analysis, the exploration might be the impact of a change in some independent variable on the probability that some event occurs. For instance, the question might be how an individual's gender impacts the probability of that person forming a business. In this case, the dependent variable has two values: zero, if a business is not formed; one, if a business is formed.

The second significant difference – the interpretation of the independent variables' coefficients – is fairly straight-forward in the standard regression model: the unit change in the independent variable impacts the dependent variable

by the amount of the coefficient.<sup>209</sup> However, in the probit model, the initial coefficients cannot be interpreted this way. One additional step - which can be computed easily by most statistical packages - must be undertaken in order to yield a result that indicates how the change in the independent variable affects the probability of an event (*e.g.*, business formation) occurs. For instance, using our previous example of the impact on gender on business formation, if the independent variable was WOMAN (with a value of 0 if the individual was male and 1 if the individual was female) and the final transformation of the coefficient of WOMAN was -0.12, we would interpret this to mean that women have a 12% lower probability of forming a business compared to men.

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209. The exact interpretation depends upon the functional form of the model.

# APPENDIX C:

## SIGNIFICANCE LEVELS

Many tables in this Report contain asterisks indicating a number has statistical significance at 0.001 or 0.01 levels and the body of the report repeats these descriptions. While the use of the term seems important, it is not self-evident what the term means. This Appendix provides a general explanation of significance levels.

This Report seeks to address the question whether non-Whites and White women received disparate treatment in the economy relative to White males. From a statistical viewpoint, this primary question has two sub-questions:

- What is the relationship between the independent variable and the dependent variable?
- What is the probability that the relationship between the independent variable and the dependent variable is equal to zero?

For example, an important question facing the Chicago Transit Authority as it explores whether each racial and ethnic group and White women continues to experience discrimination in its markets is do non-Whites and White women receive lower wages than White men? As discussed in Appendix A, one way to uncover the relationship between the dependent variable (*e.g.*, wages) and the independent variable (*e.g.* non-Whites) is through multiple regression analysis. An example helps to explain this concept.

Let us say this analysis determines that non-Whites receive wages that are 35% less than White men after controlling for other factors, such as education and industry, which might account for the differences in wages. However, this finding is only an estimate of the relationship between the independent variable (*e.g.*, non-Whites) and the dependent variable (*e.g.*, wages) – the first sub-question. It is still important to determine how accurate is that estimation, that is, what is the probability the estimated relationship is equal to zero – the second sub-question.

To resolve the second sub-question, statistical hypothesis tests are utilized. Hypothesis testing assumes that there is no relationship between belonging to a particular demographic group and the level of economic utilization relative to White men (*e.g.*, non-Whites earn identical wages compared to White men or non-Whites earn 0% less than White men). This sometimes called the null hypothesis. We then calculate a confidence interval to find explore the proba-

bility that the observed relationship (*e.g.*, - 35%) is between 0 and minus that confidence interval.<sup>210</sup> The confidence interval will vary depending upon the level of confidence (statistical significance) we wish to have in our conclusion. Hence, a statistical significance of 99% would have a broader confidence interval than statistical significance of 95%. Once a confidence interval is established, if -35% lies outside of that interval, we can assert the observed relationship (*e.g.*, 35%) is accurate at the appropriate level of statistical significance.

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210. Because 0 can only be greater than -35%, we only speak of “minus the confidence level”. This is a one-tailed hypothesis test. If, in another example, the observed relationship could be above or below the hypothesized value, then we would say “plus or minus the confidence level” and this would be a two-tailed test.

# APPENDIX D:

## ADDITIONAL DATA FROM THE FINAL CONTRACT DATA FILE

Tables 4.1 through 4.6 in Chapter IV, Utilization and Availability Analyses for the Chicago Transit Authority, presented data on the NAICS codes used to define the unconstrained product market for CTA’s FTA-funded and locally-funded contracts. The tables in this Appendix present data on all of the NAICS codes in the Final Contract Data File, including those NAICS codes whose share of agency spending was less than 1 percent and, therefore, not included in the unconstrained product market for analysis.

**Table D-1: Industry Percentage Distribution of Contracts by Dollars Paid for FTA-Funded Contracts, All Contracts**

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
236220	Commercial and Institutional Building Construction	\$113,256,088.00	10.8%	10.8%
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$98,865,664.00	9.4%	20.2%
336120	Heavy Duty Truck Manufacturing	\$79,885,216.00	7.6%	27.7%
237310	Highway, Street, and Bridge Construction	\$77,610,352.00	7.4%	35.1%
541330	Engineering Services	\$74,517,336.00	7.1%	42.2%
811111	General Automotive Repair	\$69,650,792.00	6.6%	48.8%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$65,691,652.00	6.2%	55.1%
541310	Architectural Services	\$64,125,748.00	6.1%	61.2%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	\$62,382,484.00	5.9%	67.1%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$45,618,272.00	4.3%	71.4%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238910	Site Preparation Contractors	\$32,011,882.00	3.0%	74.5%
238140	Masonry Contractors	\$28,598,852.00	2.7%	77.2%
238120	Structural Steel and Precast Concrete Contractors	\$23,333,964.00	2.2%	79.4%
237990	Other Heavy and Civil Engineering Construction	\$21,496,778.00	2.0%	81.4%
541512	Computer Systems Design Services	\$19,423,942.00	1.8%	83.3%
236210	Industrial Building Construction	\$17,875,708.00	1.7%	85.0%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	\$16,097,002.00	1.5%	86.5%
238350	Finish Carpentry Contractors	\$11,435,905.00	1.1%	87.6%
238110	Poured Concrete Foundation and Structure Contractors	\$11,149,464.00	1.1%	88.7%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	\$10,585,352.00	1.0%	89.7%
238160	Roofing Contractors	\$9,261,887.00	0.9%	90.5%
238320	Painting and Wall Covering Contractors	\$8,542,083.00	0.8%	91.4%
238990	All Other Specialty Trade Contractors	\$6,020,274.00	0.6%	91.9%
561990	All Other Support Services	\$4,596,226.00	0.4%	92.4%
541611	Administrative Management and General Management Consulting Services	\$4,512,020.50	0.4%	92.8%
238190	Other Foundation, Structure, and Building Exterior Contractors	\$4,434,554.50	0.4%	93.2%
484220	Specialized Freight (except Used Goods) Trucking, Local	\$4,295,097.00	0.4%	93.6%
562910	Remediation Services	\$3,391,271.50	0.3%	93.9%
541360	Geophysical Surveying and Mapping Services	\$3,307,922.25	0.3%	94.3%
238390	Other Building Finishing Contractors	\$3,236,083.25	0.3%	94.6%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
541511	Custom Computer Programming Services	\$3,105,718.00	0.3%	94.9%
441310	Automotive Parts and Accessories Stores	\$2,642,623.00	0.3%	95.1%
519110	News Syndicates	\$2,467,372.75	0.2%	95.3%
541370	Surveying and Mapping (except Geophysical) Services	\$2,417,930.00	0.2%	95.6%
541519	Other Computer Related Services	\$2,396,869.00	0.2%	95.8%
238290	Other Building Equipment Contractors	\$2,283,088.25	0.2%	96.0%
331110	Iron and Steel Mills and Ferroalloy Manufacturing	\$2,197,009.25	0.2%	96.2%
332323	Ornamental and Architectural Metal Work Manufacturing	\$2,194,625.75	0.2%	96.4%
213111	Drilling Oil and Gas Wells	\$2,180,085.00	0.2%	96.6%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$2,141,550.00	0.2%	96.9%
238310	Drywall and Insulation Contractors	\$2,060,490.00	0.2%	97.0%
238150	Glass and Glazing Contractors	\$2,016,866.25	0.2%	97.2%
511210	Software Publishers	\$1,873,416.50	0.2%	97.4%
238330	Flooring Contractors	\$1,503,269.25	0.1%	97.6%
541320	Landscape Architectural Services	\$1,502,064.00	0.1%	97.7%
238130	Framing Contractors	\$1,476,161.50	0.1%	97.8%
541380	Testing Laboratories	\$1,401,343.75	0.1%	98.0%
327390	Other Concrete Product Manufacturing	\$1,339,513.50	0.1%	98.1%
541420	Industrial Design Services	\$1,181,477.00	0.1%	98.2%
541820	Public Relations Agencies	\$1,173,513.00	0.1%	98.3%
561612	Security Guards and Patrol Services	\$1,136,708.12	0.1%	98.4%
321114	Wood Preservation	\$1,119,734.88	0.1%	98.5%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	\$986,695.38	0.1%	98.6%
484110	General Freight Trucking, Local	\$984,067.81	0.1%	98.7%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238340	Tile and Terrazzo Contractors	\$934,812.94	0.1%	98.8%
221320	Sewage Treatment Facilities	\$931,475.50	0.1%	98.9%
541990	All Other Professional, Scientific, and Technical Services	\$870,291.69	0.1%	99.0%
541620	Environmental Consulting Services	\$768,509.44	0.1%	99.1%
541350	Building Inspection Services	\$586,180.31	0.1%	99.1%
541690	Other Scientific and Technical Consulting Services	\$543,813.75	0.1%	99.2%
562119	Other Waste Collection	\$516,062.59	0.0490%	99.2%
334514	Totalizing Fluid Meter and Counting Device Manufacturing	\$506,727.12	0.0482%	99.3%
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	\$493,065.75	0.0469%	99.3%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$482,604.25	0.0459%	99.4%
326199	All Other Plastics Product Manufacturing	\$481,318.00	0.0457%	99.4%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	\$475,146.50	0.0452%	99.5%
332312	Fabricated Structural Metal Manufacturing	\$312,496.22	0.0297%	99.5%
332322	Sheet Metal Work Manufacturing	\$304,383.09	0.0289%	99.5%
531130	Lessors of Miniwarehouses and Self-Storage Units	\$303,466.84	0.0288%	99.5%
561439	Other Business Service Centers (including Copy Shops)	\$282,203.97	0.0268%	99.6%
561790	Other Services to Buildings and Dwellings	\$259,740.00	0.0247%	99.6%
337127	Institutional Furniture Manufacturing	\$246,359.05	0.0234%	99.6%
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	\$226,412.53	0.0215%	99.6%
541430	Graphic Design Services	\$220,089.77	0.0209%	99.7%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
561720	Janitorial Services	\$216,805.55	0.0206%	99.7%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	\$168,795.00	0.0160%	99.7%
333517	Machine Tool Manufacturing	\$164,855.00	0.0157%	99.7%
561710	Exterminating and Pest Control Services	\$162,894.75	0.0155%	99.7%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$149,267.02	0.0142%	99.7%
237110	Water and Sewer Line and Related Structures Construction	\$144,526.00	0.0137%	99.8%
325220	Artificial and Synthetic Fibers and Filaments Manufacturing	\$144,092.00	0.0137%	99.8%
333131	Mining Machinery and Equipment Manufacturing	\$131,393.12	0.0125%	99.8%
333249	Other Industrial Machinery Manufacturing	\$130,829.40	0.0124%	99.8%
423440	Other Commercial Equipment Merchant Wholesalers	\$130,000.00	0.0124%	99.8%
444190	Other Building Material Dealers	\$127,957.93	0.0122%	99.8%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	\$119,826.00	0.0114%	99.8%
531390	Other Activities Related to Real Estate	\$115,895.20	0.0110%	99.8%
333318	Other Commercial and Service Industry Machinery Manufacturing	\$112,374.55	0.0107%	99.8%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	\$105,180.89	0.0100%	99.9%
561210	Facilities Support Services	\$97,744.00	0.0093%	99.9%
423210	Furniture Merchant Wholesalers	\$96,827.00	0.0092%	99.9%
321113	Sawmills	\$96,600.00	0.0092%	99.9%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	\$95,520.00	0.0091%	99.9%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
561110	Office Administrative Services	\$91,500.00	0.0087%	99.9%
541614	Process, Physical Distribution, and Logistics Consulting Services	\$68,707.78	0.0065%	99.9%
561730	Landscaping Services	\$68,192.00	0.0065%	99.9%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	\$66,306.00	0.0063%	99.9%
335311	Power, Distribution, and Specialty Transformer Manufacturing	\$65,573.28	0.0062%	99.9%
331314	Secondary Smelting and Alloying of Aluminum	\$62,000.00	0.0059%	99.9%
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	\$59,106.40	0.0056%	99.9%
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	\$55,950.00	0.0053%	99.9%
523930	Investment Advice	\$53,595.91	0.0051%	99.9%
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	\$46,466.00	0.0044%	100.0%
488510	Freight Transportation Arrangement	\$38,450.00	0.0037%	100.0%
334290	Other Communications Equipment Manufacturing	\$38,156.80	0.0036%	100.0%
621999	All Other Miscellaneous Ambulatory Health Care Services	\$36,455.00	0.0035%	100.0%
423710	Hardware Merchant Wholesalers	\$32,653.00	0.0031%	100.0%
313220	Narrow Fabric Mills and Schiffli Machine Embroidery	\$31,500.00	0.0030%	100.0%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	\$30,996.66	0.0029%	100.0%
562998	All Other Miscellaneous Waste Management Services	\$30,231.61	0.0029%	100.0%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	\$25,000.00	0.0024%	100.0%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	\$24,564.00	0.0023%	100.0%
327215	Glass Product Manufacturing Made of Purchased Glass	\$23,100.00	0.0022%	100.0%
321911	Wood Window and Door Manufacturing	\$19,875.00	0.0019%	100.0%
332710	Machine Shops	\$19,523.00	0.0019%	100.0%
562211	Hazardous Waste Treatment and Disposal	\$17,116.59	0.0016%	100.0%
336390	Other Motor Vehicle Parts Manufacturing	\$16,008.56	0.0015%	100.0%
561320	Temporary Help Services	\$15,315.82	0.0015%	100.0%
334519	Other Measuring and Controlling Device Manufacturing	\$10,138.00	0.0010%	100.0%
237120	Oil and Gas Pipeline and Related Structures Construction	\$10,000.00	0.0010%	100.0%
326191	Plastics Plumbing Fixture Manufacturing	\$9,000.00	0.0009%	100.0%
333413	Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing	\$8,722.00	0.0008%	100.0%
325520	Adhesive Manufacturing	\$7,200.00	0.0007%	100.0%
423390	Other Construction Material Merchant Wholesalers	\$6,300.00	0.0006%	100.0%
236115	New Single-Family Housing Construction (except For-Sale Builders)	\$6,125.00	0.0006%	100.0%
323111	Commercial Printing (except Screen and Books)	\$5,415.26	0.0005%	100.0%
541921	Photography Studios, Portrait	\$4,250.00	0.0004%	100.0%
221310	Water Supply and Irrigation Systems	\$3,923.56	0.0004%	100.0%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
325211	Plastics Material and Resin Manufacturing	\$3,500.00	0.0003%	100.0%
331511	Iron Foundries	\$2,650.00	0.0003%	100.0%
316998	All Other Leather Good and Allied Product Manufacturing	\$2,482.00	0.0002%	100.0%
493110	General Warehousing and Storage	\$1,600.00	0.0002%	100.0%
<b>TOTAL</b>		<b>\$1,052,366,255.89</b>		<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data

**Table D-2: Industry Percentage Distribution of Contracts by Dollars Paid for FTA-Funded Contracts, Prime Contracts**

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$98,865,664.00	18.8%	18.8%
336120	Heavy Duty Truck Manufacturing	\$79,885,216.00	15.2%	34.0%
237310	Highway, Street, and Bridge Construction	\$71,214,416.00	13.6%	47.6%
236220	Commercial and Institutional Building Construction	\$60,720,072.00	11.6%	59.1%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	\$56,127,908.00	10.7%	69.8%
541330	Engineering Services	\$33,737,000.00	6.4%	76.2%
811111	General Automotive Repair	\$25,298,256.00	4.8%	81.0%
236210	Industrial Building Construction	\$17,773,552.00	3.4%	84.4%
541512	Computer Systems Design Services	\$15,757,016.00	3.0%	87.4%
541310	Architectural Services	\$14,657,410.00	2.8%	90.2%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$12,142,140.00	2.3%	92.5%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	\$10,585,352.00	2.0%	94.5%
238160	Roofing Contractors	\$6,405,730.00	1.2%	95.7%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	\$5,926,966.50	1.1%	96.9%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$2,129,050.00	0.4%	97.3%
541511	Custom Computer Programming Services	\$2,038,317.88	0.4%	97.7%
519110	News Syndicates	\$1,910,697.88	0.4%	98.0%
511210	Software Publishers	\$1,873,416.50	0.4%	98.4%
237990	Other Heavy and Civil Engineering Construction	\$1,605,159.50	0.3%	98.7%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$1,481,177.88	0.3%	99.0%
238150	Glass and Glazing Contractors	\$1,425,416.62	0.3%	99.2%
321114	Wood Preservation	\$1,054,665.00	0.2%	99.4%
541620	Environmental Consulting Services	\$507,942.41	0.1%	99.5%
334514	Totalizing Fluid Meter and Counting Device Manufacturing	\$506,727.12	0.1%	99.6%
541320	Landscape Architectural Services	\$385,195.62	0.1%	99.7%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$381,046.12	0.1%	99.8%
562910	Remediation Services	\$241,856.66	0.0%	99.8%
541430	Graphic Design Services	\$170,100.00	0.0%	99.9%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	\$168,795.00	0.0%	99.9%
333517	Machine Tool Manufacturing	\$164,855.00	0.0%	99.9%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
541611	Administrative Management and General Management Consulting Services	\$148,624.62	0.0%	100.0%
541519	Other Computer Related Services	\$69,150.98	0.0%	100.0%
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	\$55,950.00	0.0%	100.0%
441310	Automotive Parts and Accessories Stores	\$53,519.04	0.0%	100.0%
541370	Surveying and Mapping (except Geophysical) Services	\$31,366.67	0.0%	100.0%
238110	Poured Concrete Foundation and Structure Contractors	\$5,556.17	0.0%	100.0%
541360	Geophysical Surveying and Mapping Services	\$5,405.50	0.0%	100.0%
<b>TOTAL</b>		<b>\$525,510,690.67</b>		<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data

**Table D-3: Industry Percentage Distribution of Contracts by Dollars Paid for FTA-Funded Contracts, Subcontracts**

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238210	Electrical Contractors and Other Wiring Installation Contractors	\$53,549,512.00	10.2%	10.2%
236220	Commercial and Institutional Building Construction	\$52,536,012.00	10.0%	20.1%
541310	Architectural Services	\$49,468,340.00	9.4%	29.5%
811111	General Automotive Repair	\$44,352,540.00	8.4%	37.9%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$44,137,096.00	8.4%	46.3%
541330	Engineering Services	\$40,780,336.00	7.7%	54.1%
238910	Site Preparation Contractors	\$32,011,882.00	6.1%	60.1%
238140	Masonry Contractors	\$28,598,852.00	5.4%	65.6%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238120	Structural Steel and Precast Concrete Contractors	\$23,333,964.00	4.4%	70.0%
237990	Other Heavy and Civil Engineering Construction	\$19,891,618.00	3.8%	73.8%
238350	Finish Carpentry Contractors	\$11,435,905.00	2.2%	75.9%
238110	Poured Concrete Foundation and Structure Contractors	\$11,143,908.00	2.1%	78.1%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	\$10,170,036.00	1.9%	80.0%
238320	Painting and Wall Covering Contractors	\$8,542,083.00	1.6%	81.6%
237310	Highway, Street, and Bridge Construction	\$6,395,935.50	1.2%	82.8%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	\$6,254,577.00	1.2%	84.0%
238990	All Other Specialty Trade Contractors	\$6,020,274.00	1.1%	85.2%
561990	All Other Support Services	\$4,596,226.00	0.9%	86.0%
238190	Other Foundation, Structure, and Building Exterior Contractors	\$4,434,554.50	0.8%	86.9%
541611	Administrative Management and General Management Consulting Services	\$4,363,396.00	0.8%	87.7%
484220	Specialized Freight (except Used Goods) Trucking, Local	\$4,295,097.00	0.8%	88.5%
541512	Computer Systems Design Services	\$3,666,926.75	0.7%	89.2%
541360	Geophysical Surveying and Mapping Services	\$3,302,516.75	0.6%	89.8%
238390	Other Building Finishing Contractors	\$3,236,083.25	0.6%	90.4%
562910	Remediation Services	\$3,149,414.75	0.6%	91.0%
238160	Roofing Contractors	\$2,856,157.50	0.5%	91.6%
441310	Automotive Parts and Accessories Stores	\$2,589,104.00	0.5%	92.1%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
541370	Surveying and Mapping (except Geophysical) Services	\$2,386,563.50	0.5%	92.5%
541519	Other Computer Related Services	\$2,327,718.00	0.4%	93.0%
238290	Other Building Equipment Contractors	\$2,283,088.25	0.4%	93.4%
331110	Iron and Steel Mills and Ferroalloy Manufacturing	\$2,197,009.25	0.4%	93.8%
332323	Ornamental and Architectural Metal Work Manufacturing	\$2,194,625.75	0.4%	94.2%
213111	Drilling Oil and Gas Wells	\$2,180,085.00	0.4%	94.7%
238310	Drywall and Insulation Contractors	\$2,060,490.00	0.4%	95.0%
238330	Flooring Contractors	\$1,503,269.25	0.3%	95.3%
238130	Framing Contractors	\$1,476,161.50	0.3%	95.6%
541380	Testing Laboratories	\$1,401,343.75	0.3%	95.9%
327390	Other Concrete Product Manufacturing	\$1,339,513.50	0.3%	96.1%
541420	Industrial Design Services	\$1,181,477.00	0.2%	96.4%
541820	Public Relations Agencies	\$1,173,513.00	0.2%	96.6%
561612	Security Guards and Patrol Services	\$1,136,708.12	0.2%	96.8%
541320	Landscape Architectural Services	\$1,116,868.38	0.2%	97.0%
541511	Custom Computer Programming Services	\$1,067,400.12	0.2%	97.2%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	\$986,695.38	0.2%	97.4%
484110	General Freight Trucking, Local	\$984,067.81	0.2%	97.6%
238340	Tile and Terrazzo Contractors	\$934,812.94	0.2%	97.8%
221320	Sewage Treatment Facilities	\$931,475.50	0.2%	97.9%
541990	All Other Professional, Scientific, and Technical Services	\$870,291.69	0.2%	98.1%
238150	Glass and Glazing Contractors	\$591,449.56	0.1%	98.2%
541350	Building Inspection Services	\$586,180.31	0.1%	98.3%
519110	News Syndicates	\$556,675.00	0.1%	98.4%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
541690	Other Scientific and Technical Consulting Services	\$543,813.75	0.1%	98.5%
562119	Other Waste Collection	\$516,062.59	0.1%	98.6%
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	\$493,065.75	0.1%	98.7%
326199	All Other Plastics Product Manufacturing	\$481,318.00	0.1%	98.8%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	\$475,146.50	0.1%	98.9%
332312	Fabricated Structural Metal Manufacturing	\$312,496.22	0.1%	99.0%
332322	Sheet Metal Work Manufacturing	\$304,383.09	0.1%	99.0%
531130	Lessors of Miniwarehouses and Self-Storage Units	\$303,466.84	0.1%	99.1%
561439	Other Business Service Centers (including Copy Shops)	\$282,203.97	0.1%	99.1%
541620	Environmental Consulting Services	\$260,567.05	0.0%	99.2%
561790	Other Services to Buildings and Dwellings	\$259,740.00	0.0%	99.2%
337127	Institutional Furniture Manufacturing	\$246,359.05	0.0%	99.3%
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	\$226,412.53	0.0%	99.3%
561720	Janitorial Services	\$216,805.55	0.0%	99.4%
561710	Exterminating and Pest Control Services	\$162,894.75	0.0%	99.4%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$149,267.02	0.0%	99.4%
237110	Water and Sewer Line and Related Structures Construction	\$144,526.00	0.0%	99.5%
325220	Artificial and Synthetic Fibers and Filaments Manufacturing	\$144,092.00	0.0%	99.5%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
333131	Mining Machinery and Equipment Manufacturing	\$131,393.12	0.0%	99.5%
333249	Other Industrial Machinery Manufacturing	\$130,829.40	0.0%	99.5%
423440	Other Commercial Equipment Merchant Wholesalers	\$130,000.00	0.0%	99.6%
444190	Other Building Material Dealers	\$127,957.93	0.0%	99.6%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	\$119,826.00	0.0%	99.6%
531390	Other Activities Related to Real Estate	\$115,895.20	0.0%	99.6%
333318	Other Commercial and Service Industry Machinery Manufacturing	\$112,374.55	0.0%	99.6%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	\$105,180.89	0.0%	99.7%
236210	Industrial Building Construction	\$102,155.01	0.0%	99.7%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$101,558.11	0.0%	99.7%
561210	Facilities Support Services	\$97,744.00	0.0%	99.7%
423210	Furniture Merchant Wholesalers	\$96,827.00	0.0%	99.7%
321113	Sawmills	\$96,600.00	0.0%	99.8%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	\$95,520.00	0.0%	99.8%
561110	Office Administrative Services	\$91,500.00	0.0%	99.8%
541614	Process, Physical Distribution, and Logistics Consulting Services	\$68,707.78	0.0%	99.8%
561730	Landscaping Services	\$68,192.00	0.0%	99.8%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	\$66,306.00	0.0%	99.8%
335311	Power, Distribution, and Specialty Transformer Manufacturing	\$65,573.28	0.0%	99.8%
321114	Wood Preservation	\$65,069.89	0.0%	99.9%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
331314	Secondary Smelting and Alloying of Aluminum	\$62,000.00	0.0%	99.9%
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	\$59,106.40	0.0%	99.9%
523930	Investment Advice	\$53,595.91	0.0%	99.9%
541430	Graphic Design Services	\$49,989.77	0.0%	99.9%
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	\$46,466.00	0.0%	99.9%
488510	Freight Transportation Arrangement	\$38,450.00	0.0%	99.9%
334290	Other Communications Equipment Manufacturing	\$38,156.80	0.0%	99.9%
621999	All Other Miscellaneous Ambulatory Health Care Services	\$36,455.00	0.0%	99.9%
423710	Hardware Merchant Wholesalers	\$32,653.00	0.0%	99.9%
313220	Narrow Fabric Mills and Schiffli Machine Embroidery	\$31,500.00	0.0%	99.9%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	\$30,996.66	0.0%	99.9%
562998	All Other Miscellaneous Waste Management Services	\$30,231.61	0.0%	100.0%
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	\$25,000.00	0.0%	100.0%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	\$24,564.00	0.0%	100.0%
327215	Glass Product Manufacturing Made of Purchased Glass	\$23,100.00	0.0%	100.0%
321911	Wood Window and Door Manufacturing	\$19,875.00	0.0%	100.0%
332710	Machine Shops	\$19,523.00	0.0%	100.0%
562211	Hazardous Waste Treatment and Disposal	\$17,116.59	0.0%	100.0%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
336390	Other Motor Vehicle Parts Manufacturing	\$16,008.56	0.0%	100.0%
561320	Temporary Help Services	\$15,315.82	0.0%	100.0%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$12,500.00	0.0%	100.0%
334519	Other Measuring and Controlling Device Manufacturing	\$10,138.00	0.0%	100.0%
237120	Oil and Gas Pipeline and Related Structures Construction	\$10,000.00	0.0%	100.0%
326191	Plastics Plumbing Fixture Manufacturing	\$9,000.00	0.0%	100.0%
333413	Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing	\$8,722.00	0.0%	100.0%
325520	Adhesive Manufacturing	\$7,200.00	0.0%	100.0%
423390	Other Construction Material Merchant Wholesalers	\$6,300.00	0.0%	100.0%
236115	New Single-Family Housing Construction (except For-Sale Builders)	\$6,125.00	0.0%	100.0%
323111	Commercial Printing (except Screen and Books)	\$5,415.26	0.0%	100.0%
541921	Photography Studios, Portrait	\$4,250.00	0.0%	100.0%
221310	Water Supply and Irrigation Systems	\$3,923.56	0.0%	100.0%
325211	Plastics Material and Resin Manufacturing	\$3,500.00	0.0%	100.0%
331511	Iron Foundries	\$2,650.00	0.0%	100.0%
316998	All Other Leather Good and Allied Product Manufacturing	\$2,482.00	0.0%	100.0%
493110	General Warehousing and Storage	\$1,600.00	0.0%	100.0%
<b>TOTAL</b>		<b>\$526,855,570.32</b>		<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data

**Table D-4: Industry Percentage Distribution of Contracts by Dollars Paid for Locally-Funded Contracts, All Contracts**

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
441310	Automotive Parts and Accessories Stores	\$264,070,160.00	28.5%	28.5%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$169,872,688.00	18.3%	46.8%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$85,459,256.00	9.2%	56.0%
446110	Pharmacies and Drug Stores	\$77,677,488.00	8.4%	64.4%
237310	Highway, Street, and Bridge Construction	\$53,843,308.00	5.8%	70.2%
236220	Commercial and Institutional Building Construction	\$21,996,452.00	2.4%	72.5%
561320	Temporary Help Services	\$17,877,110.00	1.9%	74.5%
541511	Custom Computer Programming Services	\$17,045,144.00	1.8%	76.3%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	\$16,504,471.00	1.8%	78.1%
541613	Marketing Consulting Services	\$12,687,313.00	1.4%	79.5%
238160	Roofing Contractors	\$11,983,866.00	1.3%	80.7%
238290	Other Building Equipment Contractors	\$11,799,172.00	1.3%	82.0%
221210	Natural Gas Distribution	\$8,341,622.50	0.9%	82.9%
561612	Security Guards and Patrol Services	\$7,247,312.00	0.8%	83.7%
237990	Other Heavy and Civil Engineering Construction	\$7,105,067.50	0.8%	84.5%
238350	Finish Carpentry Contractors	\$6,482,724.00	0.7%	85.2%
238910	Site Preparation Contractors	\$6,435,740.00	0.7%	85.9%
238990	All Other Specialty Trade Contractors	\$6,272,431.50	0.7%	86.5%
238120	Structural Steel and Precast Concrete Contractors	\$6,242,645.00	0.7%	87.2%
541512	Computer Systems Design Services	\$6,094,189.50	0.7%	87.9%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
484220	Specialized Freight (except Used Goods) Trucking, Local	\$6,065,152.00	0.7%	88.5%
561210	Facilities Support Services	\$5,828,820.00	0.6%	89.1%
541330	Engineering Services	\$5,677,028.00	0.6%	89.8%
813920	Professional Organizations	\$5,649,228.00	0.6%	90.4%
326211	Tire Manufacturing (except Retreading)	\$5,528,860.00	0.6%	91.0%
562910	Remediation Services	\$5,398,416.00	0.6%	91.5%
525120	Health and Welfare Funds	\$4,649,994.50	0.5%	92.0%
562998	All Other Miscellaneous Waste Management Services	\$4,257,980.50	0.5%	92.5%
524210	Insurance Agencies and Brokerages	\$4,214,843.50	0.5%	93.0%
334519	Other Measuring and Controlling Device Manufacturing	\$3,891,950.00	0.4%	93.4%
561720	Janitorial Services	\$3,831,744.00	0.4%	93.8%
236210	Industrial Building Construction	\$3,637,517.25	0.4%	94.2%
531210	Offices of Real Estate Agents and Brokers	\$3,523,504.75	0.4%	94.6%
541420	Industrial Design Services	\$3,505,342.00	0.4%	94.9%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$3,486,277.75	0.4%	95.3%
517312	Wireless Telecommunications Carriers (except Satellite)	\$3,071,769.75	0.3%	95.6%
621999	All Other Miscellaneous Ambulatory Health Care Services	\$3,064,629.50	0.3%	96.0%
238320	Painting and Wall Covering Contractors	\$2,974,673.00	0.3%	96.3%
336510	Railroad Rolling Stock Manufacturing	\$2,939,002.00	0.3%	96.6%
238140	Masonry Contractors	\$2,338,564.00	0.3%	96.9%
332322	Sheet Metal Work Manufacturing	\$2,321,893.00	0.3%	97.1%
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$1,882,440.75	0.2%	97.3%
541850	Outdoor Advertising	\$1,858,263.00	0.2%	97.5%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
331110	Iron and Steel Mills and Ferroalloy Manufacturing	\$1,830,129.88	0.2%	97.7%
517919	All Other Telecommunications	\$1,541,428.25	0.2%	97.9%
332618	Other Fabricated Wire Product Manufacturing	\$1,456,413.00	0.2%	98.0%
561990	All Other Support Services	\$1,452,990.75	0.2%	98.2%
541350	Building Inspection Services	\$1,288,697.38	0.1%	98.3%
332510	Hardware Manufacturing	\$968,324.00	0.1%	98.4%
238330	Flooring Contractors	\$919,078.00	0.1%	98.5%
484110	General Freight Trucking, Local	\$819,127.19	0.1%	98.6%
541310	Architectural Services	\$807,964.62	0.1%	98.7%
561790	Other Services to Buildings and Dwellings	\$763,355.19	0.1%	98.8%
221320	Sewage Treatment Facilities	\$727,884.00	0.1%	98.9%
238150	Glass and Glazing Contractors	\$682,177.00	0.1%	98.9%
332312	Fabricated Structural Metal Manufacturing	\$673,387.00	0.1%	99.0%
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	\$585,621.00	0.1%	99.1%
334118	Computer Terminal and Other Computer Peripheral Equipment Manufacturing	\$510,485.00	0.1%	99.1%
624190	Other Individual and Family Services	\$491,096.00	0.1%	99.2%
321911	Wood Window and Door Manufacturing	\$448,920.00	0.0%	99.2%
238340	Tile and Terrazzo Contractors	\$402,160.00	0.0%	99.3%
541611	Administrative Management and General Management Consulting Services	\$395,566.00	0.0%	99.3%
541370	Surveying and Mapping (except Geophysical) Services	\$389,771.00	0.0%	99.4%
321918	Other Millwork (including Flooring)	\$355,041.00	0.0%	99.4%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
237110	Water and Sewer Line and Related Structures Construction	\$353,898.00	0.0%	99.4%
541380	Testing Laboratories	\$277,549.19	0.0%	99.5%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	\$270,310.00	0.0%	99.5%
238390	Other Building Finishing Contractors	\$268,113.00	0.0%	99.5%
334614	Software and Other Prerecorded Compact Disc, Tape, and Record Reproducing	\$257,346.50	0.0%	99.6%
541430	Graphic Design Services	\$257,002.00	0.0%	99.6%
334417	Electronic Connector Manufacturing	\$255,036.59	0.0%	99.6%
238110	Poured Concrete Foundation and Structure Contractors	\$233,460.77	0.0%	99.6%
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	\$228,886.00	0.0%	99.7%
561110	Office Administrative Services	\$219,938.27	0.0%	99.7%
332323	Ornamental and Architectural Metal Work Manufacturing	\$175,795.00	0.0%	99.7%
524114	Direct Health and Medical Insurance Carriers	\$174,982.34	0.0%	99.7%
424120	Stationery and Office Supplies Merchant Wholesalers	\$164,595.20	0.0%	99.7%
323111	Commercial Printing (except Screen and Books)	\$161,162.73	0.0%	99.8%
541618	Other Management Consulting Services	\$159,357.58	0.0%	99.8%
332311	Prefabricated Metal Building and Component Manufacturing	\$155,247.00	0.0%	99.8%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	\$155,015.00	0.0%	99.8%
541690	Other Scientific and Technical Consulting Services	\$143,630.00	0.0%	99.8%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
562219	Other Nonhazardous Waste Treatment and Disposal	\$134,000.00	0.0%	99.8%
541990	All Other Professional, Scientific, and Technical Services	\$125,607.00	0.0%	99.9%
541360	Geophysical Surveying and Mapping Services	\$120,271.36	0.0%	99.9%
491110	Postal Service	\$106,754.25	0.0%	99.9%
332321	Metal Window and Door Manufacturing	\$87,000.00	0.0%	99.9%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	\$81,419.00	0.0%	99.9%
722511	Full-Service Restaurants	\$78,214.18	0.0%	99.9%
238310	Drywall and Insulation Contractors	\$74,283.00	0.0%	99.9%
722320	Caterers	\$66,445.58	0.0%	99.9%
444190	Other Building Material Dealers	\$65,877.23	0.0%	99.9%
561730	Landscaping Services	\$64,743.00	0.0%	99.9%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	\$64,425.88	0.0%	99.9%
541870	Advertising Material Distribution Services	\$58,141.35	0.0%	99.9%
541820	Public Relations Agencies	\$53,987.30	0.0%	100.0%
561710	Exterminating and Pest Control Services	\$53,514.00	0.0%	100.0%
333517	Machine Tool Manufacturing	\$52,914.00	0.0%	100.0%
323113	Commercial Screen Printing	\$43,820.10	0.0%	100.0%
541890	Other Services Related to Advertising	\$36,185.53	0.0%	100.0%
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing	\$34,469.00	0.0%	100.0%
327993	Mineral Wool Manufacturing	\$30,942.00	0.0%	100.0%
484121	General Freight Trucking, Long-Distance, Truckload	\$30,700.00	0.0%	100.0%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
327390	Other Concrete Product Manufacturing	\$26,642.00	0.0%	100.0%
238190	Other Foundation, Structure, and Building Exterior Contractors	\$25,961.00	0.0%	100.0%
326199	All Other Plastics Product Manufacturing	\$19,868.00	0.0%	100.0%
323117	Books Printing	\$18,134.40	0.0%	100.0%
237130	Power and Communication Line and Related Structures Construction	\$16,072.00	0.0%	100.0%
541620	Environmental Consulting Services	\$12,809.00	0.0%	100.0%
711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities	\$9,225.00	0.0%	100.0%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	\$8,113.00	0.0%	100.0%
336390	Other Motor Vehicle Parts Manufacturing	\$3,730.00	0.0%	100.0%
333318	Other Commercial and Service Industry Machinery Manufacturing	\$3,622.00	0.0%	100.0%
<b>TOTAL</b>		<b>\$927,664,884.84</b>		<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data

**Table D-5: Industry Percentage Distribution of Contracts by Dollars Paid for Locally-Funded Contracts, Prime Contracts**

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
441310	Automotive Parts and Accessories Stores	\$263,836,976.00	36.9%	36.9%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$169,822,704.00	23.7%	60.6%
446110	Pharmacies and Drug Stores	\$77,677,488.00	10.9%	71.5%
237310	Highway, Street, and Bridge Construction	\$49,518,420.00	6.9%	78.4%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238210	Electrical Contractors and Other Wiring Installation Contractors	\$27,046,400.00	3.8%	82.2%
236220	Commercial and Institutional Building Construction	\$21,574,700.00	3.0%	85.2%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	\$15,944,367.00	2.2%	87.4%
541511	Custom Computer Programming Services	\$11,803,698.00	1.7%	89.1%
221210	Natural Gas Distribution	\$8,341,622.50	1.2%	90.3%
238290	Other Building Equipment Contractors	\$7,078,023.00	1.0%	91.2%
561210	Facilities Support Services	\$5,828,820.00	0.8%	92.1%
813920	Professional Organizations	\$5,649,228.00	0.8%	92.8%
326211	Tire Manufacturing (except Retreading)	\$5,528,860.00	0.8%	93.6%
541512	Computer Systems Design Services	\$5,025,378.00	0.7%	94.3%
525120	Health and Welfare Funds	\$4,649,994.50	0.7%	95.0%
562998	All Other Miscellaneous Waste Management Services	\$4,125,100.50	0.6%	95.6%
561612	Security Guards and Patrol Services	\$4,028,259.50	0.6%	96.1%
541330	Engineering Services	\$3,996,000.50	0.6%	96.7%
334519	Other Measuring and Controlling Device Manufacturing	\$3,891,950.00	0.5%	97.2%
236210	Industrial Building Construction	\$3,637,517.25	0.5%	97.7%
531210	Offices of Real Estate Agents and Brokers	\$3,523,504.75	0.5%	98.2%
621999	All Other Miscellaneous Ambulatory Health Care Services	\$3,064,629.50	0.4%	98.6%
517312	Wireless Telecommunications Carriers (except Satellite)	\$2,985,622.75	0.4%	99.1%
524210	Insurance Agencies and Brokerages	\$2,625,993.50	0.4%	99.4%
541850	Outdoor Advertising	\$1,858,263.00	0.3%	99.7%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$1,807,440.75	0.3%	99.9%
541310	Architectural Services	\$398,016.31	0.1%	100.0%
<b>TOTAL</b>		<b>\$715,268,977.31</b>		<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data

**Table D-6: Industry Percentage Distribution of Contracts by Dollars Paid for Locally-Funded Contracts, Sub Contracts**

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238210	Electrical Contractors and Other Wiring Installation Contractors	\$58,412,856.00	27.5%	27.5%
561320	Temporary Help Services	\$17,877,110.00	8.4%	35.9%
541613	Marketing Consulting Services	\$12,687,313.00	6.0%	41.9%
238160	Roofing Contractors	\$11,983,866.00	5.6%	47.5%
237990	Other Heavy and Civil Engineering Construction	\$7,105,067.50	3.3%	50.9%
238350	Finish Carpentry Contractors	\$6,482,724.00	3.1%	53.9%
238910	Site Preparation Contractors	\$6,435,740.00	3.0%	57.0%
238990	All Other Specialty Trade Contractors	\$6,272,431.50	3.0%	59.9%
238120	Structural Steel and Precast Concrete Contractors	\$6,242,645.00	2.9%	62.9%
484220	Specialized Freight (except Used Goods) Trucking, Local	\$6,065,152.00	2.9%	65.7%
562910	Remediation Services	\$5,398,416.00	2.5%	68.3%
541511	Custom Computer Programming Services	\$5,241,446.50	2.5%	70.7%
238290	Other Building Equipment Contractors	\$4,721,149.50	2.2%	72.9%
237310	Highway, Street, and Bridge Construction	\$4,324,887.00	2.0%	75.0%
561720	Janitorial Services	\$3,831,744.00	1.8%	76.8%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
541420	Industrial Design Services	\$3,505,342.00	1.7%	78.4%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$3,486,277.75	1.6%	80.1%
561612	Security Guards and Patrol Services	\$3,219,052.75	1.5%	81.6%
238320	Painting and Wall Covering Contractors	\$2,974,673.00	1.4%	83.0%
336510	Railroad Rolling Stock Manufacturing	\$2,939,002.00	1.4%	84.4%
238140	Masonry Contractors	\$2,338,564.00	1.1%	85.5%
332322	Sheet Metal Work Manufacturing	\$2,321,893.00	1.1%	86.6%
331110	Iron and Steel Mills and Ferroalloy Manufacturing	\$1,830,129.88	0.9%	87.4%
541330	Engineering Services	\$1,681,027.50	0.8%	88.2%
524210	Insurance Agencies and Brokerages	\$1,588,849.88	0.7%	89.0%
517919	All Other Telecommunications	\$1,541,428.25	0.7%	89.7%
332618	Other Fabricated Wire Product Manufacturing	\$1,456,413.00	0.7%	90.4%
561990	All Other Support Services	\$1,452,990.75	0.7%	91.1%
541350	Building Inspection Services	\$1,288,697.38	0.6%	91.7%
541512	Computer Systems Design Services	\$1,068,811.50	0.5%	92.2%
332510	Hardware Manufacturing	\$968,324.00	0.5%	92.6%
238330	Flooring Contractors	\$919,078.00	0.4%	93.1%
484110	General Freight Trucking, Local	\$819,127.19	0.4%	93.4%
561790	Other Services to Buildings and Dwellings	\$763,355.19	0.4%	93.8%
221320	Sewage Treatment Facilities	\$727,884.00	0.3%	94.2%
238150	Glass and Glazing Contractors	\$682,177.00	0.3%	94.5%
332312	Fabricated Structural Metal Manufacturing	\$673,387.00	0.3%	94.8%
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	\$585,621.00	0.3%	95.1%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	\$560,104.19	0.3%	95.3%
334118	Computer Terminal and Other Computer Peripheral Equipment Manufacturing	\$510,485.00	0.2%	95.6%
624190	Other Individual and Family Services	\$491,096.00	0.2%	95.8%
321911	Wood Window and Door Manufacturing	\$448,920.00	0.2%	96.0%
236220	Commercial and Institutional Building Construction	\$421,752.00	0.2%	96.2%
541310	Architectural Services	\$409,948.34	0.2%	96.4%
238340	Tile and Terrazzo Contractors	\$402,160.00	0.2%	96.6%
541611	Administrative Management and General Management Consulting Services	\$395,566.00	0.2%	96.8%
541370	Surveying and Mapping (except Geophysical) Services	\$389,771.00	0.2%	97.0%
321918	Other Millwork (including Flooring)	\$355,041.00	0.2%	97.1%
237110	Water and Sewer Line and Related Structures Construction	\$353,898.00	0.2%	97.3%
541380	Testing Laboratories	\$277,549.19	0.1%	97.4%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	\$270,310.00	0.1%	97.6%
238390	Other Building Finishing Contractors	\$268,113.00	0.1%	97.7%
334614	Software and Other Prerecorded Compact Disc, Tape, and Record Reproducing	\$257,346.50	0.1%	97.8%
541430	Graphic Design Services	\$257,002.00	0.1%	97.9%
334417	Electronic Connector Manufacturing	\$255,036.59	0.1%	98.0%
238110	Poured Concrete Foundation and Structure Contractors	\$233,460.77	0.1%	98.2%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
441310	Automotive Parts and Accessories Stores	\$233,177.77	0.1%	98.3%
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	\$228,886.00	0.1%	98.4%
561110	Office Administrative Services	\$219,938.27	0.1%	98.5%
332323	Ornamental and Architectural Metal Work Manufacturing	\$175,795.00	0.1%	98.6%
524114	Direct Health and Medical Insurance Carriers	\$174,982.34	0.1%	98.6%
424120	Stationery and Office Supplies Merchant Wholesalers	\$164,595.20	0.1%	98.7%
323111	Commercial Printing (except Screen and Books)	\$161,162.73	0.1%	98.8%
541618	Other Management Consulting Services	\$159,357.58	0.1%	98.9%
332311	Prefabricated Metal Building and Component Manufacturing	\$155,247.00	0.1%	98.9%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	\$155,015.00	0.1%	99.0%
541690	Other Scientific and Technical Consulting Services	\$143,630.00	0.1%	99.1%
562219	Other Nonhazardous Waste Treatment and Disposal	\$134,000.00	0.1%	99.1%
562998	All Other Miscellaneous Waste Management Services	\$132,880.00	0.1%	99.2%
541990	All Other Professional, Scientific, and Technical Services	\$125,607.00	0.1%	99.3%
541360	Geophysical Surveying and Mapping Services	\$120,271.36	0.1%	99.3%
491110	Postal Service	\$106,754.25	0.1%	99.4%
332321	Metal Window and Door Manufacturing	\$87,000.00	0.0%	99.4%
517312	Wireless Telecommunications Carriers (except Satellite)	\$86,146.88	0.0%	99.5%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	\$81,419.00	0.0%	99.5%
722511	Full-Service Restaurants	\$78,214.18	0.0%	99.5%
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$75,000.00	0.0%	99.6%
238310	Drywall and Insulation Contractors	\$74,283.00	0.0%	99.6%
722320	Caterers	\$66,445.58	0.0%	99.6%
444190	Other Building Material Dealers	\$65,877.23	0.0%	99.7%
561730	Landscaping Services	\$64,743.00	0.0%	99.7%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	\$64,425.88	0.0%	99.7%
541870	Advertising Material Distribution Services	\$58,141.35	0.0%	99.8%
541820	Public Relations Agencies	\$53,987.30	0.0%	99.8%
561710	Exterminating and Pest Control Services	\$53,514.00	0.0%	99.8%
333517	Machine Tool Manufacturing	\$52,914.00	0.0%	99.8%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$49,978.32	0.0%	99.8%
323113	Commercial Screen Printing	\$43,820.10	0.0%	99.9%
541890	Other Services Related to Advertising	\$36,185.53	0.0%	99.9%
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing	\$34,469.00	0.0%	99.9%
327993	Mineral Wool Manufacturing	\$30,942.00	0.0%	99.9%
484121	General Freight Trucking, Long-Distance, Truckload	\$30,700.00	0.0%	99.9%
327390	Other Concrete Product Manufacturing	\$26,642.00	0.0%	99.9%
238190	Other Foundation, Structure, and Building Exterior Contractors	\$25,961.00	0.0%	100.0%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
326199	All Other Plastics Product Manufacturing	\$19,868.00	0.0%	100.0%
323117	Books Printing	\$18,134.40	0.0%	100.0%
237130	Power and Communication Line and Related Structures Construction	\$16,072.00	0.0%	100.0%
541620	Environmental Consulting Services	\$12,809.00	0.0%	100.0%
711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities	\$9,225.00	0.0%	100.0%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	\$8,113.00	0.0%	100.0%
336390	Other Motor Vehicle Parts Manufacturing	\$3,730.00	0.0%	100.0%
333318	Other Commercial and Service Industry Machinery Manufacturing	\$3,622.00	0.0%	100.0%
<b>TOTAL</b>		<b>\$212,395,895.85</b>		<b>100.0%</b>

Source: CHA analysis of Chicago Transit Authority data

