

CHAPTER 1.

Introduction

The Ohio Department of Transportation (ODOT) is responsible for developing and maintaining state and federal roadways as well as helping develop public transit and aviation programs throughout the state. As a United States Department of Transportation (USDOT) fund recipient, ODOT implements the Federal Disadvantaged Business Enterprise (DBE) Program, which is designed to address potential discrimination against DBEs in the award and administration of USDOT-funded contracts and procurements. ODOT retained BBC Research & Consulting (BBC) to conduct an *availability study* to assess the degree to which person of color- (POC-) and woman-owned businesses are ready, willing, and able to perform work on the agency's USDOT-funded contracts and procurements. Information from the study will help ODOT make important decisions regarding its implementation of the Federal DBE Program, including around refinements to various program measures and setting its next overall goals for the participation of DBEs in USDOT-funded work.

BBC introduces the 2022 ODOT Availability Study in three parts:

- A. Background;
- B. Study scope; and
- C. Study team members.

A. Background

The Federal DBE Program is designed to increase the participation of POC- and woman-owned businesses in USDOT-funded contracts. As a direct recipient of funds from the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funds—both of which are USDOT offices—ODOT must implement the Federal DBE Program and comply with corresponding federal regulations.

1. Setting overall goals for DBE participation. As part of the Federal DBE Program, every three years, ODOT is required to set overall aspirational percentage goals for DBE participation in its FHWA- and FTA-funded contracts and procurements, which the agency must work towards achieving each year through various efforts.¹ If DBE participation in its FHWA- or FTA-funded work is less than the respective overall DBE goal in a particular year, then ODOT must analyze the reasons for the difference and establish specific measures that will enable it to meet the goal in the next year.

USDOT describes a two-step process agencies must use in establishing their *overall DBE goals*. First, an agency must develop *base figures* for its overall DBE goals based on demonstrable

¹ <http://www.gpo.gov/fdsys/pkg/FR-2011-01-28/html/2011-1531.htm>

evidence of the availability of DBEs to participate in its USDOT-funded contracts and procurements. Second, the agency must consider conditions in the local marketplace for POC- and woman-owned businesses as well as other factors and determine whether upward or downward adjustments to its base figures are necessary to ensure its overall DBE goals are as precise as possible (referred to as *step 2 adjustments*). An agency is not required to make step 2 adjustments to its base figures, but it is required to consider various relevant factors and explain its decision to the relevant USDOT office.

2. Race- and gender-neutral and race- and gender-conscious measures. USDOT also requires agencies to project the portion of their overall DBE goals they will meet through *race- and gender-neutral* measures and any *race- and gender-conscious* measures. Race- and gender-neutral measures are designed to encourage the participation of all businesses—or all small businesses—in an agency’s work, regardless of the race/ethnicity or gender of business owners (for examples of race- and gender-neutral measures, see 49 Code of Federal Regulations (CFR) Section 26.51(b)). Agencies are required to maximize their use of race- and gender-neutral measures in encouraging the participation of POC- and woman-owned businesses in their USDOT-funded work. If an agency cannot achieve its overall DBE goals solely through the use of race- and gender-neutral measures, then it must consider also using *race- and gender-conscious* measures. Race- and gender-conscious measures are designed to encourage the participation of POC- and woman-owned businesses specifically in an agency’s work (e.g., using DBE goals to award individual contracts).

ODOT uses DBE contract goals to award many of its FHWA- contracts and procurements, which is a race- and gender-conscious measure. Prime contractors competing for that work must meet the goals at the time of submitting bids by: 1) making subcontracting commitments to certified DBEs; or 2) submitting *good faith efforts* (GFE) documentation. ODOT reviews GFE documentation and approves it if prime contractors demonstrate genuine efforts towards compliance with DBE goals, even if they were ultimately unsuccessful in partnering with DBE subcontractors. If prime contractors do not meet the goals through subcontracting commitments with DBEs or acceptable GFEs, then ODOT can reject prime contractors’ bids.

B. Study Scope

BBC conducted an availability study for ODOT to provide information about the availability of POC- and woman-owned businesses for the agency’s FHWA- and FTA-funded contracts and procurements. Results from the study will inform ODOT’s overall DBE goals for FHWA- and FTA-funded work and help ODOT make other decisions regarding its implementation of the Federal DBE Program.

1. Definitions of POC- and woman-owned businesses. To interpret the analyses presented in the availability study, it is useful to understand how BBC defined POC- and woman-owned businesses and other businesses in its analyses. Throughout the availability study, BBC uses the term *POC* to refer to individuals who identify as non-white and *POC-owned businesses* to refer to businesses owned by individuals who identify as non-white. The terms *minority* and *minority-owned businesses* can be diminishing of men and women of color and do not always accurately reflect the demographics of a region.

a. POC-owned businesses. BBC defined POC-owned businesses as businesses that were at least 51 percent owned and controlled by men or women who identified as being members of one of the racial/ethnic groups presumed to be disadvantaged as part of the Federal DBE Program:

- Asian Pacific Americans;
- Black Americans;
- Hispanic Americans;
- Native Americans; and
- Subcontinent Asian Americans.

BBC combined results for businesses owned by men of color and women of color of the same race/ethnicity. For example, we combined results for businesses owned by Black American men with results for businesses owned by Black American women to represent the availability of all Black American-owned businesses in general. We considered businesses to be POC-owned based on the known races/ethnicities of business owners, regardless of whether the businesses were certified as such by any relevant organizations.

b. Woman-owned businesses. Because BBC classified businesses owned by women of color as POC-owned businesses corresponding to the racial/ethnic groups with which their owners identify, analyses and results pertaining to woman-owned businesses pertain specifically to *non-Hispanic white woman-owned businesses*.² Similar to our definition of POC-owned businesses, BBC defined woman-owned businesses as businesses that were at least 51 percent owned and controlled by individuals who identify as white women, regardless of whether the businesses were certified as such by any relevant organizations.

c. DBEs. DBEs are POC- and woman-owned businesses specifically certified as DBEs by ODOT or one of the other representatives of the Ohio Unified Certification Program (UCP). A determination of DBE eligibility includes assessing businesses' gross revenues and business owners' personal net worths. Some POC- and woman-owned businesses cannot qualify as DBEs because their gross revenues or their owners' net worths are too high. Businesses seeking DBE certification in Ohio are required to submit an application to the Ohio UCP. The application is available online and requires businesses to submit various information about their organizations, including business name, contact information, tax information, work

² For brevity, BBC subsequently refers to non-Hispanic white woman-owned businesses as *woman-owned businesses*.

specializations, and information about the race/ethnicity and gender of their owners. ODOT or another UCP representative reviews those applications, which involves on-site meetings and additional documentation to confirm business information.³

d. Potential DBEs. Potential DBEs are POC- and woman-owned businesses that are DBE-certified or appear they could be DBE-certified based on revenue requirements set forth in 49 CFR Part 26 (regardless of actual certification). BBC did not consider businesses that have been decertified from the Federal DBE Program as potential DBEs in the study. In accordance with USDOT regulations and guidance, we examined the availability of potential DBEs to inform base figure calculations for ODOT's next overall DBE goals.

2. Study analyses and report. BBC estimated the availability of POC- and woman-owned businesses for ODOT's FHWA- and FTA-funded work. The study focused on relevant construction, professional services, and goods and other services contracts and procurements ODOT and subrecipient local agencies awarded between July 1, 2018 and June 30, 2021 (i.e., the study period).⁴ We report results and information from the availability study in the following manner:

- **Chapter 1: Introduction.** Chapter 1 introduces the availability study, including background information, study scope, and the study team.
- **Chapter 2: Data Collection.** Chapter 2 presents information on the contracting and vendor data the study team collected from ODOT and other sources.
- **Chapter 3: Availability Analysis.** Chapter 3 presents information on the methodology BBC used to conduct the availability analysis as well as results from the analysis.
- **Chapter 4: Overall DBE Goals.** Chapter 4 presents guidance related to ODOT's next overall DBE goals for its FHWA- and FTA-funded contracts and procurements.
- **Chapter 5: Summary and Implications.** Chapter 5 presents a summary of key study results as well as their potential implications.
- **Appendix A: Definition of Terms.** Appendix A provides definitions of terms important to interpreting the availability study.
- **Appendix B: Availability Analysis Methodology.** Appendix B expands on the information in Chapter 3 to provide additional details on the methodology BBC used to conduct the availability analysis.

³ Businesses owned by white men can also be certified as DBEs if those businesses meet the certification requirements in 49 CFR Part 26 and can demonstrate social or economic disadvantage.

⁴ Goods and other services contracts and procurements accounted for only 0.2 percent of ODOT's and subrecipient local agencies' FHWA-funded work during the study period. Consequently, BBC included goods and other services contracts and procurements in analyses related to FTA-funded work but not in analyses related to FHWA-funded work.

- **Appendix C: Availability Analysis Results Tables.** Appendix C presents detailed tables of availability analysis results for relevant business groups and different sets of contracts and procurements.

C. Study Team Members

The BBC study team was made up of two firms that, collectively, possess decades of experience related to conducting availability studies successfully and accurately.

1. BBC (prime consultant). BBC is a diversity and economic research firm based in Denver, Colorado. We had overall responsibility for the study and performed all analyses.

2. Davis Research. Davis Research is a survey fieldwork firm based in Calabasas, California. The firm conducted telephone and online surveys with thousands of Ohio businesses in connection with the availability analysis.

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CHAPTER 2.

Collection and Analysis of Contract Data

Chapter 2 provides an overview of the contracts and procurements BBC Research & Consulting (BBC) analyzed as part of the availability study and the process we used to collect relevant contract, procurement, and vendor data for the availability study. Chapter 2 is organized into four parts:

- A. Contract and procurement data;
- B. Vendor data;
- C. Relevant types of work; and
- D. Review process.

A. Contract and Procurement Data

BBC examined data on Federal Highway Administration (FHWA-) and Federal Transit Administration- (FTA-) funded contracts and procurements the Ohio Department of Transportation (ODOT) and subrecipient local agencies awarded between July 1, 2018 and June 30, 2021 (i.e., the *study period*). We worked closely with ODOT and subrecipient local agencies to collect data on relevant construction, professional services, and goods and other services prime contracts and subcontracts they awarded during that time period.

1. ODOT. BBC met with ODOT staff to determine what types of data the agency maintained on FHWA- and FTA-funded contracts and procurements it awarded during the study period. ODOT provided BBC with data on the relevant prime contracts and associated subcontracts it awarded from several systems: Ellis and AASHTOWare Project for construction projects, CSS for professional services projects, and BlackCat for goods and other services projects. Based on guidance from ODOT, we determined whether each contract or procurement included FHWA or FTA funds, and if it did, we included it as part of our analyses.¹

2. Subrecipient local agencies (FHWA). In addition to projects ODOT awards itself, the agency uses FHWA money to fund transportation-related projects that various Ohio government agencies award each year. ODOT maintains complete prime contract information for those projects but does not maintain comprehensive subcontract information. We worked with ODOT's of Local Programs (OLP) to develop a sampling plan to collect subcontract data on contracts and procurements subrecipient local agencies awarded during the study period using ODOT FHWA funds. As part of the sampling plan, we sought subcontract data on:

- All contracts and procurements subrecipient local agencies awarded worth \$5 million or more that included ODOT FHWA funds;

¹ If a contract or procurement included both FHWA and FTA funding, BBC determined whether ODOT used FHWA or FTA policies to award the work and classified the contract or procurement as either FHWA-funded or FTA-funded accordingly.

- A random sample of one-third of contracts and procurements subrecipient local agencies awarded worth more than \$1 million but less than \$5 million that included ODOT FHWA funds, with the constraint that we did not seek subcontract data on more than six such contracts or procurements for a particular agency; and
- A random sample of one-fourth of contracts and procurements subrecipient local agencies awarded worth less than \$1 million that included ODOT FHWA funds, with the same constraint that we did not seek subcontract data on more than six such contracts or procurements for a particular agency.

BBC then worked with OLP to e-mail data request forms to each relevant subrecipient local agency and send follow-up requests to nonresponsive agencies. In total, we reached out to 120 agencies about 196 contracts and procurements worth more than \$500 million. We successfully collected subcontract data on 163 contracts and procurements worth approximately \$413 million, which represented 83 percent of the dollars included in the sampling plan. We weighted the resulting data to appropriately account for the contracts and procurements for which we did not have comprehensive subcontract data (i.e., those contracts and procurements worth less than \$5 million that were not included in the sampling plan and those contracts and procurements included in the sampling plan for which subrecipient local agencies did not provide subcontract data).

3. Subrecipient local agencies (FTA). ODOT also uses FTA money to fund transit-related projects that various rural transit agencies in Ohio award each year as well as to fund agency operations (particularly those authorized under sections 5310, 49 U.S.C. 5310 – Enhanced Mobility of Seniors & Individuals with Disabilities and 5311, 49 U.S.C. 5311 – Formula Grants for Rural Areas). Because ODOT only maintains prime contract expenditure data on the transit-related projects it helps fund, BBC worked with ODOT’s Office of Transit to contact seven subrecipient transit agencies that were geographically representative of all subrecipient transit agencies and requested prime contract and subcontract data on projects they awarded during the study period using ODOT FTA funds. We e-mailed data request forms to each agency, answered any questions, and sent follow-up requests to nonresponsive agencies. We successfully gathered prime contract and subcontract data from six of the agencies, accounting for 96 percent of the contract and procurement dollars for which we sought information. We weighted the resulting data to appropriately account for contracts and procurements for which data were not available.

4. Prime contract and subcontract amounts. For each *contract element*—that is, prime contract or subcontract—included in our analyses, BBC examined the dollars ODOT awarded to each prime contractor and the dollars prime contractors committed to any subcontractors. If a contract or procurement did not include any subcontracts, we attributed the entire award amount to the prime contractor. If a contract or procurement included subcontracts, we considered the prime contract amount as the total award amount less the sum of dollars committed to all subcontractors. In instances where there were second-tier subcontractors, we considered second-tier subcontract amounts as the amounts committed to each second-tier subcontractor. We then calculated the first-tier subcontract amounts as the total amount committed to each first-tier subcontractor less the sum of dollars committed to all second-tier subcontractors associated with that subcontract.

5. Contracts included in study analyses. Figure 2-1 presents the number of contract elements BBC included in our analyses by contract and funding type. In total, we collected information on 15,156 FHWA-funded and 259 FTA-funded contract elements ODOT awarded during the study period, which represented approximately \$4.8 billion of work.

Figure 2-1.
ODOT and local agency contract elements included in the study

Source:
BBC from ODOT data.

Contract type	Contract elements	Dollars (in thousands)
FHWA-funded		
Construction	13,624	\$4,492,366
Professional services	1,532	\$243,780
Good and other services	N/A	N/A
Total	15,156	\$4,736,146
FTA-funded		
Construction	38	\$838
Professional services	31	\$3,590
Good and other services	190	\$61,576
Total	259	\$66,004
GRAND TOTAL	15,415	\$4,802,149

B. Collection of Vendor Data

BBC also compiled the following information on businesses that participated in relevant ODOT and subrecipient local agency work during the study period:

- Business name;
- Physical addresses and phone numbers;
- Ownership status (i.e., whether each business was minority- or woman-owned);
- Ethnicity of ownership (if minority-owned);
- Certification status (i.e., whether each business was certified as a Disadvantaged Business Enterprise by the Ohio Unified Certification Program);
- Primary lines of work; and
- Business size.

BBC relied on a variety of sources for that information, including:

- ODOT and local agency contract and vendor data;
- Certification lists;
- United States Small Business Administration certification and ownership lists;
- Dun & Bradstreet (D&B) business listings and other business information sources;
- Business surveys we conducted as part of the availability analysis; and

- Business websites.

C. Relevant Types of Work

For each contract element, BBC determined the *subindustry* that best characterized the vendors' primary lines of work (e.g., concrete work). We identified subindustries based on agency data, business surveys we conducted, certification lists, D&B business listings, and other sources. Figure 2-2 presents the dollars the study included for each relevant subindustry. We combined related types of work that accounted for relatively small percentages of total contracting dollars into three "other" subindustries: "other construction services," "other construction materials," and "other professional services." For example, the contracting dollars ODOT and subrecipient local agencies awarded to contractors for "street cleaning and sweeping" represented less than 1 percent of total dollars we included in the study. So, we combined "street cleaning and sweeping" with other types of construction services that also accounted for small percentages of total dollars and that were dissimilar to other subindustries into "other construction services."

There was also work we categorized in various subindustries that we did not include as part of our analyses, including work that:

- Was part of subindustries not typically included in department of transportation-related availability studies and that accounted for relatively small proportions of ODOT and subrecipient local agency work (\$19 million).²
- Reflected *national markets*—that is, subindustries dominated by large national or international businesses—or were part of subindustries for which ODOT and subrecipient local agencies awarded the majority of contracting dollars to businesses located outside of the relevant geographic market area (\$8 million);³
- Were part of subindustries which often include property purchases, leases, or other pass-through dollars (e.g., real estate leases or banking services; \$233,000); or
- ODOT and subrecipient local agencies awarded to government agencies, utility providers, hospitals, or other nonprofit organizations (\$6 million).

D. Agency Review Process

ODOT and subrecipient local agencies reviewed BBC's contracting and vendor data several times during the study process. We met with them to review the data collection process, information we gathered, and data summaries. We incorporated their feedback into the final contract and vendor data we used as part of the availability study.

² Examples of such work include vehicle repair services and equipment maintenance.

³ Examples of such work include computer manufacturing and proprietary software.

Figure 2-2.
ODOT and subrecipient local agency dollars by subindustry

Contract type and subindustry	Funding type total (in thousands)	
	FHWA-funded	FTA-funded
Construction		
Highway, street, and bridge construction	\$3,275,397	\$0
Painting, striping, and marking	\$217,875	\$0
Fencing, guardrails, barriers, and signs	\$165,022	\$3
Excavation, drilling, wrecking, and demolition	\$162,979	\$0
Concrete work	\$150,271	\$0
Electrical work	\$99,478	\$0
Trucking, hauling and storage	\$94,484	\$2
Concrete, asphalt, sand, and gravel products	\$57,598	\$0
Water, sewer, and utility lines	\$52,701	\$0
Landscape services	\$29,294	\$0
Traffic control and safety	\$24,099	\$0
Rebar and reinforcing steel	\$17,736	\$0
Plumbing and HVAC	\$15,610	\$47
Building construction	\$7,767	\$611
Other construction services	\$68,191	\$0
Other construction materials	\$53,863	\$175
Total	\$4,492,366	\$838
Professional services		
Engineering	\$148,794	\$200
Construction management	\$31,327	\$0
Transportation planning services	\$18,391	\$3,136
Testing and inspection	\$21,074	\$0
Surveying and mapmaking	\$15,008	\$0
Environmental services	\$5,338	\$0
IT and data services	\$14	\$142
Other professional services	\$3,834	\$111
Total	\$243,780	\$3,590
Professional services		
Transit services	N/A	\$60,047
Vehicle parts and supplies	N/A	\$916
Automobiles	N/A	\$128
Office equipment and supplies	N/A	\$106
Cleaning and janitorial services	N/A	\$79
Vehicle repair services	N/A	\$61
Communications equipment	N/A	\$58
Industrial chemicals	N/A	\$1
Other services	N/A	\$105
Other goods	N/A	\$76
Total	N/A	\$61,576
GRAND TOTAL	\$4,736,146	\$66,004

Notes: Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.

Source: BBC from ODOT data.

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CHAPTER 3.

Availability Analysis

BBC Research & Consulting (BBC) analyzed the availability of person of color- (POC-) and woman-owned businesses *ready, willing, and able* to participate in the Federal Highway Administration- (FHWA-) and Federal Transit Administration- (FTA-) funded construction, professional services, and goods and other services prime contracts and subcontracts the Ohio Department of Transportation (ODOT) and subrecipient local agencies award.^{1, 2} Chapter 3 describes the availability analysis in six parts:

- A. Purpose of the analysis;
- B. Potentially available businesses;
- C. Availability database;
- D. Availability calculations; and
- E. Availability estimates.

Appendix B provides supporting information related to the availability analysis.

A. Purpose of the Analysis

BBC examined the availability of POC- and woman-owned businesses for ODOT's and subrecipient local agencies' FHWA- and FTA-funded work to inform ODOT's implementation of the Federal Disadvantaged Business Enterprise (DBE) Program. The analysis focused on the FHWA- and FTA-funded construction, professional services, and goods and other services prime contracts and subcontracts ODOT and subrecipient local agencies awarded between July 1, 2018 and June 30, 2021 (i.e., the *study period*). That work served as a proxy for the FHWA- and FTA-funded contracts and procurements they might award in the future.

B. Potentially Available Businesses

The availability analysis focused on specific areas of work, or *subindustries*, related to the FHWA- and FTA-funded work ODOT and subrecipient local agencies awarded during the study period. BBC began the analysis by identifying the specific subindustries in which ODOT and subrecipient local agencies spend the majority of those contracting dollars (for details, see Chapter 2) as well as the geographic area in which the majority of the businesses to which ODOT

¹ "Woman-owned businesses" refers specifically to *white woman-owned businesses*. Information and results for businesses owned by women of color are included along with their corresponding racial/ethnic groups.

² Goods and other services contracts and procurements accounted for only 0.2 percent of ODOT's and subrecipient local agencies' FHWA-funded work during the study period. Consequently, BBC included goods and other services contracts and procurements only in analyses related to FTA-funded work and not in analyses related to FHWA-funded work.

and subrecipient local agencies award those contracting dollars are located (i.e., the *relevant geographic market area, or RGMA*).³

BBC then conducted extensive surveys with hundreds of businesses to develop a representative and unbiased *availability database* of potentially available businesses located in the RGMA that perform work within relevant subindustries. The objective of the survey process was not to collect information from each and every relevant business operating in the local marketplace. Instead, it was to collect information from an unbiased subset of the relevant business population that appropriately represents the entire relevant business population. That approach allowed BBC to estimate the availability of POC- and woman-owned businesses for relevant ODOT and subrecipient local agency work in an accurate, statistically-valid manner.

1. Overview of availability surveys. The study team conducted telephone and online surveys with business owners and managers to identify Ohio businesses potentially available for ODOT's and subrecipient local agencies' FHWA- and FTA-funded prime contracts and subcontracts. BBC began the survey process by compiling a comprehensive and unbiased *phone book* of all types of businesses—regardless of the race/ethnicity or gender of business owners—that perform work in relevant industries and have a location in Ohio. BBC developed the phone book based on information from Dun & Bradstreet (D&B) Marketplace. We collected information about all business establishments D&B listed under 8-digit work specialization codes most related to the FHWA- and FTA-funded contracts and procurements ODOT and subrecipient local agencies awarded during the study period. We compiled information on a total of 18,543 Ohio businesses. We did not have working phone numbers for 1,201 of those businesses but attempted availability surveys with the remaining 17,342 businesses.

2. Availability survey information. BBC worked with Davis Research to conduct telephone and online surveys with the owners or managers of the businesses included in the phone book. Survey questions covered many topics about each business, including:

- Status as a private sector business (as opposed to a nonprofit organization);
- Status as a subsidiary or branch of another company;
- Primary lines of work;
- Interest in performing work for government organizations in Ohio;
- Interest in performing work as a prime contractor or subcontractor;
- Largest prime contract or subcontract the business is able to perform;
- Geographical areas of service; and
- Race/ethnicity and gender of ownership.

³ BBC identified the RGMA for ODOT's and subrecipient local agencies' FHWA- and FTA-funded work as the entire state of Ohio. We made that determination based on the fact that ODOT and subrecipient local agencies award the vast majority of associated contract and procurement dollars to businesses located within Ohio (98 percent of relevant dollars).

C. Availability Database

After conducting availability surveys, BBC developed an *availability database* that included information about businesses potentially available for relevant ODOT and subrecipient local agency contracts and procurements. We included businesses in the availability database if they reported possessing *all* of the following characteristics:

- Being a private sector business;
- Having a location in the RGMA;
- Having bid on or performed construction, professional services, or goods and other services prime contracts or subcontracts in the RGMA in the past five years;
- Having primary lines of work in subindustries directly relevant to ODOT's and subrecipient local agency's FHWA- and FTA-funded work; and
- Being interested in working for government organizations.

Figure 3-1 presents the percentage of businesses in the *availability database* that were POC- or woman-owned. The database included information on 1670 businesses potentially available for specific FHWA- and FTA-funded construction, professional services, and goods and other services contracts and procurements ODOT and subrecipient local agencies award. Of those businesses, 25.9 percent were POC- or woman-owned, which merely reflects a simple count of businesses with no analysis of their availability for specific ODOT or subrecipient local agency contracts or procurements. It represents only the first step in analyzing the availability of POC- and woman-owned businesses for that work.

Figure 3-1.
Percentage of businesses in the availability database that were POC- or woman-owned

Note:

Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.

Source:

BBC availability analysis.

Business group	Representation
All POC- and woman-owned	25.9 %
White woman-owned	13.0 %
POC-owned	12.9 %
Asian Pacific American-owned	1.1 %
Black American-owned	9.2 %
Hispanic American-owned	1.0 %
Native American-owned	0.7 %
Subcontinent Asian American-owned	1.0 %

D. Availability Calculations

BBC used a *custom census* approach—which accounts for specific business characteristics such as work type, business capacity, contractor role, interest in government work, and geographical areas of service—to estimate the availability of POC- and woman-owned businesses for ODOT's and subrecipient local agencies' FHWA- and FTA-funded work. To conduct the analysis, we compared the characteristics of potentially available businesses in the availability database to the characteristics of individual FHWA- and FTA-funded prime contracts and subcontracts ODOT and subrecipient local agencies awarded during the study period to develop dollar-weighted estimates of the degree to which POC- and woman-owned businesses are ready, willing, and able to perform that work.

Only a portion of the businesses in the availability database was considered potentially available for any given prime contract or subcontract. We first identified the characteristics of each specific prime contract or subcontract (referred to generally as a *contract element*), including type of work, contract size, contract role, and location of work, and then took the following steps to estimate availability for each contract element:

1. BBC identified businesses in the availability database that reported they:
 - Are interested in performing construction, professional services, or goods and other services work in that particular role for government organizations and perform the specific type of work involved;
 - Can perform work or serve customers in the geographical location where the work took place; and
 - Have bid on or performed work of that size or larger.⁴
2. We then counted the number of POC-owned businesses (by the race/ethnicity of the owners), woman-owned businesses, and businesses owned by white men in the availability database that met the criteria specified in Step 1.
3. The study team translated the counts of businesses in step 2 into percentages.

Figure 3-2 provides an example of how BBC calculated availability for a specific subcontract associated with a construction prime contract ODOT awarded during the study period.

BBC repeated the above steps for each contract element included in the disparity study, and then multiplied the percentages of businesses for each contract element by the dollars associated with it, added results across all contract elements, and divided by the total dollars for all contract elements. The result was dollar-weighted estimates of the percentage of relevant contracting and procurement dollars one would expect ODOT and subrecipient local agencies to award to POC- and woman-owned businesses based on their availability for specific types and sizes of that work. We estimated availability for POC- and woman-owned businesses considered together and separately for each relevant racial/ethnic and gender group. We also estimated availability separately for various sets of contracts and procurements ODOT and subrecipient local agencies award.

⁴ Because of the unique nature of certain types of FTA-funded contracts and procurements ODOT and subrecipient local agencies award, BBC made two adjustments to our approach to estimating availability for that work. First, we counted businesses as potentially available for a particular FTA-funded contract or procurement if their primary lines of work were in the same industry—that is, construction, professional services, or goods and other services—as the work involved in the contract element rather than basing that determination on an exact match between businesses’ primary lines of work and the specific type of work involved in the contract element. Second, because of some discrepancies between goods and other services businesses’ reported capacities and their reported average annual revenues, we limited goods and other services businesses’ capacities to twice the value of their reported average annual revenues. Doing so resulted in changes to reported capacities for nine goods and other services businesses included in the availability database.

E. Availability Estimates

BBC estimated the availability of POC- and woman-owned businesses for the FHWA- and FTA-funded construction, professional services, and goods and other services prime contracts and subcontracts ODOT and subrecipient local agencies awarded during the study period. BBC presents availability estimates for all POC- and woman-owned businesses considered together as well as separately for each relevant racial/ethnic group and different sets of contracts and procurements.

1. Overall. Figure 3-3 presents estimates of the availability of POC- and woman-owned businesses for ODOT's and subrecipient local agencies' FHWA- and FTA-funded contracts and procurements. As shown in Figure 3-3, the availability of POC- and woman-owned businesses is somewhat greater for ODOT's and subrecipient local agencies' FHWA-funded work (22.0%) than for their FTA-funded work (20.3%). Availability estimates differed across individual business groups and by funding type:

- The business groups that exhibit the greatest availability for FHWA-funded work are white woman-owned businesses (10.4%), Black American-owned businesses (6.3%), and Native American-owned businesses (3.6%).
- The business groups that exhibit the greatest availability for FTA-funded work are white woman-owned businesses (10.0%), Black American-owned businesses (6.6%), and Asian Pacific American-owned businesses (3.3%).

Figure 3-3.
Availability estimates for
FHWA- and FTA-funded work

Note:

Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.

For more detail and results by group, see Figure C-2 and C-14 in Appendix C.

FHWA analyses include construction and professional services work. FTA analyses include construction, professional services, and goods and other services work.

Source:

BBC availability analysis.

Figure 3-2.
Example of an availability
calculation for an ODOT subcontract

On a FHWA-funded construction contract ODOT awarded during the study period, the prime contractor awarded a subcontract worth \$701,250 for engineering services. To determine the overall availability of POC- and woman-owned businesses for the subcontract, BBC identified businesses in the availability database that:

- a. Indicated they perform engineering services;
- b. Reported being able to perform work of that size or bigger;
- c. Indicated they can serve customers in the geographical location where the work took place; and
- d. Reported interest in working as a subcontractor on government contracts or procurements in Ohio.

BBC identified 65 businesses in the availability database that met those criteria, and of those businesses, 17 were POC- or woman-owned. Thus, the availability of POC- and woman-owned businesses for the subcontract was 26.2 percent (i.e., $17/65 \times 100 = 26.2$).

Business group	Funding source	
	FHWA	FTA
All POC- and woman-owned	22.0 %	20.3 %
White woman-owned	10.4 %	10.0 %
POC-owned	11.7 %	10.4 %
Asian Pacific American-owned	0.6 %	3.3 %
Black American-owned	6.3 %	6.6 %
Hispanic American-owned	0.3 %	0.3 %
Native American-owned	3.6 %	0.1 %
Subcontinent Asian American-owned	0.9 %	0.1 %

2. Contract role. Many POC- and woman-owned businesses are small businesses and often work as subcontractors. Because of that tendency, it is useful to examine availability estimates separately for FHWA- and FTA-funded prime contracts and subcontracts ODOT and subrecipient local agencies award. As shown in Figure 3-4, which presents availability estimates for FHWA- and FTA-funded work in the top and bottom panels, respectively, the availability of POC- and woman-owned businesses considered together is less for prime contracts than for subcontracts for both FHWA-funded work (prime contracts = 20.9%; subcontracts = 24.7%) and FTA-funded work (prime contracts = 20.2%; subcontracts = 26.0%)

Figure 3-4.
Availability estimates for prime contracts and subcontracts

Note:

Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.

For more detail, see Figures C-5, C-6, C-14, and C-15 in Appendix C.

FHWA analyses include construction and professional services work. FTA analyses include construction, professional services, and goods and other services work.

Source:

BBC availability analysis.

Funding type and business group	Role	
	Prime contracts	Subcontracts
FHWA		
All POC- and woman-owned	20.9 %	24.7 %
White woman-owned	9.8 %	11.6 %
POC-owned	11.1 %	13.1 %
Asian Pacific American-owned	0.6 %	0.5 %
Black American-owned	5.1 %	9.2 %
Hispanic American-owned	0.2 %	0.5 %
Native American-owned	4.2 %	2.2 %
Subcontinent Asian American-owned	1.1 %	0.6 %
FTA		
All POC- and woman-owned	20.2 %	26.0 %
White woman-owned	10.0 %	10.4 %
POC-owned	10.3 %	15.6 %
Asian Pacific American-owned	3.3 %	2.7 %
Black American-owned	6.5 %	8.0 %
Hispanic American-owned	0.3 %	1.1 %
Native American-owned	0.0 %	0.9 %
Subcontinent Asian American-owned	0.1 %	2.8 %

3. Industry. BBC also examined availability estimates separately for construction, professional services, and goods and other services work to assess whether the availability of POC- and woman-owned businesses for ODOT and subrecipient local agency differs by industry. As shown in Figure 3-5, which presents availability estimates for FHWA- and FTA-funded work in the top and bottom panels, respectively, the availability of POC- and woman-owned businesses differed across both industry and by funding type:

- The availability of POC- and woman-owned businesses considered together is slightly more for FHWA-funded construction work (22.1%) than for FHWA-funded professional services work (21.7%).
- The availability of POC- and woman-owned businesses considered together is greatest for FTA-funded construction work (27.8%) followed by professional services work (23.6%) and then goods and other services work (20.0%).

Figure 3-5.
Availability estimates for construction,
professional services, and good and other services work

Business group	Industry		
	Construction	Professional services	Goods and other services
FHWA			
All POC- and woman-owned	22.1 %	21.7 %	N/A
White woman-owned	10.5 %	8.3 %	N/A
POC-owned	11.6 %	13.5 %	N/A
Asian Pacific American-owned	0.5 %	2.4 %	N/A
Black American-owned	6.3 %	5.4 %	N/A
Hispanic American-owned	0.3 %	0.8 %	N/A
Native American-owned	3.7 %	0.9 %	N/A
Subcontinent Asian American-owned	0.8 %	4.0 %	N/A
FTA			
All POC- and woman-owned	27.8 %	23.6 %	20.0 %
White woman-owned	17.2 %	9.7 %	9.9 %
POC-owned	10.6 %	13.9 %	10.2 %
Asian Pacific American-owned	0.7 %	1.9 %	3.4 %
Black American-owned	6.8 %	7.6 %	6.5 %
Hispanic American-owned	0.4 %	1.3 %	0.2 %
Native American-owned	1.9 %	0.8 %	0.0 %
Subcontinent Asian American-owned	0.8 %	2.4 %	0.0 %

Notes: Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.

For more detail, see Figures C-3, C-4, C-11, C-12, and C-13 in Appendix C.

FHWA analyses include construction and professional services work. FTA analyses include construction, professional services, and goods and other services work.

Source: BBC availability analysis.

4. Potential DBEs. As part of the Federal DBE Program, every three years, ODOT is required to set overall aspirational percentage goals for DBE participation in its FHWA- and FTA-funded work, which the agency must work towards achieving each year through various efforts. The first step in doing so is to develop *base figures* for its overall DBE goals based on demonstrable evidence of the availability of *potential DBEs*—POC- and woman-owned businesses that are DBE-certified or appear that they could be DBE-certified based on revenue requirements described in 49 Code of Federal Regulations Part 26—to participate in that work.

To help ODOT develop base figures for its next overall DBE goals, BBC estimated the availability of potential DBEs for ODOT’s and subrecipient local agencies’ FHWA- and FTA-funded work. Figure 3-6 presents estimates of the availability of potential DBEs for FHWA- and FTA-funded contracts and procurements. Those results indicate that the availability of potential DBEs for ODOT’s and subrecipient local agencies’ FHWA-funded work is 20.2 percent, and their availability of ODOT’s and subrecipient local agencies’ FTA-funded work is 19.7 percent. ODOT should consider that information as it determines base figures for its next overall DBE goals for its FHWA-funded and FTA-funded work.

Figure 3-6.
Availability of potential
DBEs for FHWA- and FTA-
funded work

Note:

Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.

For more detail, see Figures C-7 and C-16 in Appendix C.

Source:

BBC availability analysis.

Business group	Funding source	
	FHWA	FTA
All POC- and woman-owned	20.2 %	19.7 %
White woman-owned	9.9 %	9.6 %
POC-owned	10.3 %	10.1 %
Asian Pacific American-owned	0.6 %	3.1 %
Black American-owned	5.1 %	6.5 %
Hispanic American-owned	0.3 %	0.3 %
Native American-owned	3.6 %	0.0 %
Subcontinent Asian American-owned	0.8 %	0.1 %

CHAPTER 4.

Overall DBE Goal

As part of its implementation of the Federal Disadvantaged Business Enterprise (DBE) Program, the Ohio Department of Transportation (ODOT) is required to set overall goals for DBE participation in its Federal Highway Administration- (FHWA-) and Federal Transit Administration- (FTA-) funded work. Chapter 4 provides information ODOT might consider in setting its next overall DBE goals. It is organized in two parts based on the two-step goal-setting process the United States Department of Transportation (USDOT) outlines in 49 Code of Federal Regulations (CFR) Part 26.45:

- A. Establishing a base figure; and
- B. Considering a step 2 adjustment.

A. Establishing a Base Figure

Establishing a base figure is the first step in calculating overall goals for DBE participation in ODOT's FHWA- and FTA-funded work. In accordance with USDOT requirements, ODOT's base figures must reflect demonstrable evidence of the availability of DBEs to participate in the agency's FHWA- and FTA-funded projects. BBC Research & Consulting (BBC) calculated base figures for ODOT's next overall DBE goals using the same availability approach described in Chapter 3 except the calculations only included *potential DBEs*—that is, person of color (POC)- and woman-owned businesses that are DBE-certified or appear they could be DBE-certified based on revenue and employee requirements described in 49 CFR Part 26—and only included FHWA- and FTA-funded prime contracts and subcontracts ODOT and local agencies awarded during the study period. BBC's approach to calculating the base figures is consistent with USDOT's "Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program" and other guidance.

Figure 4-1 presents BBC's base figure calculations by relevant racial/ethnic and gender group for MDT's FHWA- and FTA-funded work. As shown in Figure 4-1, the availability of all potential DBEs considered together is 20.2 percent for ODOT's FHWA-funded contracts and procurements and 19.7 percent for its FTA-funded contracts and procurements. ODOT might consider those values as its base figures for its next overall DBE goals if it anticipates that the types and sizes of the FHWA- and FTA-funded contracts and procurements it award in the future will be similar to the types of work it awarded during the study period.

Figure 4-1.
Base figure calculations for ODOT's
FHWA- and FTA-funded work

Note:
 Numbers rounded to nearest tenth of 1 percent
 and thus may not sum exactly to totals.
 For more detail, see Figures C-7 and C-16 in Appendix
 C.
 Source:
 BBC availability analysis.

Business group	Funding	
	FHWA	FTA
All minority- and woman-owned	20.2 %	19.7 %
White woman-owned	9.9 %	9.6 %
Asian Pacific American-owned	0.6 %	3.1 %
Black American-owned	5.1 %	6.5 %
Hispanic American-owned	0.3 %	0.3 %
Native American-owned	3.6 %	0.0 %
Subcontinent Asian American-owned	0.81 %	0.1 %

B. Considering a Step 2 Adjustment

The Federal DBE Program requires agencies to consider potential *step 2 adjustments* to their base figures as part of determining their overall DBE goals to ensure their goals are precise and appropriately reflect current conditions in the relevant geographic market area for POCs, women, and POC- and woman-owned businesses. Agencies are not required to make step 2 adjustments to their base figures, but they are required to consider appropriate factors and explain their decision as part of their goal submissions to USDOT offices.

USDOT sets forth several factors agencies should consider when assessing whether to make step 2 adjustments to their base figures:

- Current capacity of DBEs to perform work;
- Information related to employment, self-employment, education, training, and unions;
- Any disparities in the ability of DBEs to get financing, bonding, and insurance; and
- Other relevant data.¹

BBC did not assess information about current conditions in the Ohio marketplace for POCs, women, and POC- and woman-owned businesses as part of the availability study. However, ODOT should examine data to which it has access to assess whether barriers might exist in Ohio that potentially reduce the availability of POC- and woman-owned businesses for its FHWA- and FTA-funded work and that make it more difficult for those businesses to successfully complete for that work. For example, extensive analyses BBC conducted as part of the 2016 ODOT Disparity Study indicate barriers POCs, women, and POC-owned businesses face in terms of accessing human capital, accessing financial capital, owning relevant businesses, and achieving business success, all of which could impact outcomes for POC- and woman-owned businesses in ODOT's contracting and procurement processes. ODOT should review that and similar information to determine whether step 2 adjustments to its base figures are warranted.

One factor relevant to potential step 2 adjustments that BBC did analyze as part of the availability study is the current capacity of DBEs to perform ODOT's FHWA- and FTA-funded

¹ 49 CFR Section 26.45.

work. USDOT’s “Tips for Goal-Setting” suggests that agencies should examine data on DBE participation in their USDOT-funded contracts in recent years as an indicator of DBEs’ capacity to perform future work for them. USDOT further suggests agencies should choose the median level of annual DBE participation for those years as the measure of past participation:

Your goal setting process will be more accurate if you use the median (instead of the average or mean) of your past participation to make your adjustment because the process of determining the median excludes all outlier (abnormally high or abnormally low) past participation percentages.²

BBC had access to ODOT’s Uniform Reports of DBE Awards/Commitments and Payments, which the agency uses to report DBE participation in its FHWA- and FTA-funded contracts and procurements to USDOT on a semi-annual and annual basis. Figure 4-2 presents past DBE participation in ODOT’s FHWA- and FTA-funded work on an annual basis for federal fiscal years (FFYs) 2018 through 2021 according to those reports.

a. FHWA. As shown in Figure 4-2, median DBE participation in ODOT’s FHWA-funded work in FFYs 2018 through 2021 was 11.3 percent, which is lower than the agency’s potential base figure for its next FHWA goal. If ODOT were to adjust its base figure for the current capacity of DBEs to perform its FHWA-funded work, USDOT’s “Tips for Goals Setting” suggests that ODOT should take the average of the 20.2 percent base figure for its FHWA-funded work and the 11.5 percent median past DBE participation in that work, yielding a potential overall DBE goal of 15.7 percent.

b. FTA. Also shown in Figure 4-2, median DBE participation in ODOT’s FTA-funded work in FFYs 2018 through 2021 was 7.2 percent, which is lower than the agency’s potential base figure for its next FTA goal. If ODOT were to adjust its base figure for the current capacity of DBEs to perform its FTA-funded work using USDOT’s suggested approach, then it would take the average of the 19.7 percent base figure for its FTA-funded work and the 7.2 percent median past DBE participation in that work, yielding a potential overall DBE goal of 13.5 percent.

Figure 4-2.
DBE participation in ODOT’s FHWA- and FTA-
funded work in FFYs 2018 through 2021

Source:
 ODOT’s Uniform Reports of DBE Awards/Commitments and Payments.

Federal fiscal year	Funding	
	FHWA	FTA
2019	11.3%	8.6%
2020	11.2%	7.2%
2021	13.2%	5.5%

² Section III (A)(5)(c) in USDOT’s “Tips for Goal-Setting in the Federal Disadvantaged Enterprise (DBE) Program.”
<http://www.osdbu.dot.gov/DBEProgram/tips.cfm>

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APPENDIX A.

Definitions of Terms

Appendix A defines terms useful to understanding the 2022 Ohio Department of Transportation Availability Study report.

49 Code of Federal Regulations (CFR) Part 26

49 CFR Part 26 are the federal regulations that set forth the Federal Disadvantaged Business Enterprise Program. The objectives of 49 CFR Part 26 are to:

- Ensure nondiscrimination in the award and administration of United States Department of Transportation-funded work;
- Help remove barriers to the participation of Disadvantaged Business Enterprises in United States Department of Transportation-funded work;
- Promote the use of Disadvantaged Business Enterprises in United States Department of Transportation-funded work;
- Create a level playing field on which Disadvantaged Business Enterprises can compete fairly for United States Department of Transportation-funded work;
- Assist in the development of businesses so they can compete outside the Federal Disadvantaged Business Enterprise Program;
- Ensure the Federal Disadvantaged Business Enterprise Program is narrowly tailored in accordance with applicable law;
- Ensure only businesses that fully meet eligibility standards are permitted to participate as Disadvantaged Business Enterprises; and
- Provide appropriate flexibility to agencies implementing the Federal Disadvantaged Business Enterprise Program.

Base Figure

In accordance with United States Department of Transportation requirements, establishing a base figure is the first step agencies must take in calculating overall Disadvantaged Business Enterprise goals. Agencies must base calculations of their base figures on demonstrable evidence of the availability of potential Disadvantaged Business Enterprises to participate in their United States Department of Transportation-funded projects. That evidence often comes from an *availability analysis*.

Business

A business is a for-profit enterprise, including sole proprietorships, corporations, professional corporations, limited liability companies, limited partnerships, limited liability partnerships, and any other partnerships. The definition includes the headquarters of the business as well as all its other locations, as applicable.

Business Listing

A business listing is a record in a database of business information. A single business can have multiple listings (e.g., when a single business has multiple locations listed separately).

Contract

A contract is a legally binding relationship between the seller of goods or services and a buyer. The study team uses the term *contract* interchangeably with *procurement*.

Contract Element

A contract element is either a prime contract or subcontract.

Control

Control means exercising management and executive authority of a business.

Custom Census Availability Analysis

A custom census availability analysis is one in which researchers attempt surveys with relevant businesses working in an organization's relevant geographic market area to collect information about their characteristics. Researchers then take survey information about those businesses and match them to the characteristics of prime contracts and subcontracts an agency actually awarded during the study period to estimate the percentage of dollars one might expect the agency to award to a specific group of businesses based on their characteristics and the characteristics of the agency's contracts and procurements. A custom census approach is accepted in the industry as the preferred method for conducting availability analyses.

Disadvantaged Business Enterprise (DBE)

A DBE is a business certified as owned and controlled by one or more individuals who are socially and economically disadvantaged according to 49 CFR Part 26. The following groups are presumed to be socially and economically disadvantaged according to the Federal DBE Program:

- Asian Pacific Americans;
- Black Americans;
- Hispanic Americans;
- Native Americans;
- Subcontinent Asian Americans; and
- Women of any race or ethnicity.

A determination of economic disadvantage includes assessing businesses' gross revenues and personal net worth. Some businesses do not qualify as DBEs because of gross revenue or net worth requirements. Businesses owned by white men can also be certified as DBEs if those businesses meet the economic requirements set forth in 49 CFR Part 26 and demonstrate social or economic disadvantage.

Dun & Bradstreet (D&B)

D&B is the leading global provider of lists of business establishments and other business information for specific industries within specific geographical areas (for details, see www.dnb.com).

Federal DBE Program

The Federal DBE Program was established by the United States Department of Transportation after enactment of the Transportation Equity Act for the 21st Century as amended in 1998. It is designed to increase the participation of people of color- and woman-owned businesses in United States Department of Transportation-funded contracts. Regulations for the Federal DBE Program are set forth in 49 CFR Part 26.

Federal Highway Administration (FHWA)

FHWA is an office of the United States Department of Transportation that works with state and local governments to construct, preserve, and improve the National Highway System, other roads eligible for federal aid, and certain roads on federal and tribal lands.

Federal Transit Administration (FTA)

FTA is an office of the United States Department of Transportation that provides financial and technical assistance to local public transportation systems.

FHWA-funded Contract

An FHWA-funded contract or procurement is any contract, procurement, or project funded in whole or in part with FHWA financial assistance, including loans. The study team considered a contract or procurement to be FHWA-funded if it included at least \$1 of FHWA funding.

Firm

See *business*.

FTA-funded Contract

An FTA-funded contract or procurement is any contract, procurement, or project funded in whole or in part with FTA financial assistance, including loans. The study team considered a contract or procurement to be FTA-funded if it included at least \$1 of FTA funding.

Industry

An industry is a broad classification for businesses providing related goods or services (e.g., *construction* or *professional services*).

Local Marketplace

See *relevant geographic market area*.

Overall DBE Goal

As part of the Federal DBE Program, every three years, agencies are required to set overall aspirational percentage goals for DBE participation in their United States-funded contracts and procurements, which they must work towards achieving each year through various efforts. If DBE participation in their United States Department of Transportation-work is less than their overall DBE goals in a particular year, then they must analyze the reasons for any shortfalls and establish specific measures that will enable them to meet the goal in the next year. The United States Department of Transportation sets forth a two-step process agencies must use in establishing their overall DBE goals. First, agencies must develop *base figures* for their overall DBE goals. Second, agencies must consider whether step 2 adjustments are necessary to their base figures to ensure their overall DBE goals are as precise as possible.

Person of Color (POC)

A person of color is an individual who identifies with one of the following racial/ethnic groups: Asian Pacific Americans, Black Americans, Hispanic American, Native Americans, Subcontinent Asian Americans, or other non-white racial or ethnic groups.

POC-owned Business

A POC-owned business is a business with at least 51 percent ownership and control by one or more individuals who identify with one of the following racial/ethnic groups: Asian Pacific Americans, Black Americans, Hispanic Americans, Native Americans, Subcontinent Asian Americans, or other non-white racial or ethnic groups. The study team considered businesses owned by men of color and women of color as POC-owned businesses.

Prime Consultant

A prime consultant is a business that performs professional services prime contracts directly for end users, such as ODOT.

Prime Contract

A prime contract is a contract between a prime contractor, or prime consultant, and an end user, such as ODOT.

Prime Contractor

A prime contractor is a construction business that performs prime contracts directly for end users, such as ODOT.

Procurement

See *contract*.

Project

A project refers to a construction, professional services, or goods and other services endeavor ODOT or subrecipient local agencies bid out during the study period. A project could include one or more prime contracts and corresponding subcontracts.

Relevant Geographic Market Area (RGMA)

The RGMA is the geographic area in which the businesses to which organizations award most of their contracting and procurement dollars are located. The RGMA is also referred to as the local marketplace. Case law related to contracting programs and availability studies requires analyses to focus on the RGMA. The study team identified the RGMA for ODOT's United States Department of Transportation-funded contracting and procurement activities as the entire state of Ohio.

Statistically Significant Difference

A statistically significant difference refers to a quantitative difference for which there is a 0.95 or 0.90 probability that chance can be correctly rejected as an explanation for the difference (meaning that there is a 0.05 or 0.10 probability, respectively, that chance in the sampling process could correctly account for the difference).

Step 2 Adjustment

In accordance with United States Department of Transportation requirements, in setting their overall DBE goals, agencies must consider conditions in the local marketplace for POC- and woman-owned businesses as well as other factors and determine whether upward or downward adjustments to their base figures are necessary to ensure their overall DBE goals are as precise as possible. The United States Department sets forth several factors agencies must consider when assessing whether to make step 2 adjustments to their base figure:

- Current capacity of DBEs to perform work;
- Information related to employment, self-employment, education, training, and unions;
- Any disparities in the ability of DBEs to get financing, bonding, and insurance; and
- Other relevant data.

Agencies are not required to make step 2 adjustments to their base figures, but they are required to consider various relevant factors and explain their decisions to the United States Department of Transportation as part of the goal-setting process.

Study Period

The study period is the time period on which the study team focused for the availability study. ODOT and subrecipient agencies had to have awarded a contract or procurement during the study period for it to be included in the study team's analyses. The study period for the availability study was July 1, 2018 and June 30, 2021.

Subcontract

A subcontract is a contract between a prime contractor or prime consultant and another business selling goods or services to the prime contractor or prime consultant as part of a larger contract.

Subrecipient Local Agency

A subrecipient local agency is an Ohio agency that receives passthrough United States Department of Transportation funds from ODOT via grants or other means for local transportation projects. Subrecipient local agencies that receive passthrough funds must comply with ODOT's implementation of the Federal DBE Program when awarding associated contracts and procurements.

Subcontractor

A subcontractor is a business that performs services for prime contractors as part of larger contracts.

Subindustry

A subindustry is a specific classification for businesses providing related goods or services within a particular industry (e.g., *highway and street construction* is a subindustry of *construction*).

United States Department of Transportation (USDOT)

USDOT is one of the executive departments of the United States federal government and comprises 13 offices, including FHWA and FTA. It is responsible for developing and coordinating policies to provide an efficient and economical national transportation system. USDOT operates the Federal DBE Program.

Vendor

A vendor is a business that sells goods and services either to a prime contractor or prime consultant or to an end user, such as ODOT.

Woman-owned Business

A woman-owned business is a business with at least 51 percent ownership and control by individuals who identify as non-Hispanic white women. (The study team considered businesses owned by women of color as POC-owned businesses.)

APPENDIX B.

Availability Analysis Approach

BBC Research & Consulting (BBC) used a *custom census* approach to analyze the availability of Ohio businesses for the Federal Highway Administration- (FHWA-) and Federal Transit Administration (FTA-) funded construction, professional services, and goods and other services prime contracts and subcontracts the Ohio Department of Transportation (ODOT) and subrecipient local agencies award.¹ Appendix B expands on the information presented in Chapter 3 to further describe:

- A. Availability data;
- B. Representative businesses;
- C. Availability survey instrument;
- D. Survey execution; and
- E. Additional considerations.

A. Availability data

BBC partnered with Davis Research to conduct telephone and online surveys with thousands of business establishments throughout ODOT's *relevant geographic market area* (RGMA), which we identified as the state of Ohio. Business establishments Davis Research surveyed were businesses with locations in the RGMA that BBC identified as doing work in fields closely related to the types of FHWA- and FTA-funded projects ODOT and subrecipient local agencies awarded between July 1, 2018 and June 30, 2021 (i.e., *the study period*). BBC began the survey process by determining the work specializations, or *subindustries*, relevant to each prime contract and subcontract and identifying 8-digit Dun & Bradstreet (D&B) work specialization codes that best corresponded to those subindustries. We then compiled information about local business establishments that D&B listed as having their primary lines of business within those work specializations into a *phone book*.

The study team contacted all the businesses listed in the phone book—often multiple times—to ask them to participate in an extensive *availability survey* we designed to collect information about their specific characteristics. That information allowed us to assess their potential availability for the FHWA- and FTA-funded contracts and procurements ODOT and subrecipient local agencies award. As part of the survey effort, the study team attempted to contact 17,342 Ohio businesses that perform work relevant to ODOT's and subrecipient local agencies' FHWA-

¹ Goods and other services contracts and procurements accounted for only 0.2 percent of ODOT's and subrecipient local agencies' FHWA-funded work during the study period. Consequently, BBC included goods and other services contracts and procurements in analyses related to FTA-funded work but not in analyses related to FHWA-funded work.

and FTA-funded work. We were able to successfully contact 2,949 of those business establishments, 2,637 of which completed availability surveys.

B. Representative Businesses

The objective of BBC's availability approach was not to collect information about each and every business operating in the RGMA. Instead, it was to collect information from a large, unbiased subset of relevant Ohio businesses that appropriately represents the entire relevant business population. That approach allowed BBC to estimate the availability of person of color- (POC-) and woman-owned businesses in an accurate, statistically-valid manner. In addition, we did not design the research effort so that the study team would contact every local business possibly performing relevant construction, professional services, and goods and other services work. Instead, we identified the types of work most relevant to ODOT's and subrecipient local agencies' FHWA- and FTA- work and focused the availability analysis on those work specializations. Figure B-1 lists 8-digit work specialization codes within construction, professional services, and goods and other services most related to the FHWA- and FTA-funded work ODOT and subrecipient local agencies awarded during the study period, on which we focused in the availability analysis. BBC grouped those specializations into distinct subindustries, which are presented as headings in Figure B-1.

C. Availability Survey Instrument

BBC created an availability survey instrument to collect detailed information from each business that participated in the survey process. As an example, the survey instrument the study team used with construction establishments is presented at the end of Appendix B. We modified the construction survey instrument slightly for use with establishments working in professional services to reflect terms more commonly used in those industries (e.g., substitution the words "prime contractor" and "subcontractor" with "prime consultant" and "subconsultant").²

1. Survey structure. The availability survey included 13 sections, and Davis Research attempted to cover all sections with each business establishment it successfully contacted.

a. Identification of purpose. The surveys began by identifying ODOT as the survey sponsor and describing the purpose of the study. (For example, "ODOT is developing a list of companies interested in construction, maintenance, or design on a wide range of highway and other transportation-related projects.")

b. Verification of correct business name. The surveyor verified he or she had reached the correct business. If the business was not correct, surveyors asked if the respondent knew how to contact the correct business. Davis Research then followed up with the correct business based on the new contact information (see areas "X" and "Y" of the availability survey instrument).

² BBC also developed email versions of the survey instrument for business establishments that preferred to complete the survey in those formats.

Figure B-1.
Subindustries and work specializations included in the availability analysis

Industry Code	Industry Description	Industry Code	Industry Description
Construction		Highway, street, and bridge construction (continued)	
Concrete work		Highway, street, and bridge construction (continued)	
16110206	Sidewalk construction	16119901	General contractor, highway and street constructio
17410100	Foundation and retaining wall construction	16119902	Highway and street maintenance
17710000	Concrete work	16220000	Bridge, tunnel, and elevated highway construction
17710200	Curb and sidewalk contractors	16229901	Bridge construction
17710201	Curb construction	17710301	Blacktop (asphalt) work
17710202	Sidewalk contractor	17910000	Structural steel erection
17959901	Concrete Breaking For Streets and Highways		
Concrete, asphalt, sand, and gravel products		Landscape services	
29110501	Asphalt or asphaltic materials, made in refineries	07829902	Highway lawn and garden maintenance services
29510000	Asphalt paving mixtures and blocks	07829903	Landscape contractors
32720303	Concrete products, precast, nec		
32730000	Ready-mixed concrete	Painting, striping, and marking	
Electrical work		17210200	Commercial painting
17310000	Electrical work	17210300	Industrial painting
17319904	Lighting contractor	17210302	Bridge painting
		17210303	Pavement marking contractor
Excavation, drilling, wrecking, and demolition		Rebar and reinforcing steel	
17940000	Excavation work	33120405	Structural shapes and pilings, steel
		34410200	Fabricated structural metal for bridges
Fencing, guardrails, barriers, and signs		50510201	Bearing piles, iron or steel
16110100	Highway signs and guardrails	50510205	Concrete reinforcing bars
16110101	Guardrail construction, highways	50510216	Steel
16110102	Highway and street sign installation	50510217	Structural shapes, iron or steel
17999912	Fence construction	Traffic control and safety	
34449905	Guard rails, highway: sheet metal	32310302	Reflector glass beads, for highway signs or refle
50399914	Metal guardrails	36690200	Transportation signaling devices
Highway, street, and bridge construction		36690201	Highway signals, electric
16110000	Highway and street construction	36690203	Pedestrian traffic control equipment
16110200	Surfacing and paving	50990304	Reflective road markers
16110202	Concrete construction: roads, highways, sidewalks,	73599912	Work zone traffic equipment (flags, cones, barrels
16110204	Highway and street paving contractor	73899921	Flagging service (traffic control)
16110205	Resurfacing contractor		

Figure B-1.
Subindustries and work specializations included in the availability analysis (continued)

Industry Code	Industry Description	Industry Code	Industry Description
Construction (continued)		Water, sewer, and utility lines (continued)	
Trucking, hauling and storage		Water, sewer, and utility lines (continued)	
42129905	Dump truck haulage	16239906	Underground utilities contractor
42139903	Contract haulers	16290105	Drainage system construction
Water, sewer, and utility lines		17999906	Core drilling and cutting
16230000	Water, sewer, and utility lines	Other construction materials	
16230300	Water and sewer line construction	36480100	Outdoor lighting equipment
16230302	Sewer line construction	36480110	Street lighting fixtures
16230303	Water main construction	36690206	Traffic signals, electric
16239901	Electric power line construction		
Professional services		Other professional services	
Construction management		Surveying and mapmaking	
87419902	Construction management	73890801	Mapmaking or drafting, including aerial
87420402	Construction project management consultant	87130000	Surveying services
Engineering		Testing and inspection	
87110400	Construction and civil engineering	07119906	Soil testing services
87110402	Civil engineering	73890200	Inspection and testing services
87110404	Structural engineering	73890210	Safety inspection service
87119909	Professional engineer	Transportation planning services	
87120101	Architectural engineering	87420410	Transportation consultant
Environmental services		87480200	Urban planning and consulting services
87489905	Environmental consultant	87480201	City planning
89990701	Geological consultant	87480204	Traffic consultant
IT and data services		Other professional services	
73730200	Systems integration services	73190100	Transit advertising services
73780000	Computer maintenance and repair	87430000	Public relations services
73790100	Computer related maintenance services		

Figure B-1.
Subindustries and work specializations included in the availability analysis (continued)

Industry Code	Industry Description	Industry Code	Industry Description
Goods and other services			
Automobiles		Transit services	
35370000	Industrial trucks and tractors	41110000	Local and suburban transit
37110202	Truck tractors for highway use, assembly of	41110100	Bus transportation
50120206	Truck bodies	41110101	Bus line operations
50120207	Truck tractors	41119900	Local and suburban transit, nec
50120208	Trucks, commercial	41310000	Intercity and rural bus transportation
50840606	Tractors, industrial	41319901	Intercity bus line
50840608	Trucks, industrial	41410000	Local bus charter service
55119902	Pickups, new and used	41420000	Bus charter service, except local
55219904	Trucks, tractors, and trailers: used		
Cleaning and janitorial services		Vehicle parts and supplies	
73490100	Building and office cleaning services	50130119	Truck parts and accessories
73499902	Cleaning service, industrial or commercial	55310107	Truck equipment and parts
87440000	Facilities support services		
Industrial chemicals		Vehicle repair services	
28190912	Magnesium compounds or salts, inorganic	75349901	Rebuilding and retreading tires
28999912	Deicing or defrosting fluid	75490100	Automotive maintenance services
28999943	Salt		
51691100	Industrial salts and polishes	Surveying and mapmaking	
51691101	Calcium chloride	42129906	Garbage collection and transport, no disposal
51691106	Salts, industrial	49530200	Refuse collection and disposal services
Petroleum and petroleum products		Surveying and mapmaking	
28690400	Fuels	50849912	Safety equipment
29920000	Lubricating oils and greases	59990103	Safety supplies and equipment
29920100	Lubricating oils		
51720200	Engine fuels and oils		
51720202	Diesel fuel		
51720203	Gasoline		

c. Verification of for-profit business status. The surveyor asked whether the organization was a for-profit business as opposed to a government or nonprofit organization (Question A2). Surveyors continued the survey with businesses that responded “yes” to that question.

d. Confirmation of main lines of business. Businesses confirmed their main lines of business according to D&B (Question A3a). If D&B’s work specialization codes were incorrect, businesses described their main lines of business (Questions A3b). Businesses were also asked to identify the other types of work they perform beyond their main lines of business (Question A3c). BBC coded information on main lines of business and additional types of work into appropriate 8-digit D&B work specialization codes.

e. Locations and affiliations. The surveyor asked business owners or managers if their businesses had other locations (Question A4), where they were headquartered (Questions A5 and A6), and if they were subsidiaries or affiliates of other businesses (Questions A7 and A8).

f. Past bids or work with government agencies and private sector organizations. The surveyor asked about bids and work on past prime contracts and subcontracts (Questions B1 and B2).

g. Interest in future work. The surveyor asked businesses about their interest in future prime contract and subcontract work with ODOT and other government agencies. (Questions B3 and B4).

h. Geographic area. The surveyor asked businesses where they perform work or serve customers in Ohio (Questions C1a through C1e).

i. Largest contracts. The surveyor asked businesses about the value of the largest contracts on which they are able to perform (Question D1).

j. Ownership. The surveyor asked whether businesses were at least 51 percent owned and controlled by POC or women (Questions E1 and E2). If businesses indicated they were POC-owned, they were also asked about the race/ethnicity of the business’s owner (Question E3). The study team confirmed that information through several other data sources, including:

- ODOT certification and ownership lists;
- ODOT and Ohio Transportation and Infrastructure Commission vendor data; and
- Information from other available certification directories and business lists.

k. Business revenue. The surveyor asked questions about businesses’ size in terms of their revenues and number of employees. For businesses with multiple locations, the business revenue section of the survey also included questions about their revenues and number of employees across all locations (Questions F1 through F4).

l. Potential barriers in the marketplace. The surveyor asked an open-ended question concerning working with ODOT and other Ohio government agencies and general insights about conditions in the marketplace (Question G1a and G1b).

m. Contact information. The survey concluded with questions about the participant's name and position with the organization (Questions H1 and H2).

D. Survey Execution

Davis Research conducted all availability surveys in 2022. The firm made multiple attempts during different times of the day and on different days of the week to successfully reach each business establishment. The firm attempted to survey the owner, manager, or other officer of each business establishment who could provide accurate responses to survey questions.

1. Establishments the study team successfully contacted. Figure B-2 presents the disposition of the 17,342 business establishments the study team attempted to contact for availability surveys and how that number resulted in the 2,949 establishments the study team was able to successfully contact.

a. Non-working or wrong phone numbers. Some of the business listings BBC purchased from D&B and Davis Research attempted to contact were:

- Duplicate phone numbers (92 listings);
- Non-working phone numbers (2,891 listings); or
- Wrong numbers for the desired businesses (1,063 listings).

Some non-working phone numbers and wrong numbers resulted from businesses going out of business or changing their names and phone numbers between the time D&B listed them and the time the study team attempted to contact them.

b. Working phone numbers. As shown in Figure B-2, there were 13,296 business establishments with working phone numbers Davis Research attempted to contact. They were unsuccessful in contacting many of those businesses for various reasons:

- The firm could not reach anyone after multiple attempts at different times of the day and on different days of the week for 8,781 establishments.
- The firm could not reach a responsible staff member after multiple attempts at different times of the day on different days of the week for 1,546 establishments.
- The firm could not conduct the availability survey due to language barriers for 20 businesses.

Thus, Davis Research was able to successfully contact 2,949 business establishments.

Figure B-2.
Disposition of business establishments the study team attempted to contact for availability surveys

Source:
BBC availability analysis.

	Number of Establishments
Beginning list	17,342
Less duplicate phone numbers	92
Less non-working phone numbers	2,891
Less wrong number/business	1,063
Unique business listings with working phone numbers	13,296
Less no answer	8,781
Less could not reach responsible staff member	1,546
Less language barrier	20
Establishments successfully contacted	2,949

2. Establishments included in the availability database. Figure B-3 presents the disposition of the 2,949 business establishments Davis Research successfully contacted and how that number resulted in the businesses BBC included in the *availability database* and considered potentially available for ODOT work.

Figure B-3.
Disposition of businesses the study team successfully contacted for availability surveys

Source:
BBC availability analysis.

	Number of Establishments
Establishments successfully contacted	2,949
Less establishments not interested in discussing availability for work	181
Less unreturned fax/online surveys	131
Establishments that completed surveys	2,637
Less not involved in relevant contracting work	497
Less not a for-profit business	48
Less line of work outside of study scope	26
Less no interest in future work	310
Less multiple establishments	86
Establishments potentially available for entity work	1,670

a. Establishments not interested in discussing availability for ODOT work. Of the 2,949 business establishments the study team successfully contacted, 181 establishments were not interested in discussing their availability for ODOT work. In addition, BBC sent e-mail availability surveys to businesses upon request but did not receive completed surveys from 131 establishments. In total, 2,637 successfully contacted business establishments completed availability surveys.

b. Establishments available for ODOT work. BBC deemed only a portion of the business establishments that completed availability surveys as available for the FHWA- and FTA-funded prime contracts and subcontracts ODOT and subrecipient local agencies awarded during the study period. We excluded many of the business establishments that completed surveys from the availability database for various reasons:

- BBC excluded 497 establishments that indicated their businesses were not involved in relevant contracting work.

- BBC excluded 48 establishments that indicated they were not for-profit organizations.
- BBC excluded 26 establishments that reported that their main lines of business were outside of the study scope.
- BBC excluded 310 establishments that reported they were not interested in contracting opportunities with ODOT or other government organizations.
- 86 establishments represented different locations of the same businesses. Prior to analyzing results, BBC combined responses from multiple locations of the same business into a single data record.

After those exclusions, BBC compiled a database of 1,670 businesses that were considered potentially available for relevant ODOT and subrecipient local agency work.

c. Coding responses from multi-location businesses. Responses from different locations of the same business were combined into a single summary data record according to several rules:

- If any of the establishments reported bidding or working on a contract within a particular subindustry, BBC considered the business to have bid or worked on a contract in that subindustry.
- BBC combined the different roles of work (i.e., prime contractor or subcontractor) establishments of the same business reported into a single response corresponding to the appropriate subindustry. For example, if one establishment reported that it works as a prime contractor and another establishment reported that it works as a subcontractor, then BBC considered the business as potentially available for both prime contracts and subcontracts within its relevant subindustry.
- BBC considered the largest contract or procurement any establishments of the same business reported having the ability to perform as the business's capacity (i.e., the largest contract or procurement for which the business could be considered available).
- BBC coded businesses as POC- or woman-owned if the majority of its establishments reported such status.

E. Additional Considerations

BBC made additional considerations related to its approach to measuring availability to ensure estimates of the availability of businesses for ODOT's and subrecipient local agencies' FHWA- and FTA-funded work were accurate and appropriate.

1. Providing representative estimates of business availability. The purpose of the availability analysis was to provide precise estimates of the percentage of ODOT's and subrecipient local agency's relevant contract and procurement dollars for which POC- and woman-owned businesses are ready, willing, and able to perform. The availability analysis did not provide a comprehensive listing of every business that could be available for that work and should not be used in that way.

2. Using a custom census approach to measuring availability. United States

Department of Transportation guidance around measuring availability recommends dividing the number of POC- and woman-owned businesses in an organization's certification directory by the total number of businesses in the marketplace (for example, as reported in United States Census data). Another suggested option is for organizations to use lists of prequalified businesses or bidders lists to estimate the availability of POC- and woman-owned businesses for their relevant prime contracts and subcontracts. The primary reason why BBC rejected such approaches when measuring the availability of businesses for ODOT's and subrecipient local agencies' work is that such counting methods do not account for business characteristics crucial to estimating availability accurately. The methodology BBC used in this study adds several layers of refinement to a simple counting approach. For example, the availability surveys the study team conducted provided data on qualifications, relative capacity, and interest in ODOT and subrecipient local agency work for each business, which allowed BBC to estimate availability more precisely.

3. Selection of specific subindustries. Defining subindustries based on specific work specialization codes (e.g., D&B industry codes) is a standard step in analyzing businesses in an economic sector. Government and private sector economic data are typically organized according to such codes. As with any such research, there are limitations when choosing specific D&B work specialization codes to define sets of businesses. For example, some industry codes are imprecise, resulting with overlap among business specializations. Some businesses primary lines of work span several work specializations, even at a very detailed level of specificity. That overlap can make classifying businesses into single main lines of business difficult and imprecise. For those and other reasons, BBC collapsed work specialization codes into broader subindustries to more accurately classify businesses in the availability database.

4. Response reliability. Business owners and managers were asked questions that may be difficult to answer, including questions about their revenues. For that reason, the study team collected corresponding D&B information for their establishments and asked respondents to confirm that information or provide more accurate estimates. Further, respondents were not typically asked to give absolute figures for difficult questions such as revenue and capacity. Rather, they were given ranges of dollar figures and asked to confirm or correct that information. BBC assessed the reliability of survey responses in a number of ways.

a. Certification lists. BBC compared data from the availability surveys to information from other sources such as vendor information we collected from ODOT. For example, certification databases include data on the race/ethnicity and gender of the owners of certified businesses.

b. Contract data. BBC examined ODOT's contract and vendor data to further help confirm the largest prime contracts and subcontracts the agency awarded to businesses that participated in the availability surveys for the purposes of assessing capacity. We compared survey responses about the largest contracts and procurements businesses reported being able to perform contract and procurement data.

c. Agency review. ODOT reviewed contract and vendor the study team collected and compiled from the availability analysis and provided feedback regarding its accuracy.

Availability Survey Instrument [Construction]

A1. SCREENER [BUSINESS RECORDS CODED AS SCREEN-YES ONLY] Hello, does your company do work related to highway, street, or bridge construction?

- 1 = YES – CONTINUE SURVEY, BEGIN AT [INTRO]
- 2 = NO – TERMINATE

(NOTE TO INTERVIEWER: If asked, “My name is [interviewer name] from Davis Research, and I’m calling on behalf of the Ohio Department of Transportation and the Ohio Turnpike and Infrastructure Commission. ODOT and the Turnpike are developing a list of companies interested in construction, maintenance, or design on a wide range of highway and other transportation-related projects. I was calling to determine whether your company does work on or is interested in work related to highway, street, or bridge construction in the state of Ohio.”)

[INTRO] [ALL OTHER BUSINESS RECORDS BEGIN SURVEY HERE] Hello. My name is [interviewer name] from Davis Research. We are calling on behalf of the Ohio Department of Transportation, or ODOT, and the Ohio Turnpike and Infrastructure Commission. This is not a sales call. ODOT and the Turnpike are conducting a survey to develop a list of companies potentially interested in providing construction-related services to government organizations or that have provided such services in the past. The survey should take between 10 and 15 minutes to complete.

Who can I speak with to confirm information about your firm’s characteristics and interest in working with government organizations?

[AFTER REACHING AN APPROPRIATELY SENIOR STAFF MEMBER, THE INTERVIEWER SHOULD RE-INTRODUCE THE PURPOSE OF THE SURVEY AND BEGIN WITH QUESTIONS]

[IF ASKED, THE INFORMATION DEVELOPED IN THESE SURVEYS WILL ADD TO EXISTING DATA ON COMPANIES INTERESTED IN WORKING WITH GOVERNMENT ORGANIZATIONS OR THAT HAVE DONE SO IN THE PAST]

X1. I have a few basic questions about your company and the type of work you do. Can you confirm this is [firm name]?

- 1=RIGHT COMPANY – SKIP TO A2
- 2=NOT RIGHT COMPANY
- 99=REFUSE TO GIVE INFORMATION – TERMINATE

Y1. What is the name of this company?

- 1=VERBATIM

Y2. Is [new firm name] associated with [old firm name] in any way?

1=Yes, same owner doing business under a different name – **SKIP TO A2**

2=Yes, can give information about named company

3=Company bought/sold/changed ownership

98=No, does not have information – **TERMINATE**

99=Refused to give information – **TERMINATE**

Y3. Can you give me the address for [new firm name]?

[NOTE TO INTERVIEWER - RECORD IN THE FOLLOWING FORMAT]:

. STREET ADDRESS

. CITY

. STATE

. ZIP

1=VERBATIM

A2. Let me confirm [firm name/new firm name] is a for-profit business, as opposed to a non-profit organization, a foundation, or government office. Is that correct?

1=Yes, a for-profit business

2=No, other – **TERMINATE**

A3a. Let me also confirm what kind of business this is. The information we have from Dun & Bradstreet indicates your main line of business is [SIC Code description]. Is that correct?

[NOTE TO INTERVIEWER – IF ASKED, DUN & BRADSTREET OR D&B, IS A COMPANY THAT COMPILES INFORMATION ON BUSINESSES THROUGHOUT THE COUNTRY]

1=Yes – **SKIP TO A3c**

2=No

98=(DON'T KNOW)

99=(REFUSED)

A3b. What would you say is the main line of business at [firm name/new firm name]?

[NOTE TO INTERVIEWER – IF RESPONDENT INDICATES FIRM'S MAIN LINE OF BUSINESS IS "GENERAL CONSTRUCTION" OR GENERAL CONTRACTOR," PROBE TO FIND OUT MORE INFORMATION.]

1=VERBATIM

A3c. What other types of work, if any, does your business perform?

[ENTER VERBATIM RESPONSE]

1=VERBATIM

97=(NONE)

A4. Is this the sole location for your business, or do you have offices in other locations?

1=Sole location – **SKIP TO A7**

2=Have other locations

98=(DON'T KNOW)

99=(REFUSED)

A5. Is this location the headquarters for your business, or is your business headquartered at another location?

1=Headquartered here – **SKIP TO A7**

2=Headquartered at another location

98=(DON'T KNOW)

99=(REFUSED)

A6. What is the city and state of your business' headquarters?

(ENTER VERBATIM CITY, ST)

1=VERBATIM

A7. Is your company a subsidiary or affiliate of another firm?

1=Independent – **SKIP TO B1**

2=Subsidiary or affiliate of another firm

98=(DON'T KNOW) – **SKIP TO B1**

99=(REFUSED) – **SKIP TO B1**

A8. What is the name of your parent company?

1=VERBATIM

98=(DON'T KNOW)

99=(REFUSED)

B1. Next, I have a few questions about your company's role in doing work or providing materials related to construction, maintenance, or design. During the past five years, has your company submitted a bid or received an award—in either the public or private sector—for any part of a contract as either a prime contractor or subcontractor?

[NOTE TO INTERVIEWER – THIS INCLUDES PUBLIC AND PRIVATE SECTOR WORK]

1=Yes

2=No – **SKIP TO B3**

98=(DON'T KNOW) – **SKIP TO B3**

99=(REFUSED) – **SKIP TO B3**

B2. Were those bids or awards to work as a prime contractor, a subcontractor, a trucker/hauler, a supplier, or any other roles?

[MULTIPUNCH]

1=Prime contractor

2=Subcontractor

3=Trucker/hauler

4=Supplier (or manufacturer)

5= Other - SPECIFY _____

98=(DON'T KNOW)

99=(REFUSED)

B3. Please think about future construction, maintenance, or design-related work as you answer the following few questions. Is your company *interested* in working with government/public agencies in Ohio, such as ODOT or the Turnpike, as a prime contractor?

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

B4. Is your company *interested* in working with government/public agencies in Ohio as a subcontractor, trucker/hauler, or supplier?

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1a. Now I want to ask you about the geographic areas your company serves within Ohio.

[C_SW] – IF AT ANY POINT DURING THE “C” QUESTIONS, C1a-C1e, THE RESPONDENT INDICATES THEY WORK STATEWIDE, CODE C_SW=1 AND SKIP TO D1.

Is your company able to do work or serve customers in any part of Toledo or Northwest Ohio, including Lucas, Wood, and Allen counties?

(NOTE TO INTERVIEWER – IF ASKED, NORTHWEST OHIO INCLUDES WILLIAMS, FULTON, LUCAS, OTTAWA, HENRY, WOOD, SANDUSKY, SENECA, DEFIANCE, PAULDING, PUTNAM, HANCOCK, WYANDOT, VAN WERT, ALLEN, AND HARDIN COUNTIES.)

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1b. Is your company able to do work or serve customers in any part of Cleveland or the western half of Northeast Ohio, including Cuyahoga, Lake, Lorain, Medina, Richland, and Wayne counties?

(NOTE TO INTERVIEWER – IF ASKED, THE CLEVELAND AREA AND WESTERN HALF OF NORTHEAST OHIO INCLUDES ERIE, LORAIN, HURON, MEDINA, CRAWFORD, RICHLAND, ASHLAND, WAYNE, CUYAHOGA, LAKE, AND GEAUGA COUNTIES.)

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1c. Is your company able to do work or serve customers in any part of Akron, Canton, Youngstown, or the remainder of Northeast Ohio, extending west from the Pennsylvania border between Ashtabula and Belmont counties through the New Philadelphia-Dover and Akron areas?

(NOTE TO INTERVIEWER – IF ASKED, THE AKRON/CANTON/YOUNGSTOWN AREA AND REMAINDER OF NORTHEAST OHIO INCLUDES ASHTABULA, TRUMBULL, SUMMIT, PORTAGE, MAHONING, STARK, COLUMBIANA, HOLMES, TUSCARAWAS, CARROLL, HARRISON, JEFFERSON, AND BELMONT COUNTIES.)

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1d. Is your company able to do work or serve customers in any part of Cincinnati, Dayton, Hamilton, Middletown, Springfield, or Southwest Ohio, extending south from the Dayton-Springfield-Sidney area through the Cincinnati-Wilmington area and east to Jackson and Lawrence counties?

(NOTE TO INTERVIEWER – IF ASKED, SOUTHWEST OHIO INCLUDES MERCER, AUGLAIZE, LOGAN, SHELBY, DRAKE, MIAMI, CHAMPAIGN, CLARK, MONTGOMERAY, PREBLE, GREENE, BUTLER, WARREN, CLINTON, HAMILTON, CLERMONT, ROSS, HIGHLAND, PIKE, JACKSON, BROWN, ADAMS, SCIOTO, AND LAWRENCE COUNTIES.)

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1e. Is your company able to do work or serve customers in any part of Columbus or Central Ohio, including Franklin, Delaware, Licking, and Fairfield counties, and/or Southeast Ohio, extending to the Ohio River?

(NOTE TO INTERVIEWER – IF ASKED, CENTRAL AND SOUTHEAST OHIO INCLUDES MARION, MORROW, KNOX, COSHOCTON, GUERNSEY, MUSKINGUM, LICKING, FAIRFIELD, PERRY, UNION, DELAWARE, FRANKLIN, MADISON, FAYETTE, PICKAWAY, MONROE, NOBLE, MORGAN, WASHINGTON, ATHENS, HOCKING, VINTON, MEIGS, AND GALLIA COUNTIES.)

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

D1. What is the largest prime contract or subcontract your company is able to perform? This includes contracts in either the public sector or private sector.

[NOTE TO INTERVIEWER - READ CATEGORIES IF NECESSARY]

- | | |
|--|--|
| 1=\$100,000 or less | 9=More than \$20 million to \$50 million |
| 2=More than \$100,000 to \$250,000 | 10=More than \$50 million to \$100 million |
| 3=More than \$250,000 to \$500,000 | 11= More than \$100 million to \$200 million |
| 4=More than \$500,000 to \$1 million | 12=\$200 million or greater |
| 5=More than \$1 million to \$2 million | 97=(NONE) |
| 6=More than \$2 million to \$5 million | 98=(DON'T KNOW) |
| 7=More than \$5 million to \$10 million | 99=(REFUSED) |
| 8=More than \$10 million to \$20 million | |

E1. My next questions are about the ownership of the company. A company is defined as woman-owned if more than half—that is, 51 percent or more—of the ownership and control is by women. By this definition, is *[firm name / new firm name]* a woman-owned business?

- 1=Yes
- 2=No
- 98=(DON'T KNOW)
- 99=(REFUSED)

E2. A company is defined as minority-owned if more than half—that is, 51 percent or more—of the ownership and control is by Asian Pacific American, Black American, Hispanic American, Native American, or Subcontinent Asian American individuals. By this definition, is *[firm name / new firm name]* a minority-owned business?

- 1=Yes
- 2=No – **SKIP TO F1**
- 98=(DON'T KNOW) – **SKIP TO F1**
- 99=(REFUSED) – **SKIP TO F1**

E3. Would you say that the minority group ownership of your company is mostly Asian Pacific American, Black American, Subcontinent Asian American, Hispanic American, or Native American?

1=Black American

2=Asian Pacific American (persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Mariana Islands, Macao, Fiji, Tonga, Kiribati, Tuvalu, Nauru, Federated States of Micronesia, or Hong Kong)

3=Hispanic American (persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race)

4=Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians)

5=Subcontinent Asian American (persons whose Origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka)

6=(OTHER - SPECIFY) _____

98=(DON'T KNOW)

99=(REFUSED)

F1. Dun & Bradstreet indicates that your company has about [number] employees working in your company across all locations. Is that an accurate estimate of your company's average employees, both full-time and part-time, over the last three years?

(NOTE TO INTERVIEWER - INCLUDES FULL- AND PART-TIME EMPLOYEES WHO WORK ACROSS ALL THEIR LOCATIONS)

1=Yes – **SKIP TO F3**

2=No

98=(DON'T KNOW) – **SKIP TO F3**

99=(REFUSED) – **SKIP TO F3**

F2. About how many full-time and part-time employees did you have working in your company across all locations, on average, over the last three years?

VERBATIM (CODE INTO CATEGORIES)

[READ LIST IF NECESSARY]

1= 100 employees or less

2=101-150 employees

3=151-200 employees

4=201-250 employees

5=251-500 employees

6=501-750 employees

7=751-1,000 employees

8=1,001-1,250 employees

9=1,251-1,500 employees

10=1,501 or more employees

F3. Dun & Bradstreet lists the average annual gross revenue of your company, including all your locations, to be [dollar amount]. Is that an accurate estimate for your company's average annual gross revenue over the last three years?

1=Yes – **SKIP TO G1a**

2=No

98=(DON'T KNOW) – **SKIP TO G1a**

99=(REFUSED) – **SKIP TO G1a**

F4. Roughly, what was the average annual gross revenue of your company, including all of your locations, over the last three years to the nearest million?

VERBATIM (CODE INTO CATEGORIES)

[IF RESPONDENT REFUSES TO ANSWER OR DOES NOT KNOW, READ RANGES]

1=Less than \$1 Million

8=\$16.6 Million - \$19.5 Million

2=\$1.1 Million - \$3 Million

9=\$19.6 Million - \$22 Million

3=\$3.1 Million - \$6 Million

10=\$22.1 Million - \$26.29 Million

4=\$6.1 Million - \$8 Million

11=\$26.3 Million or more

5=\$8.1 Million - \$10 Million

98= (DON'T KNOW)

6=\$10.1 Million - \$12 Million

99= (REFUSED)

7=\$12.1 Million - \$16.5 Million

G1a. We're interested in whether your company has experienced barriers or difficulties related to working with, or attempting to work ODOT, the Ohio Turnpike and Infrastructure Commission, or other local government organizations. Do you have any thoughts to share?

1=VERBATIM (PROBE FOR COMPLETE THOUGHTS)

97=(NOTHING/NONE/NO COMMENTS)

98=(DON'T KNOW)

99=(REFUSED)

G1b. Do you have any additional thoughts to share regarding general marketplace conditions in Ohio, starting or expanding a business in your industry, or obtaining work?

1=VERBATIM (PROBE FOR COMPLETE THOUGHTS)

97=(NOTHING/NONE/NO COMMENTS)

98=(DON'T KNOW)

99=(REFUSED)

H1. Just a few last questions. What is your name?

1=VERBATIM

H2. What is your position at [*firm name / new firm name*]?

1=Receptionist

2=Owner

3=Manager

4=CFO

5=CEO

6=Assistant to Owner/CEO

7=Sales manager

8=Office manager

9=President

9=(OTHER - SPECIFY) _____

99=(REFUSED)

H3. At what email address can you be reached?

1= VERBATIM

Thank you very much for your participation. If you have any questions or concerns, please contact David Walker, Accountability Manager at the ODOT Office of Business & Economic Opportunity at 614-644-0301.

APPENDIX C.

Availability Analysis Results Tables

Appendix C presents tables of results from the availability analysis for relevant groups of person of color- (POC-) and woman-owned businesses and for different sets of Federal Highway Administration- (FHWA-) and Federal Transit Administration- (FTA-) funded work the Ohio Department of Transportation (ODOT) awarded during the study period. For example, Figure C-2 presents estimates of the availability of POC- and woman-owned business groups for Federal Highway Administration- (FHWA-) funded contracts and procurements ODOT awarded during the study period. The table heading of Figure C-2 presents:

- The figure number (i.e., Figure C-2);
- The type of funding involved in the contracts and procurements included in the set (i.e., FHWA);
- The contract areas included in the set (i.e., All industries); and
- The contract roles included in the set (i.e., Prime contracts and subcontracts).

The table itself presents data on:

- The number of contract elements in the set (i.e., 15,156 prime contracts and subcontracts);
- The amount of contract dollars that those contract elements represent (i.e., \$4.7 billion);
- The estimated availability of different groups of POC- and woman-owned businesses for the contract elements in the set, expressed in dollars (e.g., POC- and woman-owned businesses considered together are available for \$1.04 billion of the total dollars in the contract set); and
- The estimated availability of different groups of POC- and woman-owned businesses for the contract elements in the set, expressed as a percentage of total dollars in the set (e.g., POC- and woman-owned businesses are available for 22.0 percent of total dollars in the contract set).

The format and organization of Figure C-2 is identical to that of all the tables in Appendix C with information about each relevant contract set presented in the heading of each table. Figure C-1 presents a table of contents for all the figures included in Appendix C.

Figure C-1.
Table of Contents

Table	Characteristics			Analysis of potential DBEs
	Department	Contract area	Contract role	
C-2	FHWA	All industries	Prime contracts and subcontracts	N/A
C-3	FHWA	Construction	Prime contracts and subcontracts	N/A
C-4	FHWA	Professional services	Prime contracts and subcontracts	N/A
C-5	FHWA	All industries	Prime contracts	N/A
C-6	FHWA	All industries	Subcontracts	N/A
C-7	FHWA	All industries	Prime contracts and subcontracts	Yes
C-8	FHWA	Construction	Prime contracts and subcontracts	Yes
C-9	FHWA	Professional services	Prime contracts and subcontracts	Yes
C-10	FTA	All industries	Prime contracts and subcontracts	N/A
C-11	FTA	Construction	Prime contracts and subcontracts	N/A
C-12	FTA	Professional services	Prime contracts and subcontracts	N/A
C-13	FTA	Goods and services	Prime contracts and subcontracts	N/A
C-14	FTA	All industries	Prime contracts	N/A
C-15	FTA	All industries	Subcontracts	N/A
C-16	FTA	All industries	Prime contracts and subcontracts	Yes
C-17	FTA	Construction	Prime contracts and subcontracts	Yes
C-18	FTA	Professional services	Prime contracts and subcontracts	Yes
C-19	FTA	Goods and services	Prime contracts and subcontracts	Yes

Source: BBC Research & Consulting.

Figure C-2.
Funding: FHWA
Time period: July 1, 2018–June 30, 2021
Contract area: All industries
Contract role: Prime contracts and subcontracts

Contract elements:		15,156	
Contract dollars (thousands):		\$4,736,146	
Business group		Availability dollars (thousands)	Availability percentage
Minority and woman-owned		\$ 1,044,000	22.0 %
Non-Hispanic white woman-owned		\$ 491,519	10.4 %
Minority-owned		\$ 552,480	11.7 %
Asian Pacific American-owned		\$ 26,190	0.6 %
Black American-owned		\$ 298,266	6.3 %
Hispanic American-owned		\$ 14,235	0.3 %
Native American-owned		\$ 169,670	3.6 %
Subcontinent Asian American-owned		\$ 44,118	0.9 %

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-3.
Funding: FHWA
Time period: July 1, 2018–June 30, 2021
Contract area: Construction
Contract role: Prime contracts and subcontracts

Contract elements:		13,624	
Contract dollars (thousands):		\$4,492,366	
Business group		Availability dollars (thousands)	Availability percentage
Minority and woman-owned		\$ 991,020	22.1 %
Non-Hispanic white woman-owned		\$ 471,391	10.5 %
Minority-owned		\$ 519,629	11.6 %
Asian Pacific American-owned		\$ 20,285	0.5 %
Black American-owned		\$ 285,110	6.3 %
Hispanic American-owned		\$ 12,238	0.3 %
Native American-owned		\$ 167,594	3.7 %
Subcontinent Asian American-owned		\$ 34,402	0.8 %

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-4.
Funding: FHWA
Time period: July 1, 2018–June 30, 2021
Contract area: Professional services
Contract role: Prime contracts and subcontracts

Contract elements:		1,532	
Contract dollars (thousands):		\$243,780	
Business group		Availability dollars (thousands)	Availability percentage
Minority and woman-owned		\$ 52,980	21.7 %
Non-Hispanic white woman-owned		\$ 20,128	8.3 %
Minority-owned		\$ 32,852	13.5 %
Asian Pacific American-owned		\$ 5,905	2.4 %
Black American-owned		\$ 13,156	5.4 %
Hispanic American-owned		\$ 1,998	0.8 %
Native American-owned		\$ 2,076	0.9 %
Subcontinent Asian American-owned		\$ 9,717	4.0 %

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-5.
Funding: FHWA
Time period: July 1, 2018–June 30, 2021
Contract area: All industries
Contract role: Prime contracts

Contract elements:		2,022	
Contract dollars (thousands):		\$3,321,864	
Business group		Availability dollars (thousands)	Availability percentage
Minority and woman-owned		\$ 695,090	20.9 %
Non-Hispanic white woman-owned		\$ 327,175	9.8 %
Minority-owned		\$ 367,915	11.1 %
Asian Pacific American-owned		\$ 18,487	0.6 %
Black American-owned		\$ 168,138	5.1 %
Hispanic American-owned		\$ 7,490	0.2 %
Native American-owned		\$ 138,009	4.2 %
Subcontinent Asian American-owned		\$ 35,791	1.1 %

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-6.
Funding: FHWA
Time period: July 1, 2018–June 30, 2021
Contract area: All industries
Contract role: Subcontracts

Contract elements:		13,134	
Contract dollars (thousands):		\$1,414,282	
Business group		Availability dollars (thousands)	Availability percentage
Minority and woman-owned		\$ 348,910	24.7 %
Non-Hispanic white woman-owned		\$ 164,344	11.6 %
Minority-owned		\$ 184,566	13.1 %
Asian Pacific American-owned		\$ 7,704	0.5 %
Black American-owned		\$ 130,129	9.2 %
Hispanic American-owned		\$ 6,745	0.5 %
Native American-owned		\$ 31,661	2.2 %
Subcontinent Asian American-owned		\$ 8,327	0.6 %

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-7.
Funding: FHWA
Time period: July 1, 2018–June 30, 2021
Contract area: All industries
Contract role: Prime contracts and subcontracts
Analysis of potential DBEs

Contract elements:		15,156	
Contract dollars (thousands):		\$4,736,146	
Business group		Availability dollars (thousands)	Availability percentage
Minority and woman-owned		\$ 955,834	20.2 %
Non-Hispanic white woman-owned		\$ 467,773	9.9 %
Minority-owned		\$ 488,062	10.3 %
Asian Pacific American-owned		\$ 26,084	0.6 %
Black American-owned		\$ 240,592	5.1 %
Hispanic American-owned		\$ 14,235	0.3 %
Native American-owned		\$ 168,666	3.6 %
Subcontinent Asian American-owned		\$ 38,484	0.8 %

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-8.
Funding: FHWA
Time period: July 1, 2018–June 30, 2021
Contract area: Construction
Contract role: Prime contracts and subcontracts
Analysis of potential DBEs

Contract elements:		13,624	
Contract dollars (thousands):		\$4,492,366	
Business group		Availability	Availability
		dollars	percentage
		(thousands)	
Minority and woman-owned		\$ 909,508	20.2 %
Non-Hispanic white woman-owned		\$ 447,646	10.0 %
Minority-owned		\$ 461,862	10.3 %
Asian Pacific American-owned		\$ 20,179	0.4 %
Black American-owned		\$ 227,449	5.1 %
Hispanic American-owned		\$ 12,238	0.3 %
Native American-owned		\$ 167,594	3.7 %
Subcontinent Asian American-owned		\$ 34,402	0.8 %

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-9.
Funding: FHWA
Time period: July 1, 2018–June 30, 2021
Contract area: Professional Services
Contract role: Prime contracts and subcontracts
Analysis of potential DBEs

Contract elements:		1,532	
Contract dollars (thousands):		\$243,780	
Business group		Availability	Availability
		dollars	percentage
		(thousands)	
Minority and woman-owned		\$ 46,326	19.0 %
Non-Hispanic white woman-owned		\$ 20,126	8.3 %
Minority-owned		\$ 26,200	10.7 %
Asian Pacific American-owned		\$ 5,905	2.4 %
Black American-owned		\$ 13,143	5.4 %
Hispanic American-owned		\$ 1,998	0.8 %
Native American-owned		\$ 1,072	0.4 %
Subcontinent Asian American-owned		\$ 4,082	1.7 %

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-10.
Funding: FTA
Time period: July 1, 2018–June 30, 2021
Contract area: All industries
Contract role: Prime contracts and subcontracts

Contract elements:		259	
Contract dollars (thousands):		\$66,004	
Business group	Availability dollars (thousands)	Availability percentage	
Minority and woman-owned	\$ 13,412	20.3 %	
Non-Hispanic white woman-owned	\$ 6,575	10.0 %	
Minority-owned	\$ 6,837	10.4 %	
Asian Pacific American-owned	\$ 2,192	3.3 %	
Black American-owned	\$ 4,330	6.6 %	
Hispanic American-owned	\$ 179	0.3 %	
Native American-owned	\$ 43	0.1 %	
Subcontinent Asian American-owned	\$ 92	0.1 %	

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-11.
Funding: FTA
Time period: July 1, 2018–June 30, 2021
Contract area: Construction
Contract role: Prime contracts and subcontracts

Contract elements:		38	
Contract dollars (thousands):		\$838	
Business group	Availability dollars (thousands)	Availability percentage	
Minority and woman-owned	\$ 233	27.8 %	
Non-Hispanic white woman-owned	\$ 144	17.2 %	
Minority-owned	\$ 89	10.6 %	
Asian Pacific American-owned	\$ 6	0.7 %	
Black American-owned	\$ 57	6.8 %	
Hispanic American-owned	\$ 3	0.4 %	
Native American-owned	\$ 16	1.9 %	
Subcontinent Asian American-owned	\$ 7	0.8 %	

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-12.
Funding: FTA
Time period: July 1, 2018–June 30, 2021
Contract area: Professional services
Contract role: Prime contracts and subcontracts

Contract elements:		31	
Contract dollars (thousands):		\$3,590	
Business group	Availability dollars (thousands)	Availability percentage	
Minority and woman-owned	\$ 846	23.6 %	
Non-Hispanic white woman-owned	\$ 348	9.7 %	
Minority-owned	\$ 498	13.9 %	
Asian Pacific American-owned	\$ 67	1.9 %	
Black American-owned	\$ 272	7.6 %	
Hispanic American-owned	\$ 46	1.3 %	
Native American-owned	\$ 27	0.8 %	
Subcontinent Asian American-owned	\$ 85	2.4 %	

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-13.
Funding: FTA
Time period: July 1, 2018–June 30, 2021
Contract area: Goods and services
Contract role: Prime contracts and subcontracts

Contract elements:		190	
Contract dollars (thousands):		\$61,576	
Business group	Availability dollars (thousands)	Availability percentage	
Minority and woman-owned	\$ 12,334	20.0 %	
Non-Hispanic white woman-owned	\$ 6,084	9.9 %	
Minority-owned	\$ 6,250	10.2 %	
Asian Pacific American-owned	\$ 2,119	3.4 %	
Black American-owned	\$ 4,000	6.5 %	
Hispanic American-owned	\$ 130	0.2 %	
Native American-owned	\$ 1	0.0 %	
Subcontinent Asian American-owned	\$ 1	0.0 %	

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-14.
Funding: FTA
Time period: July 1, 2018–June 30, 2021
Contract area: All industries
Contract role: Prime contracts

Contract elements:		250	
Contract dollars (thousands):		\$64,749	
Business group	Availability dollars (thousands)	Availability percentage	
Minority and woman-owned	\$ 13,086	20.2 %	
Non-Hispanic white woman-owned	\$ 6,445	10.0 %	
Minority-owned	\$ 6,641	10.3 %	
Asian Pacific American-owned	\$ 2,158	3.3 %	
Black American-owned	\$ 4,229	6.5 %	
Hispanic American-owned	\$ 165	0.3 %	
Native American-owned	\$ 32	0.0 %	
Subcontinent Asian American-owned	\$ 57	0.1 %	

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-15.
Funding: FTA
Time period: July 1, 2018–June 30, 2021
Contract area: All industries
Contract role: Subcontracts

Contract elements:		9	
Contract dollars (thousands):		\$1,255	
Business group	Availability dollars (thousands)	Availability percentage	
Minority and woman-owned	\$ 326	26.0 %	
Non-Hispanic white woman-owned	\$ 130	10.4 %	
Minority-owned	\$ 196	15.6 %	
Asian Pacific American-owned	\$ 34	2.7 %	
Black American-owned	\$ 100	8.0 %	
Hispanic American-owned	\$ 14	1.1 %	
Native American-owned	\$ 12	0.9 %	
Subcontinent Asian American-owned	\$ 35	2.8 %	

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

“Woman-owned” refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-16.
Funding: FTA
Time period: July 1, 2018–June 30, 2021
Contract area: All industries
Contract role: Prime contracts and subcontracts
Analysis of potential DBEs

Contract elements:		259	
Contract dollars (thousands):		\$66,004	
Business group		Availability	Availability
		dollars	percentage
		(thousands)	
Minority and woman-owned	\$	13,010	19.7 %
Non-Hispanic white woman-owned	\$	6,346	9.6 %
Minority-owned	\$	6,663	10.1 %
Asian Pacific American-owned	\$	2,071	3.1 %
Black American-owned	\$	4,310	6.5 %
Hispanic American-owned	\$	179	0.3 %
Native American-owned	\$	31	0.0 %
Subcontinent Asian American-owned	\$	72	0.1 %

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

"Woman-owned" refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-17.
Funding: FTA
Time period: July 1, 2018–June 30, 2021
Contract area: Construction
Contract role: Prime contracts and subcontracts
Analysis of potential DBEs

Contract elements:		38	
Contract dollars (thousands):		\$838	
Business group		Availability	Availability
		dollars	percentage
		(thousands)	
Minority and woman-owned	\$	213	25.4 %
Non-Hispanic white woman-owned	\$	128	15.3 %
Minority-owned	\$	85	10.1 %
Asian Pacific American-owned	\$	6	0.7 %
Black American-owned	\$	53	6.3 %
Hispanic American-owned	\$	3	0.4 %
Native American-owned	\$	16	1.9 %
Subcontinent Asian American-owned	\$	7	0.8 %

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

"Woman-owned" refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-18.
Funding: FTA
Time period: July 1, 2018–June 30, 2021
Contract area: Professional services
Contract role: Prime contracts and subcontracts
Analysis of potential DBEs

Contract elements:		31	
Contract dollars (thousands):		\$3,590	
Business group		Availability	Availability
		dollars	percentage
		(thousands)	
Minority and woman-owned	\$	795	22.1 %
Non-Hispanic white woman-owned	\$	345	9.6 %
Minority-owned	\$	450	12.5 %
Asian Pacific American-owned	\$	67	1.9 %
Black American-owned	\$	257	7.2 %
Hispanic American-owned	\$	46	1.3 %
Native American-owned	\$	15	0.4 %
Subcontinent Asian American-owned	\$	65	1.8 %

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

"Woman-owned" refers to white woman-owned businesses.

Source: BBC availability analysis.

Figure C-19.
Funding: FTA
Time period: July 1, 2018–June 30, 2021
Contract area: Goods and services
Contract role: Prime contracts and subcontracts
Analysis of potential DBEs

Contract elements:		190	
Contract dollars (thousands):		\$61,576	
Business group		Availability	Availability
		dollars	percentage
		(thousands)	
Minority and woman-owned	\$	12,001	19.5 %
Non-Hispanic white woman-owned	\$	5,873	9.5 %
Minority-owned	\$	6,129	10.0 %
Asian Pacific American-owned	\$	1,998	3.2 %
Black American-owned	\$	4,000	6.5 %
Hispanic American-owned	\$	130	0.2 %
Native American-owned	\$	1	0.0 %
Subcontinent Asian American-owned	\$	1	0.0 %

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent.

"Woman-owned" refers to white woman-owned businesses.

Source: BBC availability analysis.