

2018-2020

FEDERAL TRANSIT ADMINISTRATION DBE
METHODOLOGY AND GOAL

Developed by the



August 1, 2017

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2018-2020 FTA DBE METHODOLOGY AND GOAL DEVELOPED BY THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

The Pennsylvania Department of Transportation (PennDOT) has developed its DBE goal and goal-setting methodology in accordance with the federal regulatory mandate set forth in Title 49 Code of Federal Regulations (Part 26), and the *Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program* (TIPS) published by the U.S. Department of Transportation (DOT) Office of Small and Disadvantaged Business Utilization. This document provides guidance applicable to this triennial DBE participation goal and methodology for federally-assisted transit contracts using funds disbursed by the Federal Transit Administration (“FTA”). PennDOT’s DBE goal and methodology submission is due every three years. It completes interim reviews or “inline adjustments” annually to assess market conditions and to ensure that its goal remains legally defensible.

This document is divided into three primary sections: an overview of the goal-setting process, a detailed discussion of the DBE goal-setting methods, and several appendices. The overview provides a brief background regarding the federal regulation governing the DBE program, a summary of the process used to establish the DBE goal, public consultation and outreach efforts, administration of the goal, and concludes with a statement of the proposed DBE goal for FY-2018-20. The detailed discussion provides a more thorough explanation of the goal setting process, including actual steps involved in the process. The appendices include a list of terminology and definitions, along with a technical addendum showing the calculations from which the goal was derived.

OVERVIEW OF THE GOAL-SETTING PROCESS

The Regulatory Mandate

All state departments of transportation (state DOTs) are required to submit triennial overall goals for DBE participation using the two-step goal-setting process set forth in Section 26.45 of Part 26. This process is intended to address the following objectives of the DBE program as defined by 49 C.F.R. Part 26.1:

- Create a level playing field on which DBEs can compete fairly for DOT-assisted contracts;
- Ensure that the DOT’s DBE program is narrowly tailored in accordance with applicable law;
- Ensure that only firms that fully meet eligibility standards are permitted to participate as DBEs;
- Help remove barriers to the participation of DBEs in DOT-assisted contracts;
- To assist the development of firms that can compete successfully in the marketplace outside the DBE program; and
- Provide appropriate flexibility to recipients of Federal financial assistance in establishing and providing opportunities for DBEs.

This methodology considers relevant data in determining the level of participation that PennDOT would expect in the absence of discrimination or other socio-economic barriers. In accordance with Section 26.45 of Part 26, the DBE goal-setting process requires the establishment of a base figure for the relative availability of DBEs in the market; describing the evidence with which it was calculated; making adjustments to adjusting that figure to make it as precise as possible, where appropriate; and, describing the evidence relied upon for such adjustments. As an extension of this process, Section 26.45 requires that state DOT's meet the "maximum feasible portion" of its overall DBE utilization goal through *race-neutral means of facilitating race-neutral DBE participation*.

Under Part 26, goals must be established and submitted to the Federal Transit Administration (FTA) on a triennial basis. This methodology details PennDOT's approach for setting the overall DBE goal and maximizing race-neutral means for attainment of that goal for the federal fiscal years 2018 through 2020.

Summary of the Two-Step Goal-Setting Effort

To comply with the goal setting provisions of the DBE regulation, PennDOT employed the two-step process set forth in Section 26.45 of Part 26. In addition, PennDOT projected percentages of the overall goal attributed to both *race-conscious* and *race-neutral* means required by Sections 26.45 and 26.51.

STEP-1 – Baseline Goal

Step-1 calls for the calculation of a base figure reflecting the relative availability of DBEs to perform the work intended to be let within the local marketplace. This analysis involves determining the percentage of DBEs, including potential DBEs, represented among all firms (DBEs and non-DBEs) or the enterprise universe (EU) that are ready, willing, and able (RWA) to compete for federally-assisted contracting.

To determine this percentage, PennDOT first compiled a bidders list from reports of FTA subrecipients. This allowed the Department to identify firms who are ready, willing, and able to perform work on FTA-assisted projects. Next, PennDOT defined the local market for all federally-assisted contracting based on where contractors within each North American Industrial Classification System (NAICS) code were located. PennDOT subsequently identified the number of potential DBE firms within that local market area using a measure of race-neutrality for each NAICS code. The final baseline ratio of DBEs was calculated by dividing the total number of DBEs (current and potential) by the number of all ready, willing, and able firms (DBEs and non-DBEs) within the local market.

Once a baseline ratio was established for each NAICS Code, PennDOT weighted the ratios according to the anticipated expenditures within each of NAICS Code to yield a relative availability of DBEs. Weighting by NAICS Codes ensures that the Step-1 Base figure is as accurate as possible in relation to PennDOT contracting practices.

STEP-2 – Adjustments to the Goal

Under Step-2 of the goal setting process, the Department examined all relevant evidence in its jurisdiction to determine what adjustments, up or down, needed to be made to the base figure to arrive at the overall goal. Step-2 accounts for variables affecting DBEs in the Commonwealth. Under the Pennsylvania Unified Certification Program (PAUCP) PennDOT and four other entities in the Commonwealth certify DBEs recognize each other's certification (certification by one is certification by all). The PAUCP list of DBEs is used in tandem with the Department's bidders' list.

The Department adjusted the step-1 ratio based on the Department's past DBE participation on FTA-assisted projects resulting in the final goal for FTA-assisted projects for the federal fiscal years 2018-2020.

Data Sources

Bidders' lists were supplied to the Department by each transit authority receiving federal funds through the Department. The Department aggregated these lists into one master bidders' list eliminating duplicates and verifying each firm's DBE status using the PAUCP list.

The Department delineated each firm's primary NAICS code for goal calculation purposes. The Department then identified the number of all firms located in Pennsylvania and other states that match the pertinent NAICS codes through the publicly available online Hoovers Database (a Dunn and Bradstreet product available at many libraries).

Past participation data was aggregated from the Department's semi-annual submissions to FTA.

No additional objective and verifiable data were available that required further adjustments to the goal setting process. Although one disparity study was available for the City of Philadelphia, it addresses the types of work performed under city contracts, and is confined geographically to the Philadelphia metropolitan area. PennDOT reviewed this study and concluded that it does not contain data relevant to this submission; therefore, the findings were not incorporated in this methodology. Additionally, data on statistical disparities or other evidence on employment, self-employment, education, training, union apprenticeship were not available. PennDOT intends to expand research efforts to acquire this and other objective and verifiable data that may be useful in its goal-setting methodology for future submissions.

Race-Conscious/Race-Neutral Allocation

- Consistent with the TIPS, the Department designated an amount equivalent to the median race-neutral attainment for the previous five (5) years as the race-neutral portion of the goal.

Consultation and Outreach Efforts

In accordance with Section 26.45(f), the Department will submit its overall goal and methodology to DOT on August 1, 2017. Consistent with the Part 26 mandate, PennDOT employed face-to-face consultations and outreach efforts with the impacted stakeholders described in this section to collect and utilize the most refined and best data in its marketplace available. To ensure thorough analysis of this data, PennDOT continued to avail itself of highly qualified research professionals and statistical analysts from Indiana University of Pennsylvania and the Pennsylvania State University. Since establishment of the goal requires thorough analysis of available and applicable data in the local marketplace, and these professionals work with such data on a regular basis, they are an essential part of our DBE team.

Department outreach initiatives include Regional Outreach Sessions, a new DBE interactive website and a Bureau of Equal Opportunity Advisory Council.

Public Consultation

Additionally, PennDOT consults with community organizations, and other officials or organizations, such as the National Black Chamber of Commerce, that could be expected to have information relative to the availability of disadvantaged and non-disadvantaged businesses. Such organizations have provided valuable data about the effects of discrimination on opportunities for DBEs and aided PennDOT's efforts to establish a level playing field for the participation of DBEs in federally-assisted, transportation-related contracting.

In preparation for this submission, PennDOT scheduled, publicized, and convened a series of meetings in the Allentown, Philadelphia, Pittsburgh, Erie, and Harrisburg areas during the first half of 2017. These meetings were conducted to obtain information relevant to the goal setting process through direct, interactive exchanges. They were widely publicized to reach as many interested stakeholders within the Commonwealth's contracting community as possible. During the meetings, Department program personnel as well as PennDOT's goal-setting consultants made every effort to solicit and to address questions about PennDOT's methodology and goal as well as about other issues under the DBE program.

In addition to the regional public consultation meetings, PennDOT employed other strategies to solicit input from its customers. PennDOT meets annually with members of the Associated Pennsylvania Constructors (APC) and the American Council of Engineering Companies (ACEC) to seek input and feedback from the contracting community and continued to do so for this submission. PennDOT also established an Advisory Council comprised of DBEs that meets on a regular basis. This DBE Advisory Council provided a forum to engage these DBEs and others as part of our public consultation effort.

Public Notice and Public Comment

Following these public consultation and outreach efforts, PennDOT published a notice of the proposed overall goals in the *Pennsylvania Bulletin*, informing the public that the proposed overall goal and methodology used to calculate the goal are available for inspection during normal business hours at PennDOT's principal office for thirty (30) days following the date of

the notice. PennDOT determined the optional 30-day comment period was beneficial. The notice informed the public that PennDOT and DOT will accept comments on the goals for 30 days from the date of the notice published in the *Pennsylvania Bulletin*, a publication recognized by the public as the location for public notices issued by executive agencies of the Commonwealth. The notice also appeared in general circulation media (newspapers) and available minority-focused media and trade association publications the latest of which published on June 28, 2017. Thus, the 30-day public comment period began June 28, 2017. The notice included addresses to which comments may be sent and as well as offices and websites where the proposal may be reviewed.

PennDOT's overall goal submission to DOT will include a summary of information and comments received during this public participation process and our responses.

PennDOT will begin using its overall goal on October 1, 2017, unless it receives direction the contrary from the FTA. This methodology will guide the Department in calculating specific contract goals on federally-funded projects.

Administration, Implementation, and Monitoring

Contract monitoring and adjustment are required during the goal period. Following the implementation of a new overall goal, PennDOT will monitor DBE goal commitments, and DBE goal attainments. The Bureau of Equal Opportunity (BEO) collects this data and incorporates it into future project goal calculations.

Contract Goals and Adjustment of the Goal

PennDOT will use contract goals to meet any portion of the overall goal PennDOT does not project being able to meet using race-neutral means. Contract goals are established so that, over the period to which the overall goal applies, they will cumulatively result in meeting any portion of the overall goal that is not projected to be met through race-neutral means or measures. The following Part 26 principles are employed during goal-setting:

- Contract goals apply on those FTA-assisted contracts that have subcontracting possibilities.
- PennDOT is not required to establish a contract goal on every federally-funded contract, and the size of contract goals will be adapted to the circumstances of each contract (e.g., type and location of work, availability of DBEs to perform the type of work).
- The DBE contract goal for a specific contract may be higher or lower than the overall goal; depending upon other factors such as the type of work for the project; the location of the project work; and the availability of DBEs for a given contract.
- Over the period covered by the overall goal, PennDOT must set goals that will cumulatively result in meeting any portion of its overall goal that it does not project being able to meet via race-neutral means.

As part of its monitoring efforts, PennDOT may make adjustments to the goal. Section 26.51(f)(2) of Part 26. states that if, during the three-year period in which PennDOT is using contract goals, it determines that it will exceed its overall goals, it must reduce or eliminate the use of contract goals to the extent necessary to ensure that the use of contract goals does not result in exceeding the overall goal. Similarly, if PennDOT determines it will fall short of the overall goal, it will make appropriate modifications in race-neutral or race-conscious (contract) measures to allow it to meet the overall goal.

Good Faith Efforts

The obligation of the bidder/offeror is to make good faith efforts. The bidder/offeror can demonstrate that it has done so either by meeting the contract goal or documenting good faith efforts. Examples of good faith efforts are found in Appendix A to Part 26.

The Department will ensure all information is complete, accurate, and adequately documents the bidder/offeror's good faith efforts before PennDOT commits to the performance of the contract by the bidder/offeror. Each solicitation for which a contract goal has been established will require the bidders/offerors to submit the following information:

1. The names and addresses of DBE firms that will participate in the contract;
2. A description of the work that each DBE will perform;
3. The dollar amount of the participation of each DBE firm participating;
4. Written and signed documentation of commitment to use a DBE subcontractor whose participation it submits to meet a contract goal;
5. Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment and
6. If the contract goal is not met, evidence of good faith efforts.

Challenges regarding Good Faith Efforts are addressed by an Interdisciplinary Review Team using PennDOT's two-tier good faith effort administrative reconsideration process. In addition, PennDOT maintains a committee available to entertain good faith efforts matters that cannot be resolved by initial reviewers.

Overall Goal for Participation by DBEs in PennDOT's Federally-Assisted Contracts

PennDOT's goal-setting methodology described in this document has resulted in an overall goal for participation by DBEs in PennDOT's federally-assisted contracts of **11.97 percent**. PennDOT proposes to meet this goal through race-conscious or traditional contract goals. This goal will remain in effect until PennDOT is required to submit a new goal on August 1, 2020. Meanwhile, PennDOT will conduct an Inline Correction analysis annually to assess changes in market conditions that may require adjustments to this goal and will submit these recommendations for FTA review and approval as needed.

DETAILED DISCUSSION OF PENNDOT'S DBE GOAL SETTING METHODS AND RACE-NEUTRAL/RACE-CONSCIOUS PROJECTIONS

The guiding principal for determining the DBE goal is stated in 49 C.F.R. § 26.45(b): "The goal must reflect [PennDOT's] ... determination of the level of DBE participation [PennDOT] ... would expect absent the effects of discrimination." In making this determination, PennDOT is instructed that the "overall goal must be based on demonstrable evidence of the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate on DOT-assisted contracts."

The regulation requires that the overall goal be determined by a two-step process.

STEP-1 – Baseline Goal

Step-1 calls for "determining a base figure for the relative availability of DBEs" (49 C.F.R. § 26.45(c)). "Relative availability of DBEs" means "the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate on DOT-assisted contracts" (49 C.F.R. § 26.49(b)). This determination was made for each of the NAICS codes representing the work the Department anticipates funding with FTA funds during the 2018-2020 federal fiscal years.

PennDOT Ready, Willing, and Able Firms

The Step-1 calculation was performed by first determining the total number of PennDOT ready, willing, and able enterprise firms or units ("Enterprise Units") and the number of ready, willing, and able Disadvantaged Business Enterprise firms or units ("DBE Units") in each NAICS code. The federal regulation does not contain a definition of "ready, willing, and able." PennDOT assumed that firms responding to bids from sub-recipients or which have performed work on federally-assisted projects are "ready, willing and able." (RWA)

Local Market Analysis

PennDOT determined its primary local market based on demonstrated interest in federally-assisted contracts among contractors and subcontractors. This primary local market was established using calculations that weight jurisdictions within and outside of the Commonwealth in accordance with each contractor's location.

The primary local market represents that area where a substantial majority of contractors and subcontractors with which PennDOT does business are located. Using each firm's primary NAICS code, the Department developed a unique local area market for each NAICS code.

Analysis of Potential DBEs

Next, an analysis of potential DBEs resulted in revised ratios by incorporating potential DBEs identified within PennDOT's local market area. PennDOT's approach to identifying potential DBEs uses a data-driven approach that expands this analysis beyond existing bidders' lists and

past participation to best reflect the actual availability of RWA DBE firms. The methodology considers interest and capability, incorporating the UCP and DBE directories as a subset of a larger list of potential DBEs. It also addresses latent barriers DBEs may encounter in contracting with PennDOT as required in 29 CFR 26.45 (d). The following steps outline the process for determining potential DBEs. Actual calculations are provided in the Technical Addendum:

1. Identify the primary NAICS code and location of each firm on the bidders' list.
2. Identify the total number of firms (EU) in each jurisdiction within the local market for each NAICS code.
3. Identify the total number of DBE firms in each NAICS code by cross-referencing the UCP list.
4. Determine a measure of race neutrality by calculating the ratio of PennDOT non-DBE firms to all firms within each sub-market NAICS code profile. Absent discrimination, the ratio of DBE firms within PennDOT contracting should be identical to the ratio of non-DBEs firms to all firms within the local market generally:

$$\frac{\text{PennDOT non-DBE firms}}{\text{All Firms}}$$

5. Identify the number of potential DBEs for each jurisdiction within the NAICS code's primary local market area using the listing of woman- and minority-owned firms from Hoover Online Database produced by Dun and Bradstreet.
6. Multiply the number of potential DBEs by the weight assigned to that jurisdiction in the local market analysis.
7. Add the number of existing PennDOT DBEs (PA and non-PA) and the weighted number of potential non-PA DBEs to calculate a total number of potential DBEs for each NAICS code.
8. In cases where PennDOT's DBE ratio is *lower* than that in the local market, the DBE ratio is adjusted upward to match the race neutral ratio in step 7. In cases where PennDOT's DBE ratio is *higher* than that in the local market, the expected DBE ratio remains at the higher level. No adjustment is made since this ratio reflects the actual number of PennDOT DBEs relative to all firms.

NAICS Code	PennDOT DBE Ratio	Local Market DBE Ratio
221210	0.00%	12.04%*
236220	10.81%	17.86%*
237130	16.67%	19.82%*
237310	18.46%	19.13%*
237990	5.05%	15.09%*
238110	10.00%*	9.35%
238120	14.29%	22.69%*
238130	0.00%	4.06%*
238140	11.54%*	7.39%
238150	7.14%	12.43%*
238160	4.65%	6.82%*

238220	5.49%	5.96%*
238290	0.00%	10.33%*
238320	18.75%*	8.23%
238910	8.77%	9.37%*
238990	3.19%	5.70%*
323111	16.67%	23.00%*
336310	0.00%*	0.00%
423450	0.00%	15.73%*
423850	0.00%	14.55%*
424720	4.84%	7.79%*
441310	0.00%	4.19%*
441320	0.00%	3.63%*
453210	0.00%	14.45%*
454310	0.00%	14.17%*
485113	0.00%	10.97%*
485999	0.00%	28.19%*
524113	0.00%	2.51%*
524114	0.00%	5.82%*
541110	3.03%	7.15%*
541200	0.00%*	0.00%
541214	0.00%	15.28%*
541330	12.92%	21.42%*
541613	7.14%	14.22%*
541614	0.00%	15.73%*
541619	0.00%*	0.00%
561330	0.00%*	0.00%
561612	5.00%	15.31%*
561621	0.00%	11.39%*
561720	9.02%	17.91%*
561730	3.45%	5.43%*
562210	0.00%*	0.00%
621511	0.00%	13.73%*
811192	0.00%	5.78%*
811198	0.00%	3.00%*
811212	0.00%	8.39%*
811213	0.00%	6.98%*
811310	0.00%	4.47%*
812331	0.00%	8.68%*

*Figure used in calculation.

Note: The numbers in this table have been rounded for display purposes.

Baseline Ratio

Finally, the number of DBE Units was divided by the total number of Enterprise Units to arrive at the baseline ratio. This provides the Step-1, or preliminary calculation of the level of DBE participation one would expect absent the effects of discrimination. This ratio shows, as of Step-1, the portion of all federal dollars that, absent discrimination, one would expect to be spent directly or indirectly on DBE work in each NAICS Code.

NAICS Code	Anticipated Contract Expenditures	Expenditure Weight	DBE Ratio	Weighted Ratio
221210	\$23,388.00	0.0001	0.1204	0.0000
236220	\$134,708,952.00	0.5896	0.1786	0.1053
237130	\$3,001,598.74	0.0131	0.1982	0.0026
237310	\$35,800,000.00	0.1567	0.1913	0.0300
237990	\$6,178,000.00	0.0270	0.1509	0.0041
238110	\$2,659,000.00	0.0116	0.1000	0.0012
238120	\$2,417,000.00	0.0106	0.2269	0.0024
238130	\$224,000.00	0.0010	0.0406	0.0000
238140	\$962,000.00	0.0042	0.1154	0.0005
238150	\$16,000.00	0.0001	0.1243	0.0000
238160	\$273,000.00	0.0012	0.0682	0.0001
238220	\$169,800.00	0.0007	0.0596	0.0000
238290	\$29,088.81	0.0001	0.1033	0.0000
238320	\$243,000.00	0.0011	0.1875	0.0002
238910	\$6,234,000.00	0.0273	0.0937	0.0026
238990	\$67,000.00	0.0003	0.0570	0.0000
323111	\$27,000.00	0.0001	0.2300	0.0000
336310	\$30,000.00	0.0001	0.0000	0.0000
423450	\$3,654.27	0.0000	0.1573	0.0000
423850	\$4,283.92	0.0000	0.1455	0.0000
424720	\$51,995.40	0.0002	0.0779	0.0000
441310	\$3,927,856.00	0.0172	0.0419	0.0007
441320	\$337,785.60	0.0015	0.0363	0.0001
453210	\$78.60	0.0000	0.1445	0.0000
454310	\$2,880,549.91	0.0126	0.1417	0.0018
485113	\$630,000.00	0.0028	0.1097	0.0003
485999	\$85,000.00	0.0004	0.2819	0.0001
524113	\$45,678.38	0.0002	0.0251	0.0000
524114	\$1,284,451.54	0.0056	0.0582	0.0003
541110	\$520,728.38	0.0023	0.0715	0.0002
541200	\$385,127.65	0.0017	0.0000	0.0000
541214	\$45,925.62	0.0002	0.1528	0.0000
541330	\$23,702,261.25	0.1037	0.2142	0.0222
541613	\$152,261.25	0.0007	0.1422	0.0001
541614	\$72,000.00	0.0003	0.1573	0.0000
541619	\$438,399.45	0.0019	0.0000	0.0000
561330	\$4,567.84	0.0000	0.0000	0.0000
561612	\$10,391.14	0.0000	0.1531	0.0000
561621	\$10,000.00	0.0000	0.1139	0.0000
561720	\$102,598.16	0.0004	0.1791	0.0001
561730	\$65,000.00	0.0003	0.0543	0.0000
562210	\$7,500.00	0.0000	0.0000	0.0000
621511	\$13,962.81	0.0001	0.1373	0.0000
811192	\$35,760.00	0.0002	0.0578	0.0000
811198	\$2,131.66	0.0000	0.0300	0.0000
811212	\$323,690.00	0.0014	0.0839	0.0001
811213	\$36,542.70	0.0002	0.0698	0.0000
811310	\$1,000.00	0.0000	0.0447	0.0000

NAICS Code	Anticipated Contract Expenditures	Expenditure Weight	DBE Ratio	Weighted Ratio
812331	\$223,356.75	0.0010	0.0868	0.0001
Total	\$228,467,365.81	1.0000		0.1752

Note: The numbers in this table have been rounded for display purposes.

STEP-II – Adjustments to the Base Goal

Step-2 calls for PennDOT to "examine all of the evidence available in [PennDOT's] ... jurisdiction to determine what adjustment, if any, is needed to the base figure to arrive at [PennDOT's] ... overall goal." (49 C.F.R. § 26.45(d)). PennDOT must indicate what changes it makes in Step-2 to the Step-1 Baseline Goal, and the evidence relied upon for those changes. If any relevant, available evidence is not used, PennDOT must explain why that evidence was not used in the Step-2 changes. (49 C.F.R. § 26.45(f)(3)).

Essentially, Step-2 requires PennDOT to incorporate into the goal calculations any available evidence that will improve the accuracy of the Step-1 Baseline Goal in order to carry out the overall objective of determining the level of DBE participation that would occur absent the effects of discrimination.

The Department looked to its past DBE participation to adjust the step-1 ratio. As recommended in the TIPS, the Department used median annual attainment for FTA-assisted projects over the last five years is 6.43%. Averaging this attainment with the step-1 ratio of 17.52% yield an adjusted ratio of 11.97%.

PennDOT attainment on FTA-assisted contracts

Year	Attainment
2012	6.43%
2013	0.43%
2014	0.03%
2015	6.92%
2016	14.59%
Median of last five years	6.43%

Goal in Dollars – Multiplying the 11.97% times the anticipated three-year spending on federally assisted contracts of \$228,467,365.81 yields \$27,357,393.55.

Race-Neutral/Race-Conscious Projections

The final DBE goal established by PennDOT can be attained in two ways. First, it can be attained through race-conscious means such as contract goals. Second, the goal can be attained via race-neutral means as when DBEs receive work, even though no special effort is made on the part of PennDOT or contractors to singularly engage DBEs (as noted in the Program Terms section of this document, race neutral means may be characterized by efforts designed to assist all small businesses as opposed to measures designed to benefit DBEs alone).

PennDOT examined its past attainment figures to establish the amount of race-neutral attainment. Median race-neutral attainment over the last five years has been 0.00%. As per the regulations, PennDOT determined that 0.00% of the FFY 2018-2020 goal should be achieved through race-neutral means, leaving the race-conscious portion of the 2018-2020 goal at 11.97%.

DBE regulations 49 C.F.R. § 26.51(f)(4) state in part, “If you obtain DBE participation that exceeds your overall goal in two consecutive years through the use of contract goals (i.e., not through the use of race-neutral means alone), you must reduce your use of contract goals proportionately in the following year.” Because the Department did not reach its goal in each of the last two years, no further adjustment to the race-conscious/race-neutral allocation is necessary.

Table 3: Race-Neutral Attainment over Previous Five Years

Year	Race-Neutral Attainment
2012	0.00%
2013	0.00%
2014	0.00%
2015	0.00%
2016	0.04%
Median of last five years	0.00%

Note: The numbers in this table have been rounded for display purposes

Under Section 26.51(b), race-neutral means include: providing assistance in overcoming limitations such as the inability to obtain bonding or financing by simplifying the bonding process; reducing bonding requirements; eliminating the impact of surety costs from bids; and, providing services to help DBEs and other small businesses obtain bonding and financing. Race-neutral participation includes, but is not limited to situations such as a DBE winning a prime contract through customary competitive procurement procedures; is awarded a subcontract on a prime contract that does not carry a DBE goal, or even if there is a DBE goal, wins a subcontract from a prime contractor that did not consider its DBE status in awarding the contract (e.g. a prime contractor that uses a strict low bid system to award subcontracts).

Consistent with the federal regulation, PennDOT is committed to meeting the maximum feasible portion of its overall goal by using race-neutral means. PennDOT will monitor the race-neutral and race-conscious goal apportionment and make appropriate adjustments upward or downward.

Evidence from Related Fields

Under Part 26, the Department must consider evidence from related fields that affect opportunities for DBEs to form, grow, and compete. The City of Philadelphia produced a disparity study for federal fiscal year 2015 by Econsult Solutions, Inc. and Milligan and Company, LLC. Since the study focuses on the City of Philadelphia and its surrounding area, it is

not generalizable to the Commonwealth as a whole. Nothing in the study rises to the level of support for an adjustment for this item.

Good Faith Efforts

The Department addresses and monitors the small number of submissions for good faith efforts, but the Department has found no need to make a goal adjustment for this item.

TERMINOLOGY

The following program terms tailored to the local conditions of the Commonwealth of Pennsylvania consistent with 49 C.F.R. part 26 are provided for reference:

BIDDERS' LIST – The list of firms who have bid on FTA-funded projects placed for bid by the Department's FTA subrecipients. Each subrecipient provided a list that was then compiled into a master list for the Department's use.

DEPARTMENT – As used in this document, PennDOT refers to the Pennsylvania Department of Transportation of the Commonwealth of Pennsylvania.

DBE – Disadvantaged Business Enterprise; A small, for-profit business that meets the size, ownership, control, and definitional requirements of 49 C.F.R. Part 26.5 and has been certified by the UCP under the federal regulation set forth in 49 C.F.R. Part 26.

ENTERPRISE UNIVERSE (EU) – All (DBE and no-DBE) ready, willing, and able firms within an established local market.

LOCAL MARKET – PennDOT has calculated custom marketplaces for each NAICS code based on the locations listed on the Department's bidders list.

NAICS CODE - The North American Industry Classification System (NAICS) is the standard used by federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

POTENTIAL DBE – Minority- or woman-owned firms that are not yet identified as RWA by PennDOT but meet the requirements for DBE certification and are currently operating within a pertinent NAICS code within that NAICS code's identified geographic market.

PENNDOT – As used in this document, PennDOT refers to the Pennsylvania Department of Transportation of the Commonwealth of Pennsylvania.

POTENTIAL NEW DBEs – Estimated number of new DBE firms that could be expected to bid on federally-funded transit projects in addition to existing DBEs.

RACE NEUTRALITY – A measure of participation in federally-funded transit projects among DBE and non-DBE firms expected in the absence of discrimination. This measure is calculated as a ratio of DBE firms to all firms within a defined NAICS code available in the local market.

READY, WILLING, AND ABLE (RWA) BUSINESSES/ENTERPRISES – The current universe of businesses interested, capable, and authorized to perform work on PennDOT's federally-assisted, transportation-related contracts. *Ready* refers to those businesses that perform a trade, function or service that may be utilized on PennDOT's federally-assisted contracts. *Willing* refers to ready businesses that have either performed or expressed a bona fide interest in performing a function on PennDOT's federally-assisted contracts. *Able* refers to ready and

willing businesses that have fulfilled PennDOT's requirements to participate in the performance of its federally-assisted contracts. In sum, those businesses that are ready, willing, and able to perform on PennDOT's federally assisted contracts are businesses authorized by PennDOT to participate in its federally-assisted contracts that have either expressed or demonstrated an interest in doing so.

READY, WILLING, AND ABLE (RWA) DBEs – Those businesses that meet the definition of “ready, willing, and able businesses” and that have been certified by PennDOT or any of the other entities that certify DBEs in the Commonwealth under the Commonwealth's approved Unified Certification Program (PA UCP) as a DBE consistent with the provisions of 49 C.F.R. Part 26. In sum, PennDOT's universe of ready, willing and able DBEs within the meaning of 49 C.F.R. Part 26, consists of certified DBEs that have either expressed or demonstrated an interest in participating in federally-assisted Department contracts and have been authorized to do so.

RELATIVE AVAILABILITY OF DBEs – Consistent with 49 C.F.R. Part 26.45, “relative availability” of DBEs refers to demonstrable evidence of the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate on PennDOT's federally-assisted transportation-related contracts.

RACE-NEUTRAL MEASURES – Consistent with Section 26.5, the definitional section of the federal regulation set forth in 49 C.F.R. Part 26, PennDOT's race-neutral measures are those designed to assist all small businesses as opposed to measures designed to benefit DBEs alone.

RACE-CONSCIOUS MEASURES – Consistent with the definitional section of the federal regulation set forth in 49 C.F.R. Part 26, PennDOT's race-conscious measures are those that are focused exclusively on DBEs. These include traditional contract goals.

TECHNICAL ADDENDUM

REVIEW OF METHODS

Identifying anticipated FTA funded-projects during federal fiscal years 2018-2020

PennDOT surveyed all subrecipients to identify planned projects for the period. Additionally, PennDOT identified capital and rail projects slated for construction during the period. Each project was analyzed to determine its estimated cost. The types of work on each project were matched with the appropriate NAICS code. The tables below show the anticipated projects with associated costs and NAICS codes.

Table 1. Subrecipient reported projects

Subrecipient	Description	Amount	NAICS Code
ATA	Auditing Services	\$81,707.35	541200
ATA	Computer Hardware	\$14,940.64*	424430
ATA	Computer Software	\$14,490.64*	424430
ATA	Custodial Service	\$188,544.88	561720
ATA	Drug Screening	\$13,388.06	621511
ATA	Engineering Services	\$33,542.71	541330
ATA	Facility Maintenance	\$670,293.24	236220
ATA	Fluids/Lubricants	\$125,326.11*	424720
ATA	Fuel	\$857,052.48*	454310
ATA	Garage Rentals	\$137,987.45	812930
ATA	IT Services	\$48,079.77	811212
ATA	Legal Services	\$40,715.65	541110
ATA	Marketing	\$166,490.19	541613
ATA	Mobile Phone Service	\$50,385.98	517210
ATA	Office Equipment	\$4,139.26*	453210
ATA	Parts	\$526,185.82*	441310
ATA	Printing Services	\$81,094.30	323111
ATA	Purchased Transportation	\$1,094,024.38	485113
ATA	Radio Equipment	\$12,583.42*	443142
ATA	Tires	\$136,869.80*	441320
ATA	Tools	\$42,639.32	441310
ATA	Towing	\$22,122.39	484410
ATA	Vehicle Maintenance Services	\$363,294.68	811198
ATA	Website Hosting	\$18,005.74	518210

Subrecipient	Description	Amount	NAICS Code
Butler	Advertising RFQ	\$20,000.00	541810
Butler	Auditing Services	\$42,000.00	541200
Butler	Commuter Service	\$340,200.00	485113
Butler	Copier-Lease	\$7,740.00	532420
Butler	Fixed Route Service	\$2,384,297.00	485113
Butler	Fuel	\$252,000.00*	454310
Butler	Marketing Startup RFP	\$50,000.00	541613
Butler	Mat Cleaning	\$3,600.00	812331
Butler	Park N' Ride Maintenance	\$19,648.00	237310
CAT	Fixed Ride Service	\$630,000.00	485113
Erie	Attorney Services	\$319,050.00	541110
Erie	Auditing Services	\$78,750.00	541200
Erie	Bus Parts	\$865,839.00*	441310
Erie	Diesel Fuel	\$1,609,278.00*	454310
Erie	IT Professional Services	\$283,500.00	541619
Erie	Janitorial Services	\$73,364.00	561720
Erie	Office Supplies	\$78.60	453210
Erie	Oil & Grease	\$51,995.40	424720
Erie	Tires	\$238,785.60*	441320
ICTA	Auditing Services	\$36,000.00	541200
ICTA	Fuel	\$54,000.00*	454310
ICTA	IT Consulting Services	\$72,000.00	541614
ICTA	Legal Services	\$45,000.00	541110
ICTA	Outside Repairs	\$60,000.00	236220
ICTA	Parts/ Consumables/Supplies	\$150,000.00*	441310
ICTA	Printing Services	\$19,500.00	323111
ICTA	Tires	\$90,000.00*	441320
ICTA	Uniform/Mat Services	\$42,000.00	812331
MCTA	Accounting Software Maintenance	\$7308.54	541619
MCTA	Auditing Services	\$79,175.85	541200
MCTA	Blue Def	\$6,577.69*	454310
MCTA	CDL Physicals/Drug Screens	\$10,962.81	621511

Subrecipient	Description	Amount	NAICS Code
MCTA	CPA Services	\$24,361.80	541200
MCTA	Dental Insurance	\$58,322.15	524114
MCTA	Elevator Service/Maintenance	\$10,962.81	238290
MCTA	Employee Assistance Program	\$4,567.84	561330
MCTA	Engineering Services	\$152,262.25	541330
MCTA	Eye Wash Station Servicing	\$3,654.27	423450
MCTA	Fire Protection Services	\$2,283.92	423850
MCTA	Fleet Maintenance Service Agreement	\$2,131.66	811198
MCTA	Fuel	\$679,694.22*	454310
MCTA	Generator Maintenance Contract	\$1,598.74	237130
MCTA	Health Insurance	\$877,024.80	524114
MCTA	IT Consulting	\$120,590.91	541619
MCTA	Janitorial Services	\$29,234.16	561720
MCTA	Legal Services	\$45,678.38	541110
MCTA	Life Insurance	\$45,678.38	524113
MCTA	Marketing	\$152,261.25	541613
MCTA	Payroll Services	\$21,925.62	541214
MCTA	Radio purchasing and service	\$36,542.70	811213
MCTA	Security Camera Maintenance Contract	\$1,827.14	561612
MCTA	Uniforms	\$91,356.75	812331
MCTA	Vision Insurance	\$8039.39	524114
MCTA	Workers Compensation Insurance	\$341,065.20	524114
Mid-Co.	Alarm Inspection	\$1,500.00	561612
Mid-Co.	Alarm System	\$10,000.00	561621
Mid-Co.	Auditing Services	\$40,000.00	541200
Mid-Co.	Computer Maintenance	\$30,000.00	811212
Mid-Co.	Copier Service	\$7,000.00	811212
Mid-Co.	Fire Extinguisher Inspection	\$2,000.00	423850
Mid-Co.	Fuel	\$171,000.00*	454310
Mid-Co.	Garage Tools	\$5,000.00	441310
Mid-Co.	Hydraulic Lift Inspection	\$1,000.00	811310

Subrecipient	Description	Amount	NAICS Code
Mid-Co.	Legal Services	\$25,000.00	541110
Mid-Co.	Printing Service	\$7,500.00	323111
Mid-Co.	Tires	\$9,000.00*	441320
Mid-Co.	Uniform Service	\$15,000.00	812331
Mid-Co.	Waste Disposal	\$7,500.00	562210
NCATA	ADA paratransit	\$85,000.00	485999
NCATA	Auditing Services	\$30,000.00	541200
NCATA	Fuel	\$360,000.00*	454310
NCATA	HVAC Service	\$10,000.00	238220
NCATA	Legal Services	\$50,000.00	541110
NCATA	Security of Farebox	\$5,000.00	561612
NCATA	Snow Removal/Lawn Care	\$65,000.00	561730
TAWC	Auditing Services	\$51,480.00	541200
TAWC	Bus Wash Maintenance	\$35,760.00	811192
TAWC	Copy Machine Service	\$3,690.00	811212
TAWC	Drug Screening	\$3,000.00	621511
TAWC	Elevator Maintenance	\$18,126.00	238290
TAWC	Geothermal Service	\$91,956.00	238220
TAWC	HVAC Services	\$67,844.00	238220
TAWC	Natural Gas Service	\$23,388.00	221120
TAWC	Security Services	\$2,064.00	561612
Venango	Auditing Services	\$45,000.00	541200
Venango	IT Services	\$30,000.00	811212
Venango	Legal Services	\$36,000.00	541110
Venango	Payroll Services	\$24,000.00	541214
Venango	Uniform Services	\$75,000.00	812331
WCTA	Auditing Services	\$37,500.00	541200
WCTA	Fuel	\$1,989,000.00*	454310
WCTA	Janitorial Services	\$45,000.00	561720
WCTA	Landscape Maintenance	\$5,000.00	561730
WCTA	Office Supplies	\$11,820.00*	453210
WCTA	Parts & Maintenance Supplies	\$780,000.00*	441310
WCTA	Printing	\$38,000.00	323111

Subrecipient	Description	Amount	NAICS Code
WCTA	Snow Removal	\$42,000.00	561730
WCTA	Tires	\$279,000.00*	441320

* Amount shown is DBE contracting opportunity based on regular dealer regulatory restrictions.

Table 2. Capital Projects

Subrecipient	Description	Amount	NAICS Code
ATA	Bradford Terminal	\$400,000.00	236220
ATA	Garage Equipment	\$41,000.00	441310
ATA	Gillig Repair/ Rebuilds	\$2,801,017.00	441310
ATA	DuBois Maintenance & Administration Facility	\$9,000,000.00	236220
CCTA	Facility Improvements- Ebensburg	\$800,000.00	236220
CCTA	Maintenance Equipment	\$65,000.00	441310
CCTA	Rural Facility Upgrades	\$936,850.000	236220
DuFast	Software-GPS Tracking System	\$221,000.00	811212
EMTA	Building Signs	\$40,000.00	236220
EMTA	Bus Wash	\$90,000.00	236220
EMTA	Garage and Office Building	\$4,000,000.00	236220
EMTA	Garage Bay Doors	\$15,000.00	236220
EMTA	Office Renovations	\$45,000.00	236220
EMTA	On-site Fueling & Fueling Management	\$32,000.00	811212
Erie	Phase II Facility Project	\$5,985,000.00	236220
Mid-County	File Server	\$27,000.00	541619
NCATA	Storage Building	\$558,242.00	236220
Schuylkill County	Digital Gas Pumps	\$35,000.00	236220
Schuylkill County	Engine Rebuilds	\$30,000.00	336310
Schuylkill County	Maintenance & Administration Facility	\$11,000,000.00	236220
Venango County	Multimodal Facility	\$10,000,000.00	236220
Warren County	Bus Wash Bay Rehab	\$458,860.00	236220

Table 3. Rail Projects

Project	Description	Amount	NAICS Code
Coatesville Station- Platforms & Elevators	Platform & Structures	\$24,000,000.00	236220
	Electrical	\$1,000,000.00	237130
	Construction Management & Inspection	\$3,000,000.00	541330
Downingtown Station	Design	\$4,500,000.00	541330
Downingtown Station – Platforms, Elevators, & New RR Bridge over SR 322	Bridge	\$35,000,000.00	237310
	Platform & Structures	\$20,000,000.00	236220
	Electrical	\$1,000,000.00	237130
	Construction Management & Inspection	\$7,000,000.00	541330
Harrisburg Train Station & Observation Roof	Contractor Bid Construction	\$1,700,000.00	236220
	Construction Management & Inspection	\$200,000.00	541330
Harrisburg Train Station 2 nd & 3 rd Floor Remodeling & Public Areas	Construction	\$14,000,000.00	236220
	Construction Management & Inspection	\$2,000,000.00	541330
Lancaster Parking Lot Paving	Contractor Bid Construction- Paving	\$800,000.00	237310
	Construction Management & Inspection	\$50,000.00	541330
Middletown Station- NS Track shift	Track Construction	\$2,900,000.00	237990
	Grading & Drainage	\$2,100,000.00	238910
	Structures	\$1,600,000.00	236220
	Construction Management & Inspection	\$800,000.00	541330
Middletown Station- Platforms & Elevators	Platform & Structures	\$24,000,000.00	236220
	Electrical	\$1,000,000.00	237130
	Construction Management & Inspection	\$3,000,000.00	541330
Parkessburg Station	Design	\$3,000,000.00	541330
SEPTA-Ardmore Station	Heavy & Civil Engineering Construction	\$3,278,000.00	237990
	Poured Concrete Foundation & Structure	\$2,659,000.00	238110
	Structural Steel & Precast Concrete	\$2,417,000.00	238120

Project	Description	Amount	NAICS Code
	Framing	\$224,000.00	238130
	Masonry	\$962,000.00	238140
	Glass & Glazing	\$16,000.00	238150
	Roofing	\$273,000.00	238160
	Painting	\$243,000.00	238320
	Site Prep	\$4,134,000.00	238910
	Specialty Trade	\$67,000.00	238990

Relative Availability of DBEs

PennDOT aggregated the dollar figures by NAICS codes to develop weightings for those codes. PennDOT then identified all firms from the bidders list performing work within the identified NAICS codes and compared those with the PAUCP listing to identify DBE firms. The following table shows the relative availability of DBEs within each NAICS code, the weights for each NAICS code, and the weighted ratios.

Table 4. DBE Relative Availability by NAICS Code

NAICS Code	DBE	EU	Ratio	Dollars	Dollar Weighting	Weighted Ratio
221210	0	7	0.0000	\$23,388.00	0.0001	0.0000
236220	12	111	0.1081	\$128,723,952.00	0.5786	0.0625
237130	1	6	0.1667	\$3,001,598.74	0.0135	0.0022
237310	12	65	0.1846	\$35,800,000.00	0.1609	0.0297
237990	5	99	0.0505	\$6,178,000.00	0.0278	0.0014
238110	1	10	0.1000	\$2,659,000.00	0.0120	0.0012
238120	2	14	0.1429	\$2,417,000.00	0.0109	0.0016
238130	0	11	0.0000	\$224,000.00	0.0010	0.0000
238140	3	26	0.1154	\$962,000.00	0.0043	0.0005
238150	1	14	0.0714	\$16,000.00	0.0001	0.0000
238160	2	43	0.0465	\$273,000.00	0.0012	0.0001
238220	5	91	0.0549	\$169,800.00	0.0008	0.0000
238290	0	25	0.0000	\$29,088.81	0.0001	0.0000
238320	6	32	0.1875	\$243,000.00	0.0011	0.0002
238910	5	57	0.0877	\$6,234,000.00	0.0280	0.0025
238990	3	94	0.0319	\$67,000.00	0.0003	0.0000
323111	2	12	0.1667	\$27,000.00	0.0001	0.0000

NAICS Code	DBE	EU	Ratio	Dollars	Dollar Weighting	Weighted Ratio
336310	0	0	0.0000	\$30,000.00	0.0000	0.0000
423450	0	32	0.0000	\$3,654.27	0.0000	0.0000
423850	0	52	0.0000	\$4,283.92	0.0000	0.0000
424720	3	62	0.0484	\$51,995.40	0.0002	0.0000
441310	0	137	0.0000	\$3,927,856.00	0.0177	0.0000
441320	0	6	0.0000	\$337,785.60	0.0015	0.0000
453210	0	17	0.0000	\$78.60	0.0000	0.0000
454310	0	3	0.0000	\$2,880,549.91	0.0129	0.0000
485113	0	15	0.0000	\$630,000.00	0.0028	0.0000
485999	0	9	0.0000	\$85,000.00	0.0004	0.0000
524113	0	6	0.0000	\$45,678.38	0.0002	0.0000
524114	0	7	0.0000	\$1,284,451.54	0.0058	0.0000
541110	2	66	0.0303	\$520,728.38	0.0023	0.0001
541200	0	0	0.0000	\$385,127.65	0.0017	0.0000
541214	0	1	0.0000	\$45,925.62	0.0002	0.0000
541330	27	209	0.1292	\$23,702,261.25	0.1065	0.0138
541613	2	28	0.0714	\$152,261.25	0.0007	0.0000
541614	0	12	0.0000	\$72,000.00	0.0003	0.0000
541619	0	0	0.0000	\$438,399.45	0.0020	0.0000
561330	0	0	0.0000	\$4,567.84	0.0000	0.0000
561612	1	20	0.0500	\$10,391.14	0.0000	0.0000
561621	0	41	0.0000	\$10,000.00	0.0000	0.0000
561720	11	122	0.0902	\$102,598.16	0.0005	0.0000
561730	2	58	0.0345	\$65,000	0.0003	0.0000
562210	0	0	0.0000	\$7,500.00	0.0000	0.0000
621511	0	10	0.0000	\$13,962.81	0.0001	0.0000
811192	0	32	0.0000	\$35,760.00	0.0002	0.0000
811198	0	24	0.0000	\$2,131.66	0.0000	0.0000
811212	0	26	0.0000	\$323,690.00	0.0015	0.0000
811213	0	20	0.0000	\$36,542.70	0.0002	0.0000
811310	0	119	0.0000	\$1,000.00	0.0000	0.0000
812331	0	13	0.0000	\$223,356.75	0.0010	0.0000

NAICS Code	DBE	EU	Ratio	Dollars	Dollar Weighting	Weighted Ratio
Total				\$222,482,365.81	1.0000	0.1159

Potential DBE Analysis

Next, an analysis of potential DBEs resulted in revised ratios by incorporating potential DBEs identified within PennDOT's local market area. PennDOT's approach to identifying potential DBEs uses a data-driven approach that expands this analysis beyond existing bidders lists and past participation to best reflect the actual availability of RWA DBE firms. The methodology considers interest and capability, incorporating the UCP and DBE directories as a subset of a larger list of potential DBEs. It also addresses latent barriers DBEs may encounter in contracting with PennDOT as required in 29 CFR 26.45 (d). The following steps outline the process for determining potential DBEs. Actual calculations are provided in the Technical Addendum:

1. Identify the primary NAICS code and location of each firm on the bidders list.
2. Identify the total number of firms (EU) in each jurisdiction within the local market for each NAICS code.
3. Identify the total number of DBE firms in each NAICS code by cross-referencing the UCP list.
4. Determine a measure of race neutrality by calculating the ratio of PennDOT non-DBE firms to all firms within each sub-market NAICS code profile. Absent discrimination, the ratio of DBE firms within PennDOT contracting should be identical to the ratio of non-DBE firms to all firms within the local market generally:

$$\frac{\text{PennDOT non-DBE firms}}{\text{All Firms}}$$

5. Identify the number of potential DBEs for each jurisdiction within the NAICS code's primary local market area using the listing of woman- and minority-owned firms from Hoover Online Database produced by Dun and Bradstreet.
6. Multiply the number of potential DBEs by the weight assigned to that jurisdiction in the local market analysis.
7. Add the number of existing PennDOT DBEs (PA and non-PA) and the weighted number of potential non-PA DBEs to calculate a total number of potential DBEs for each NAICS code.
8. In cases where PennDOT's DBE ratio is *lower* than that in the local market, the DBE ratio is adjusted upward to match the race neutral ratio in step 7. In cases where PennDOT's DBE ratio is *higher* than that in the local market, the expected DBE ratio remains at the higher level. No adjustment is made since this ratio reflects the actual number of PennDOT DBEs relative to all firms.

For NAICS codes where no bidders list firms were identified, the potential DBE calculation was not performed.

These calculations are shown in Tables 5-47.

Table 5. NAICS Code 221210 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	214	5	209	6	0	0.2	0.857	0.1435	0.1435	2.01%
NJ	91	3	88	1	0	0.1	0.143	0.0144	0.0144	0.20%
Total	305	8	297	7	0	0.3	1.000	0.1579	0.1579	2.21%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 6. NAICS Code 236220 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	225	262	1963	67	8	5.21	0.676	3.5226	11.5226	10.06%
AL	1,014	255	759	2	0	12.86	0.018	0.2317	0.2317	0.21%
AR	557	79	478	1	0	3.98	0.009	0.0359	0.0359	0.03%
CA	6,997	1,282	5,715	1	0	64.66	0.009	0.5825	0.5825	0.52%
DC	236	123	113	0	1	5.20	0.009	0.0469	1.0469	0.94%
DE	184	30	154	0	1	0.51	0.009	0.0046	1.0046	0.91%
FL	4,837	977	3,860	1	0	49.27	0.009	0.4439	0.4439	0.40%
GA	2,151	455	1,696	0	1	21.95	0.009	0.1977	1.1977	1.08%
LA	1,046	205	841	1	0	10.34	0.009	0.0931	0.0931	0.08%
MD	1,494	478	1,106	1	1	23.11	0.018	0.4163	1.4163	1.28%
MI	1,559	211	1,348	0	0	10.64	0.009	0.0959	0.0959	0.09%
NC	1,821	372	1,449	0	0	18.76	0.018	0.3380	0.3380	0.30%
NJ	1,828	308	1,520	17	0	15.53	0.153	2.3790	2.3790	2.14%
NY	3,387	562	2,825	4	0	28.34	0.036	1.0214	1.0214	0.92%
OH	1,935	254	1,681	0	0	12.81	0.009	0.1154	0.1154	0.10%
Total	31,271	5,853	25,418	99	12	283.2	1.000	9.5250	21.5250	17.86%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 7. NAICS Code 237130 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	103	12	91	3	0	0.66	0.500	0.3297	0.3297	5.21%
MA	40	4	36	1	1	(0.78)	0.167	(0.1300)	0.8700	14.50%
NJ	72	2	70	2	0	0.11	0.333	0.0366	0.0366	0.61%
Total	215	18	197	5	1	(0.01)	1.000	0.2363	1.2363	19.82%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 8. NAICS Code 237310 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	1,202	89	1,113	32	6	(1.76)	0.585	(1.0300)	4.9700	7.77%
CA	2,696	404	2,292	3	0	19.24	0.046	0.8879	0.8879	1.37%
CO	528	84	444	1	0	4.00	0.015	0.0615	0.0615	0.09%
DE	112	11	101	3	0	0.52	0.046	0.0242	0.0242	0.04%
IL	1,028	122	906	1	0	5.81	0.015	0.0894	0.0894	0.14%
KY	402	40	362	1	0	1.90	0.015	0.0293	0.0293	0.05%
MD	505	98	407	0	1	3.67	0.015	0.0564	1.0564	1.63%
MN	497	39	458	1	0	1.86	0.015	0.0286	0.0286	0.04%
MO	506	54	452	1	1	1.57	0.031	0.0484	1.0484	1.61%
NJ	856	100	756	8	4	0.76	0.185	0.1407	4.1407	6.37%
NY	1,715	171	1,544	1	0	8.14	0.015	0.1253	0.1253	0.19%
OH	826	99	727	1	0	4.71	0.015	0.0725	0.0725	0.11%
Total	10,873	1,311	9,562	53	12	50.43	1.000	0.5341	12.5341	19.13%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 9. NAICS Code 237990 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	207	20	187	46	3	6.95	0.500	3.4733	6.4733	6.38%
CA	739	114	625	1	0	56.70	0.010	0.5785	0.5785	0.59%
DC	6	2	4	0	1	(0.01)	0.010	(0.001)	0.9999	1.02%
DE	26	2	24	2	0	0.99	0.020	0.0203	0.0203	0.02%
FL	896	109	787	3	0	54.21	0.031	1.6594	1.6594	1.69%
IL	220	20	200	4	0	9.95	0.041	0.4060	0.4060	0.41%
MA	180	17	163	1	0	8.45	0.010	0.0863	0.0863	0.09%
MD	162	28	134	1	0	13.93	0.010	0.1421	0.1421	0.14%
MI	254	30	224	1	0	14.92	0.010	0.1522	0.1522	0.16%
NJ	257	30	227	24	0	14.92	0.245	3.6538	3.6538	3.73%
NY	323	36	287	3	0	17.90	0.031	0.5481	0.5481	0.56%
OH	225	22	203	5	0	10.94	0.051	0.5582	0.5582	0.57%
TN	121	13	108	1	0	6.47	0.010	0.0660	0.0660	0.07%
VA	252	38	214	1	1	17.90	0.020	0.3653	1.3653	1.39%
Total	3,868	481	3,387	93	5	234.21	1.000	11.7094	16.7094	15.23%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 10. NAICS Code 238110 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	1,194	71	1,123	6	1	(0.43)	0.700	(0.3017)	0.6983	7.20%
MD	555	111	444	1	0	0.89	0.100	0.0890	0.0890	0.89%
NJ	550	61	489	1	0	0.49	0.100	0.0489	0.0489	0.49%
NY	1,055	115	940	1	0	0.92	0.010	0.0922	0.0922	0.92%
Total	3,354	358	2,996	9	1	1.87	1.000	(0.0717)	0.9283	9.35%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 11. NAICS Code 238120 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	128	21	107	6	0	2.36	0.429	1.0093	1.0093	6.72%
MI	50	8	42	1	0	0.90	0.071	0.0641	0.0641	0.46%
NJ	84	20	64	4	2	0.24	0.429	0.1041	2.1041	15.03%
NY	130	43	87	1	0	4.82	0.071	0.3445	0.3445	2.46%
Total	392	92	300	12	4	8.32	1.000	1.5220	3.5220	22.69%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 12. NAICS Code 238130 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	1,815	76	1,739	9	0	0.48	0.818	0.3933	0.3933	3.45%
NJ	1,527	51	1,476	1	0	0.32	0.091	0.0293	0.0293	0.27%
VA	902	75	827	1	0	0.47	0.091	0.0431	0.0431	0.39%
Total	4,244	202	4,042	11	0	1.28	1.000	0.4568	0.4568	4.06%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 13. NAICS Code 238140 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	1,644	66	1,578	16	3	(2.04)	0.731	(1.4893)	1.5107	6.16%
MD	500	69	431	1	0	1.01	0.038	0.0387	0.0387	0.15%
MI	836	46	790	1	0	0.67	0.038	0.0258	0.0258	0.10%
NJ	988	77	911	4	0	1.12	.0154	0.1727	0.1727	0.66%
NY	1,590	154	1,436	1	0	2.24	0.038	0.0863	0.0863	0.33%
Total	5,558	412	5,146	23	3	3.01	1.000	(1.1659)	1.8341	7.39%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 14. NAICS Code 238150 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	200	19	181	7	1	0.36	0.571	0.2084	1.2084	8.50%
DE	23	4	19	1	0	0.29	0.071	0.0205	0.205	0.15%
IL	198	24	174	1	0	1.72	0.071	0.1231	0.1231	0.88%
NJ	156	24	132	4	0	1.72	0.286	0.4925	0.4925	3.52%
Total	577	52	325	13	1	4.10	1.000	0.8445	1.8445	12.43%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 15. NAICS Code 238160 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	1,718	87	1,631	27	2	0.19	0.674	0.1261	2.1261	4.93%
CA	4,491	297	4,194	1	0	7.47	0.023	0.1736	0.1736	0.40%
CT	576	28	548	1	0	0.70	0.023	0.0164	0.0164	0.04%
IL	1,349	90	1,259	1	0	2.26	0.023	0.0526	0.0526	0.12%
MA	824	38	786	1	0	0.96	0.023	0.0222	0.0222	0.05%
NJ	884	66	818	7	0	1.66	0.163	0.2071	0.2071	0.63%
NY	1,458	101	1,357	1	0	2.54	0.023	0.0590	0.0590	0.14%
OH	1,805	75	1,730	1	0	1.89	0.023	0.0438	0.0438	0.10%
TX	3,952	404	3,548	1	0	10.16	0.023	0.2362	0.2362	0.55%
Total	17,057	1,186	15,871	41	2	27.81	1.000	1.0001	3.0001	6.82%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 16. NAICS Code 238220 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	7,844	299	7,545	56	5	(1.59)	0.670	(1.0671)	3.9329	4.37%
AK	385	41	344	1	0	0.47	0.011	0.0051	0.0051	0.01%
CA	22,173	1,346	20,827	2	0	15.34	0.022	0.3372	0.3371	0.37%
CT	3,138	120	3,018	1	0	1.37	0.011	0.0150	0.0150	0.02%
DE	266	38	228	2	0	0.43	0.022	0.0095	0.0095	0.01%
IL	6,371	420	5,951	1	0	4.79	0.011	0.0526	0.0526	0.06%
MD	3,635	339	3,296	1	0	3.86	0.011	0.0425	0.0425	0.05%
MI	4,940	237	4,703	1	0	2.70	0.011	0.0297	0.0297	0.03%
NJ	6,315	338	5,977	11	0	3.85	0.121	0.4657	0.4657	0.51%
NY	9,823	539	9,284	6	0	6.14	0.066	0.4051	0.4051	0.45%
OH	5,756	271	5,485	3	0	3.09	0.033	0.1018	0.1018	0.11%
VA	4,569	404	4,165	1	0	4.60	0.011	0.0506	0.0506	0.06%
Total	75,215	4,392	70,823	86	5	45.06	1.000	0.4477	5.4477	5.96%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 17. NAICS Code 238290 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	130	13	117	14	0	2.78	0.560	1.5556	1.5556	5.86%
IN	77	8	69	1	0	1.71	0.040	0.0684	0.0684	0.27%
MD	53	12	41	1	0	2.56	0.040	0.1026	0.1026	0.41%
NJ	106	15	91	9	0	3.21	0.360	1.1538	1.1538	4.62%
Total	366	48	318	25	0	10.26	1.000	2.8803	2.8803	10.33%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 18. NAICS Code 238320 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	3,503	172	3,331	21	6	(4.66)	0.844	(3.9297)	2.0703	7.38%
CA	11,858	731	11,127	1	0	5.71	0.031	0.1783	0.1783	0.56%
DE	337	18	319	2	0	0.14	0.063	0.0088	0.0088	0.03%
NJ	2,814	154	2,660	2	0	1.20	0.063	0.0751	0.0751	0.23%
Total	18,512	1,075	17,437	26	6	2.39	1.000	(3.6675)	2.3325	8.23%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17.

Table 19. NAICS Code 238910 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	2,838	169	2,669	40	3	0.29	0.754	0.2207	3.2207	5.63%
CA	2,285	329	1,956	1	0	6.41	0.018	0.1125	0.1125	0.20%
NC	897	135	762	1	0	2.63	0.018	0.0461	0.0461	0.08%
NJ	931	81	850	8	2	(0.42)	0.175	(0.0740)	1.9260	3.38%
VA	1,093	152	941	1	0	2.96	0.018	0.0520	0.0520	0.09%
WI	1,097	62	1,035	1	0	1.21	0.018	0.0212	0.0212	0.04%
Total	9,141	928	8,213	52	5	13.08	1.000	0.3785	5.3785	9.37%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 20. NAICS Code 238990 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	5,960	287	5,673	55	3	1.60	0.617	0.9895	3.9895	4.20%
CA	12,342	926	11,416	1	0	14.85	0.011	0.1580	0.1580	0.17%
CO	2,573	228	2,345	1	0	3.66	0.011	0.0389	0.0389	0.04%
DC	102	34	68	1	0	0.55	0.011	0.0058	0.0058	0.01%
DE	524	25	499	2	0	0.40	0.021	0.0085	0.0085	0.01%
FL	17,679	851	16,828	1	0	13.65	0.011	0.1452	0.1452	0.15%
MA	2,969	150	2,819	2	0	2.41	0.021	0.0512	0.0512	0.05%
MD	2,982	329	2,653	2	0	5.28	0.021	0.1123	0.1123	0.12%
MN	2,194	127	2,067	1	0	2.04	0.011	0.0217	0.0217	0.02%
NJ	4,415	255	4,160	14	0	4.09	0.149	0.6092	0.6092	0.65%
NY	8,083	485	7,598	2	0	7.78	0.021	0.1655	0.1655	0.18%
OH	3,704	228	3,476	3	0	3.66	0.032	0.1167	0.1167	0.12%
TN	2,295	165	2,130	2	0	2.65	0.021	0.0563	0.0563	0.06%
VA	534	33	501	4	0	0.53	0.043	0.0225	0.0225	0.02%
Total	66,356	4,123	62,233	91	3	63.14	1.000	2.5015	5.5015	5.70%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 21. NAICS Code 323111 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	1,913	271	1,642	5	2	(0.35)	0.583	(0.2039)	1.7961	15.23%
CA	6,874	1,183	5,691	1	0	7.20	0.083	0.6004	0.6004	5.00%
NJ	1,602	227	1,375	1	0	1.38	0.083	0.1152	0.1152	0.96%
TN	852	124	728	1	0	0.76	0.083	0.0629	0.0629	0.52%
TX	3,761	710	3,051	1	0	4.32	0.083	0.0629	0.0629	0.52%
WI	925	102	823	1	0	0.62	0.083	0.3603	0.3603	0.43%
Total	15,927	2,617	13,310	10	2	13.94	1.000	0.9867	2.9867	23.00%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 22. NAICS Code 423450 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	828	113	715	8	0	5.06	0.250	1.2643	1.2643	3.80%
IL	756	159	597	4	0	7.12	0.125	0.8895	0.8895	2.78%
KS	193	21	172	1	0	0.94	0.031	0.0294	0.0294	0.09%
MD	369	110	259	2	0	4.92	0.063	0.3077	0.3077	0.96%
MO	381	61	320	1	0	2.73	0.031	0.0853	0.0853	0.27%
NC	558	118	440	1	0	5.28	0.031	0.1650	0.1650	0.52%
NJ	600	103	497	2	0	4.61	0.063	0.2881	0.2881	0.90%
NY	1,186	224	962	4	0	10.03	0.125	1.2531	1.2531	3.92%
OH	650	94	556	3	0	4.21	0.094	0.3994	0.3994	1.23%
RI	60	7	53	1	0	0.31	0.031	0.0098	0.0098	0.03%
TX	1,750	432	1,318	2	0	19.33	0.063	1.2084	1.2084	3.78%
WI	257	23	234	2	0	1.03	0.063	0.0643	0.0643	0.20%
WV	80	11	69	1	0	0.49	0.031	0.0154	0.0154	0.05%
Total	7,668	1,476	6,192	32	0	66.06	1.000	5.9748	5.9748	15.73%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 23. NAICS Code 423850 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	696	100	596	32	0	8.72	0.615	5.3691	5.3691	9.36%
FL	1,475	238	1,237	2	0	20.77	0.038	0.7987	0.7987	1.54%
KY	188	44	144	1	0	3.84	0.019	0.0738	0.0738	0.14%
MA	368	32	336	1	0	2.79	0.019	0.0537	0.0537	0.10%
MD	353	70	283	2	0	6.11	0.038	0.2349	0.2349	0.45%
NJ	594	109	485	11	0	9.51	0.212	2.0117	2.0117	3.87%
OH	619	82	537	1	0	7.15	0.019	0.1376	0.1376	0.26%
TN	360	59	301	1	0	5.15	0.019	0.0990	0.0990	0.19%
WA	292	44	248	1	0	3.84	0.019	0.0738	0.0738	0.14%
Total	4,945	778	4,167	52	0	67.88	1.000	8.8523	8.8523	14.55%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 24. NAICS Code 424720 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	457	25	432	30	3	0.41	0.532	0.2205	3.2205	5.18%
AR	145	6	139	1	0	0.82	0.016	0.0132	0.0132	0.02%
DE	35	0	35	1	0	0.00	0.016	0.0000	0.0000	0.00%
GA	329	30	299	2	0	4.10	0.032	0.1322	0.1322	0.21%
IN	276	11	265	1	0	1.50	0.016	0.0242	0.0242	0.04%
MA	233	17	216	1	0	2.32	0.016	0.0374	0.0374	0.06%
MD	155	18	137	1	0	2.46	0.016	0.0397	0.0397	0.06%
MI	422	26	396	1	0	3.55	0.016	0.0573	0.0573	0.09%
MO	238	21	217	1	0	2.87	0.016	0.0463	0.0463	0.07%
NJ	272	19	253	11	0	2.59	0.177	0.4604	0.4604	0.74%
NY	632	33	599	3	0	4.51	0.048	0.2181	0.2181	0.35%
OH	449	30	419	2	0	4.10	0.032	0.1322	0.1322	0.21%
OK	313	16	297	1	0	2.19	0.016	0.0352	0.0352	0.06%
TX	1,939	126	1,813	2	0	17.21	0.032	0.5551	0.5551	0.90%
WI	229	7	222	1	0	0.96	0.016	0.0154	0.0154	0.02%
Total	6,124	385	5,739	59	3	49.17	1.000	1.9872	4.9872	7.79%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 25. NAICS Code 441310 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	1,551	60	1,491	59	0	5.51	0.431	2.3742	2.3742	1.70%
AL	810	31	779	1	0	2.85	0.007	0.0208	0.0208	0.02%
CA	4,735	375	4,360	4	0	34.46	0.029	1.0060	1.0060	0.73%
CT	382	9	373	2	0	0.83	0.015	0.0121	0.0121	0.01%
DE	110	2	108	2	0	0.18	0.015	0.0027	0.0027	0.00%
FL	2,645	149	2,496	4	0	13.69	0.029	0.3997	0.3997	0.29%
GA	1,464	77	1,387	3	0	7.08	0.022	0.1549	0.1549	0.11%
IL	1,357	52	1,305	5	0	4.78	0.036	0.1744	0.1744	0.13%
IN	968	26	942	1	0	2.39	0.007	0.0174	0.0174	0.01%
KS	446	20	426	1	0	1.84	0.007	0.0134	0.0134	0.01%
MA	681	24	657	1	0	2.21	0.007	0.0161	0.0161	0.01%
MD	545	36	509	4	0	3.31	0.029	0.0966	0.0966	0.07%
MI	1,500	48	1,452	4	0	4.41	0.029	0.1288	0.1288	0.09%
MN	673	19	654	2	0	1.75	0.015	0.0255	0.0255	0.02%
MO	834	14	820	1	0	1.29	0.007	0.0094	0.0094	0.01%
NC	1,405	53	1,352	3	0	4.87	0.022	0.1066	0.1066	0.08%
NH	235	3	232	1	0	0.28	0.007	0.0020	0.0020	0.00%
NJ	787	37	750	22	0	3.40	0.161	0.5459	0.5459	0.40%
NY	1,555	67	1,488	5	0	6.16	0.036	0.2247	0.2247	0.16%
OH	1,573	62	1,511	4	0	5.70	0.029	0.1663	0.1663	0.12%
OK	564	24	540	1	0	2.21	0.007	0.0161	0.0161	0.01%
SC	696	32	664	1	0	2.94	0.007	0.0215	0.0215	0.02%
TN	1,018	37	981	1	0	3.40	0.007	0.0248	0.0248	0.02%
TX	3,806	253	3,553	2	0	23.25	0.015	0.3394	0.3394	0.25%
VA	966	63	903	1	0	5.79	0.007	0.0423	0.0423	0.03%
WA	832	48	784	1	0	4.41	0.007	0.0322	0.0322	0.02%
WI	619	18	601	1	0	1.65	0.007	0.0121	0.0121	0.01%
Total	31,206	1,579	29,627	137	0	145.09	1.000	3.6117	3.6117	2.57%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 26. NAICS Code 441320 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	1,551	60	1,491	5	0	0.24	0.833	0.2012	0.2012	3.24%
NJ	787	37	750	1	0	0.15	0.167	0.0248	0.0248	0.41%
Total	2,338	97	2,241	6	0	0.39	1.000	0.2260	0.2260	3.63%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 27. NAICS Code 453210 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	259	27	232	9	0	1.98	0.529	1.0474	1.0474	5.80%
CA	1,023	192	831	1	0	14.07	0.059	0.8276	0.8276	4.87%
CT	101	24	77	1	0	1.76	0.059	0.1034	0.1034	0.61%
DE	18	1	17	1	0	0.07	0.059	0.0043	0.0043	0.03%
KY	80	14	66	1	0	1.03	0.059	0.0603	0.0603	0.35%
NJ	239	35	204	2	0	2.56	0.118	0.3017	0.3017	1.77%
NY	571	78	493	1	0	5.72	0.059	0.3362	0.3362	1.98%
OH	268	44	224	1	0	3.22	0.059	0.1897	0.1897	1.12%
Total	2,559	415	2,144	17	0	30.41	1.000	2.8707	2.8707	14.45%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 28. NAICS Code 454310 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	1,913	271	1,642	3	0	0.50	1.000	0.4951	0.4951	14.2%
Total	1,913	271	1,642	3	0	0.50	1.000	0.4951	0.4951	14.2%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 29. NAICS Code 485113 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	63	4	59	2	0	1.02	0.133	0.1356	0.1356	0.90%
CO	19	6	13	1	0	1.53	0.067	0.1017	0.1017	0.68%
CT	20	4	16	1	0	1.02	0.067	0.0678	0.0678	0.45%
GA	20	3	16	1	0	0.76	0.067	0.0508	0.0508	0.34%
IL	60	12	48	3	0	3.05	0.200	0.6102	0.6102	4.07%
LA	19	1	18	1	0	0.25	0.067	0.0169	0.0169	0.11%
MD	32	17	15	1	0	4.32	0.067	0.2881	0.2881	1.92%
NH	7	1	6	1	0	0.25	0.067	0.0169	0.0169	0.11%
NJ	36	5	31	2	0	1.27	0.133	0.1695	0.1695	1.13%
NY	105	8	97	1	0	2.03	0.067	0.1356	0.1356	0.90%
TX	70	15	55	1	0	3.81	0.067	0.2542	0.2542	1.69%
Total	451	76	375	15	0	19.32	1.000	1.8475	1.8475	10.97%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 30. NAICS Code 485999 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	195	30	165	2	0	1.64	0.222	0.3636	0.3636	3.88%
CA	795	126	669	2	0	6.87	0.222	1.5273	1.5273	16.97%
IL	275	54	221	1	0	2.95	0.111	0.3273	0.3273	3.64%
LA	93	15	78	1	0	0.82	0.111	0.0909	0.0909	1.01%
NJ	269	56	213	1	0	3.05	0.111	0.3394	0.3394	3.77%
NY	624	73	551	2	0	3.98	0.222	0.8848	0.8848	9.83%
Total	2,251	354	1,897	9	0	19.31	1.000	3.5333	3.5333	28.19%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 31. NAICS Code 524113 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	245	5	240	3	0	0.13	0.500	0.0625	0.0625	1.03%
MA	144	1	143	1	0	0.03	0.167	0.0042	0.0042	0.07%
NC	249	17	232	1	0	0.43	0.167	0.0708	0.0708	1.18%
NJ	176	4	172	1	0	0.10	0.167	0.0167	0.0167	0.28%
Total	814	22	547	6	0	0.68	1.000	0.1542	0.1542	2.51%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 32. NAICS Code 454310 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	72	11	63	1	0	0.18	1.000	0.1803	0.1803	15.28%
Total	72	11	63	1	0	0.18	1.000	0.1803	0.1803	15.28%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 33. NAICS Code 541330 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	3,572	434	3,138	96	16	9.17	0.536	4.9148	20.9148	9.78%
AZ	2,260	332	1,928	1	0	19.26	0.005	0.0921	0.0921	0.04%
CA	15,322	2,429	12,893	9	1	139.88	0.048	6.6928	7.6928	3.68%
CT	1,492	143	1,349	1	0	8.29	0.005	0.0397	0.0397	0.02%
DC	408	157	251	1	0	9.11	0.005	0.0436	0.0436	0.02%
DE	314	48	266	2	0	2.78	0.010	0.0266	0.0266	0.01%
FL	7,834	1,384	6,450	2	0	80.27	0.010	0.7681	0.7681	0.37%
GA	26,868	455	26,413	1	1	25.39	0.010	0.2430	1.2430	0.59%
IL	2,651	374	2,277	5	0	21.69	0.024	0.5189	0.5189	0.25%
MA	2,600	277	2,323	2	0	16.07	0.010	0.1537	0.1537	0.07%
MD	2,835	779	2,056	11	1	44.18	0.057	2.5367	3.5367	1.69%
MI	3,020	348	2,672	1	0	20.18	0.005	0.0966	0.0966	0.05%
MO	1,286	158	1,128	1	0	9.16	0.005	0.0438	0.0438	0.02%
NJ	2,656	418	2,238	27	7	17.24	0.163	2.8052	9.8052	4.69%
NY	3,874	526	3,348	10	0	30.51	0.048	1.4597	1.4597	0.70%
OH	2,883	357	2,526	5	1	19.71	0.029	0.5657	1.5657	0.75%
RI	304	34	270	1	0	1.97	0.005	0.0094	0.0094	0.00%

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
TX	7,915	1,495	6,420	2	0	86.71	0.010	0.8297	0.8297	0.40%
VA	3,843	903	2,940	3	0	52.37	0.014	0.7518	0.7518	0.36%
WV	314	30	284	1	0	1.74	0.005	0.0083	0.0083	0.00%
Total	92,251	8,619	81,170	182	27	615.68	1.000	22.6003	49.6003	21.42%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 34. NAICS Code 541613 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	1,751	202	1,542	10	2	1.52	0.429	0.6531	2.6531	9.26%
CT	918	94	824	2	0	1.58	0.071	0.1132	0.1132	0.40%
DE	130	23	107	1	1	0.39	0.036	0.0139	0.0139	0.05%
IL	1,963	275	1,688	2	0	4.64	0.036	0.1656	0.1656	0.59%
MD	933	195	738	1	0	3.29	0.071	0.2349	0.2349	0.84%
MI	1,300	149	1,151	2	0	2.51	0.036	0.0897	0.0897	0.32%
MN	1,173	127	1,046	2	0	2.14	0.071	0.1530	0.1530	0.55%
NJ	1,568	212	1,356	1	0	3.57	0.071	0.2553	0.2553	0.91%
NY	3,174	404	2,770	2	0	6.81	0.036	0.2433	0.2433	0.87%
OH	1,473	169	1,304	2	0	2.85	0.071	0.2035	0.2035	0.73%
WA	1,112	152	960	1	0	2.56	0.071	0.1831	0.1831	0.65%
Total	15,495	2,009	13,486	26	2	31.87	1.000	2.3086	4.3086	14.22%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 35. NAICS Code 541614 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	137	15	122	6	0	1.48	0.222	0.3279	0.3279	2.66%
AL	53	16	37	1	0	1.57	0.222	0.3497	0.3497	2.91%
MD	97	30	67	1	0	2.95	0.111	0.3279	0.3279	2.73%
NJ	134	15	119	2	0	1.48	0.111	0.1639	0.1639	1.37%
NY	166	24	142	1	0	2.36	0.111	0.2623	0.2623	2.19%
VA	134	37	97	1	0	3.64	0.222	0.8087	0.8087	6.74%
Total	721	137	584	6	0	13.48	1.000	2.2404	2.2404	15.73%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 36. NAICS Code 561612 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	492	52	440	13	1	1.25	0.700	0.8718	1.8718	8.97%
AL	176	29	147	1	0	1.25	0.050	0.0626	0.0626	0.31%
FL	2,254	231	2,023	1	0	9.98	0.050	0.4988	0.4988	2.49%
NJ	401	36	365	2	0	1.55	0.100	0.1555	0.1555	0.78%
TX	1,566	252	1,314	1	0	10.88	0.050	0.5441	0.5441	2.72%
VA	576	140	436	1	0	6.05	0.050	0.3023	0.3023	1.5%
Total	5,464	740	4,725	19	1	30.95	1.000	2.4350	3.4350	15.31%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 37. NAICS Code 561621 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	456	51	405	26	0	5.16	0.634	3.2741	3.2741	7.40%
AZ	269	35	234	1	0	3.54	0.024	0.0864	0.0864	0.21%
CA	1,797	196	1,601	1	0	19.84	0.024	0.4840	0.4840	1.18%
CT	159	15	144	1	0	1.52	0.024	0.0370	0.0370	0.09%
IL	321	48	273	1	0	4.86	0.024	0.1185	0.1185	0.29%
MD	438	122	316	1	0	12.35	0.024	0.3012	0.3012	0.73%
MI	247	22	225	1	0	2.23	0.024	0.0543	0.0543	0.13%
MO	216	18	198	1	0	1.82	0.024	0.0444	0.0444	0.11%
NJ	460	44	416	8	0	4.45	0.195	0.8691	0.8691	2.12%
Total	4,363	551	3,812	41	0	55.78	1.000	5.2691	5.2691	11.39%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 38. NAICS Code 561720 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	3,637	532	3,105	71	10	9.02	0.664	5.9876	15.9876	12.49%
CA	12,193	1,872	10,321	2	0	66.92	0.016	1.0971	1.0971	0.90%
DE	383	91	292	2	0	3.25	0.016	0.0533	0.0533	0.04%
FL	13,998	1,858	12,140	1	0	66.42	0.008	0.5444	0.5444	0.45%
IL	3,161	561	2,600	1	0	20.06	0.008	0.1644	0.1644	0.23%
IN	1,677	274	1,403	1	0	9.80	0.008	0.0803	0.0803	0.07%
KS	644	144	500	1	0	5.15	0.008	0.0422	0.0422	0.03%
KY	1,047	166	881	2	0	5.93	0.016	0.0973	0.0973	0.08%
MA	1,796	255	1,541	1	0	9.12	0.008	0.0747	0.0747	0.06%
MD	2,368	759	1,609	2	0	27.13	0.016	0.2913	0.2913	0.24%
MI	3,278	497	2,781	2	0	17.77	0.016	0.2913	0.2913	0.24%
NC	3,344	767	2,577	2	0	27.42	0.016	0.4495	0.4495	0.37%
NJ	3,047	463	2,584	10	1	15.55	0.090	1.4022	2.4022	1.97%
NY	4,506	606	3,900	7	0	21.66	0.057	1.2430	1.2430	1.02%
OH	3,412	550	2,862	5	0	19.66	0.041	0.8058	0.8058	0.66%
TX	7,282	1,524	5,758	1	0	54.48	0.008	0.4466	0.4466	0.37%
Total	65,773	10,919	54,854	111	11	379.34	1.000	13.2245	24.2245	17.91%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 39. NAICS Code 561730 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	5,244	226	5,018	26	0	0.52	0.845	0.4411	2.4411	4.18%
CA	9,185	952	8,233	1	0	10.62	0.017	0.1832	0.1832	0.32%
FL	18,437	1,076	17,361	1	0	12.01	0.017	0.2070	0.2070	0.36%
MI	5,381	262	3,529	1	0	2.92	0.017	0.0504	0.0504	0.09%
NJ	3,726	197	3,529	1	0	2.20	0.086	0.1895	0.1895	0.33%
TX	7,979	735	7,244	1	0	8.20	0.017	0.1414	0.1414	0.24%
Total	49,952	3,222	46,504	56	2	36.48	1.000	1.2127	3.2127	5.43%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 40. NAICS Code 621511 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	735	35	700	4	0	0.45	0.400	0.1800	0.1800	1.77%
CA	2,054	155	1,899	1	0	1.99	0.100	0.1993	0.1993	1.99%
DC	27	4	23	1	0	0.05	0.100	0.0051	0.0051	0.05%
GA	404	44	360	1	0	0.57	0.100	0.0566	0.0566	0.57%
MD	383	32	351	1	0	0.41	0.100	0.0411	0.0411	0.41%
MS	83	13	70	1	0	0.17	0.100	0.0167	0.0167	0.17%
NJ	582	26	556	1	0	(0.67)	0.100	(0.0666)	0.9334	9.33%
Total	4,268	309	3,959	56	2	2.97	1.000	0.4323	1.4323	13.73%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 41. NAICS Code 811192 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	1,104	52	1,052	19	0	1.58	0.594	0.9392	0.9392	2.85%
CA	3,256	194	3,062	4	0	5.90	0.125	0.7376	0.7376	2.31%
IN	549	21	528	1	0	0.64	0.031	0.0200	0.0200	0.06%
KY	352	16	336	1	0	0.49	0.031	0.0152	0.0152	0.05%
MD	522	33	489	1	0	1.00	0.031	0.0314	0.0314	0.10%
MI	1,025	46	979	1	0	1.40	0.031	0.0314	0.0314	0.10%
NC	822	40	782	1	0	1.22	0.031	0.0380	0.0380	0.12%
NJ	837	35	802	2	0	1.06	0.063	0.0665	0.0665	0.21%
NY	1,113	48	1,065	1	0	1.46	0.031	0.0456	0.0456	0.14%
TN	534	26	508	1	0	0.79	0.031	0.0247	0.0247	0.08%
Total	10,114	511	9,603	32	0	15.54	1.000	1.9629	1.9620	5.78%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 42. NAICS Code 811198 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	832	25	807	16	0	0.74	0.667	0.4957	0.4957	2.02%
FL	1,331	83	1,248	1	0	2.47	0.042	0.1029	0.1029	0.43%
KS	148	3	145	1	0	0.09	0.042	0.0037	0.0037	0.02%
MD	296	16	280	2	0	0.48	0.083	0.0397	0.0397	0.17%
NJ	318	14	304	1	0	0.42	0.042	0.0173	0.0173	0.07%
OH	650	22	628	1	0	0.65	0.042	0.0273	0.0273	0.11%
VA	383	39	344	1	0	1.16	0.042	0.0483	0.0483	0.20%
WI	256	5	251	1	0	0.15	0.042	0.0062	0.0062	0.03%
Total	4,214	207	4,007	24	0	6.16	1.000	0.7410	0.7410	3.00%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 43. NAICS Code 811212 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	514	35	479	19	0	2.05	0.679	1.3883	1.3883	4.72%
MD	319	102	217	1	0	5.96	0.036	0.2129	0.2129	0.76%
NJ	431	55	376	5	0	3.22	0.179	0.5741	0.5741	2.05%

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
NY	710	85	625	1	0	4.97	0.036	0.1775	0.1775	0.63%
UT	108	7	101	2	0	0.41	0.071	0.0292	0.0292	0.10%
Total	2,082	284	1,798	28	0	16.60	1.000	2.3820	2.3820	7.84%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 44. NAICS Code 811213 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	44	4	40	10	0	2.00	0.500	1.0000	1.0000	4.76%
AZ	24	4	20	1	0	2.00	0.050	0.1000	0.1000	0.50%
DE	7	0	7	1	0	0.00	0.050	0.0000	0.0000	0.00%
IL	45	1	44	3	0	0.50	0.150	0.0750	0.0750	0.38%
MO	20	4	16	1	0	2.00	0.050	0.1000	0.1000	0.50%
NJ	25	0	25	1	0	0.00	0.050	0.0000	0.0000	0.00%
NY	65	6	59	2	0	3.00	0.100	0.3000	0.3000	1.50%
WA	35	1	34	1	0	0.50	0.050	0.0250	0.0250	0.13%
Total	241	16	185	20	0	8.00	1.000	1.5000	1.5000	6.98%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 45. NAICS Code 811310 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	1,701	67	1,634	57	0	4.88	0.479	2.3372	2.3372	1.93%
AZ	708	62	646	2	0	4.52	0.017	0.0759	0.0759	0.06%
CA	4,311	311	3,900	2	0	29.93	0.017	0.5031	0.5031	0.42%
CO	867	50	817	1	0	3.64	0.008	0.0306	0.0306	0.03%
CT	473	30	443	1	0	2.18	0.008	0.0184	0.0184	0.02%
DE	100	2	98	1	0	0.15	0.008	0.0012	0.0012	0.00%
FL	3,596	279	3,317	1	0	20.32	0.008	0.1707	0.1707	0.14%
GA	1,066	77	989	1	0	5.61	0.008	0.0471	0.0471	0.04%
IL	1,425	90	1,335	4	0	6.55	0.034	0.2203	0.2203	0.19%
IN	971	36	935	2	0	2.62	0.017	0.0441	0.0441	0.04%
MA	752	28	724	2	0	2.04	0.017	0.0343	0.0343	0.03%
MD	591	48	543	3	0	3.50	0.025	0.0881	0.0881	0.07%
MI	1,574	75	1,499	2	0	5.46	0.017	0.0918	0.0918	0.08%
MO	825	38	787	1	0	2.77	0.008	0.0233	0.0233	0.02%
NC	1,301	87	1,214	2	0	6.34	0.017	0.1065	0.1065	0.09%
NJ	697	40	657	18	0	2.91	0.151	0.4406	0.4406	0.37%
NY	1,465	95	1,370	5	0	6.92	0.042	0.2907	0.2907	0.24%
OH	1,582	73	1,509	5	0	5.32	0.042	0.2234	0.2234	0.19%
OK	714	49	665	1	0	3.57	0.008	0.0300	0.0300	0.03%
TN	670	44	626	1	0	3.20	0.008	0.0269	0.0269	0.02%
TX	4,276	338	3,938	3	0	24.62	0.025	0.6206	0.6206	0.52%
VA	872	102	770	3	0	7.43	0.025	0.1873	0.1873	0.16%
WI	1,011	47	964	1	0	3.42	0.008	0.0288	0.0288	0.02%
Total	30,840	2,106	28,734	119	0	153.37	1.000	5.5649	5.5649	4.47%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

Table 46. NAICS Code 812331 Potential DBE Calculation

State	All Firms	Wom. & Min.-Owned Firms	All Non-wom. & min. Owned Firms	Bid List Non-DBEs	Bid List DBEs	Unwtd. Pot. New DBEs	Wt.	Wtd. Pot. DBEs	Total DBEs	Total DBEs as % of EU
PA	77	5	72	3	0	0.90	0.231	0.2083	0.2083	1.58%
DE	7	1	6	1	0	0.18	0.077	0.0139	0.0139	0.11%
MI	69	4	65	1	0	0.72	0.077	0.0556	0.0556	0.43%
MO	37	6	31	1	0	1.08	0.077	0.0833	0.0833	0.64%
NJ	72	3	69	4	0	0.54	0.308	0.1667	0.1667	1.28%
NY	167	17	150	3	0	3.07	0.231	0.7083	0.7083	5.45%
Total	429	36	393	13	0	6.50	1.000	1.2361	1.2361	8.68%

Numbers are rounded for display purposes.

Sources for All firms and Women & Minority-owned Firms: Hoover Database as of 6/16/17

STEP-1 Ratio

After adjusting the DBE and EU counts for potential DBEs, PennDOT calculated the step-1 ratio.

Table 47. Step-1 Ratio Calculation

NAICS Code	Anticipated Contract Expenditures	Expenditure Weight	DBE Ratio	Weighted Ratio
221210	\$23,388.00	0.0001	0.0221	0.0000
236220	\$128,723,952.00	0.5786	0.1786	0.1033
237130	\$3,001,598.74	0.0135	0.1982	0.0027
237310	\$35,800,000.00	0.1609	0.1913	0.0308
237990	\$6,178,000.00	0.0278	0.1509	0.0042
238110	\$2,659,000.00	0.0120	0.1000	0.0012
238120	\$2,417,000.00	0.0109	0.2269	0.0025
238130	\$224,000.00	0.0010	0.0406	0.0000
238140	\$962,000.00	0.0043	0.1154	0.0005
238150	\$16,000.00	0.0001	0.1243	0.0000
238160	\$273,000.00	0.0012	0.0682	0.0001
238220	\$169,800.00	0.0008	0.0596	0.0000
238290	\$29,088.81	0.0001	0.1033	0.0000
238320	\$243,000.00	0.0011	0.1875	0.0002
238910	\$6,234,000.00	0.0280	0.0937	0.0026
238990	\$67,000.00	0.0003	0.0570	0.0000
323111	\$27,000.00	0.0001	0.2300	0.0000
336310	\$30,000.00	0.0001	0.0000	0.0000
423450	\$3,654.27	0.0000	0.1573	0.0000
423850	\$4,283.92	0.0000	0.1455	0.0000
424720	\$51,995.40	0.0002	0.0779	0.0000
441310	\$3,927,856.00	0.0177	0.0419	0.0007
441320	\$337,785.60	0.0015	0.0363	0.0001
453210	\$78.60	0.0000	0.1445	0.0000
454310	\$2,880,549.91	0.0129	0.1417	0.0018
485113	\$630,000.00	0.0028	0.1097	0.0003
485999	\$85,000.00	0.0004	0.2819	0.0001
524113	\$45,678.38	0.0002	0.0251	0.0000
524114	\$1,284,451.54	0.0058	0.0582	0.0003
541110	\$520,728.38	0.0023	0.0715	0.0002

541200	\$385,127.65	0.0017	0.0000	0.0000
541214	\$45,925.62	0.0002	0.1528	0.0000
541330	\$23,702,261.25	0.1065	0.2142	0.0228
541613	\$152,261.25	0.0007	0.1422	0.0001
541614	\$72,000.00	0.0003	0.1573	0.0001
541619	\$438,399.45	0.0020	0.0000	0.0000
561330	\$4,567.84	0.0000	0.0000	0.0000
561612	\$10,391.14	0.0000	0.1531	0.0000
561621	\$10,000.00	0.0000	0.1139	0.0000
561720	\$102,598.16	0.0005	0.1791	0.0001
561730	\$65,000.00	0.0003	0.0543	0.0000
562210	\$7,500.00	0.0000	0.0000	0.0000
621511	\$13,962.81	0.0001	0.1373	0.0000
811192	\$35,760.00	0.0002	0.0578	0.0000
811198	\$2,131.66	0.0000	0.0300	0.0000
811212	\$323,690.00	0.0015	0.0839	0.0001
811213	\$36,542.70	0.0002	0.0698	0.0000
811310	\$1,000.00	0.0000	0.0447	0.0000
812331	\$223,356.75	0.0010	0.0868	0.0001
Total	\$222,482,365.81	1.0000		0.1751

STEP-2 ADJUSTMENTS

Adjusting for Past Participation

The Department adjusted the step-1 ratio according to its past attainment. The step-1 ratio was averaged with the Department's median past attainment for the last five years as shown in the table below.

Table 48. Median past attainment calculation

Year	Attainment
2012	6.43%
2013	0.43%
2014	0.03%
2015	6.92%
2016	14.59%
Median of last five years	6.43%

Averaging the step-1 ratio of 0.1751 with the median past attainment of 0.0643 yields an adjusted ratio of 0.1197 or 11.97%.

Goal Attainment Projections (Race-Neutral and Race-Conscious)

The final goal established by PennDOT can be attained in two ways. First, it can be attained through race-conscious means such as contract goals. Second, the goal can be attained via race-neutral means as DBEs receive work, even though no special effort is made on the part of PennDOT or contractors to singularly engage DBEs (as noted in the Program Terms section of this document, race neutral means may be characterized by efforts designed to assist all small businesses as opposed to measures designed to benefit DBEs alone).

Table 49: Race-Neutral Attainment over Previous Five Years

Year	Race-Neutral Attainment
2012	0.00%
2013	0.00%
2014	0.00%
2015	0.00%
2016	0.04%
Median of last five years	0.00%

Numbers in the above table are rounded for display purposes.

PennDOT looked to its past attainment figures to establish the amount of race neutral attainment. Median race-neutral attainment over the last five years has been 0.00%. As per the regulations, PennDOT determined that 0.00% of the FFY 2018-2020 goal should be achieved through race-neutral means leaving the race-conscious portion of the 2018-2020 DBE goal at 11.97%.