Introduction

The Arizona Department of Transportation (ADOT) hereby submits its three-year overall Disadvantaged Business Enterprise (DBE) goal for federal fiscal years (FFYs) 2018 through 2020 to the Federal Highway Administration (FHWA) pursuant to 49 CFR Part 26, section 26.45.

Based on the results of a DBE Availability Study conducted in 2017 by Keen Independent Research (also provided to FHWA), ADOT has proposed a 9.55% DBE goal for FFYs 2018 through 2020 FHWA-funded contracts; 4.55% of which is projected to be accomplished through race- and gender-conscious means (DBE contract goals) and 5.00% which is expected to be accomplished through race-neutral means (ADOT outreach, training and program efforts).

Step 1. Determining a Base Figure – Pursuant to 49 CFR Section 26.45(c)

ADOT began the process of determining its overall DBE goal by establishing a base figure. Consistent with USDOT regulations and guidance, ADOT established the base figure from a DBE availability analysis conducted by Keen Independent Research (Keen Independent) as part of the 2017 Availability Study. Keen Independent also prepared the 2014 Availability Study and the 2015 Disparity Study for ADOT.

The availability analysis determined the percentage of ADOT FHWA-funded contracts from July 2014 through June 2016 that might go to current or potential DBEs (defined on page 3) if they had the same chance of winning that work as any other available firm, after accounting for the type, size and location of those prime contracts and subcontracts.

July 2014 through June 2016 represents the two most recent complete state fiscal years at the time of the 2017 Availability Study. There were 592 ADOT- and local agency-awarded contracts and 3,970 associated subcontracts that were FHWA-funded during this time period. Contract dollars totaled approximately $1,042,000,000. Keen Independent examined availability for each prime contract and subcontract, and then dollar-weighted those results to determine overall percentage of contract dollars that might be expected to go to DBEs during that time period.

Except for one large project, discussed separately below, the types, sizes and locations of FHWA-funded contracts and subcontracts from July 2014 through June 2016 were similar to the work anticipated for FHWA-funded contracts for FFY 2018 through FFY 2020. Therefore, an availability analysis for those two years of FHWA-funded contracts provides a reasonable projection of the percentage of FHWA-funded contract dollars that might go to available DBEs for FFY 2018 through FFY 2020.

---

1 Excluding the South Mountain Freeway project, which was examined separately as explained starting on page 8.
Keen Independent examined options for a database of available firms (DBEs and non-DBEs) to use when examining availability for individual July 2014 through June 2016 prime contracts and subcontracts.

- Based on analysis of FHWA-funded contracts for July 2014 through June 2016, Keen Independent determined that Arizona should be selected as the relevant geographic market area for the availability study.

  At least 88% of ADOT and local agency FHWA-funded contract dollars from July 2014 through June 2016 went to firms with locations in Arizona. (If more information were examined about local addresses for firms, this percentage might be higher.)

  Therefore, the availability analysis examined firms with locations in Arizona. (The geographic market area for the availability analysis is identical to the 2014 and 2015 studies.)

- Keen Independent also examined the types of work involved in FHWA-funded contracts from July 2014 through July 2016. There were 37 types of work that accounted for 97% of FHWA-funded contract dollars. The availability analysis focuses on firms performing these 37 types of work, the same as included in the 2015 Disparity Study.

In the 2014 Availability Study and the 2015 Disparity Study, Keen Independent conducted a comprehensive survey of firms that performed one or more of those 37 types of work that had Arizona locations. Because the availability survey was conducted fairly recently, the relevant geographic market area is the same and types of work involved are the same, it is appropriate to use the 2015 Disparity Study availability database when conducting the 2017 Availability Study.

Keen Independent updated the information about current DBE certification in the 2015 availability database. DBE status of firms in the database that became DBE-certified since 2015 was updated, as was the status of firms that grew too large to be certified or were de-certified.

**Head Count Availability**

Availability is expressed as the percentage of the associated contracting dollars that one might expect DBEs to receive based on various factors including the type of work involved, the location of the work and the size of the contract or subcontract. In the base figure analysis, firms considered as DBEs were those businesses that were DBE-certified or appeared that they could be DBE-certified based on revenue criteria described in federal regulations including 49 CFR Section 26.65.

Figure 1 presents the number of businesses included in the availability database for each racial, ethnic and gender group. The Disparity Study identified 1,429 businesses reporting that they were available for specific types, sizes and locations of ADOT and local agency transportation-related prime contracts and subcontracts. Of those businesses 500 (about 35%) were minority- or women-owned firms (MBE/WBEs).
Keen Independent included potential DBEs in the availability calculations for FHWA-funded contracts as well as current DBEs. All minority- and women-owned firms that were not DBE-certified were counted as potential DBEs except for the following three groups:

- Firms that in recent years graduated from the DBE Program or had applied for DBE certification in Arizona and had been denied (based on information supplied by ADOT);
- Businesses in the availability interviews reported having average annual revenue over three years that exceeded the revenue limits for DBE certification for their subindustry; and
- MBE/WBEs that upon telephone and email follow-up by ADOT in 2015 indicated that they would not qualify for DBE certification or were not interested in certification.

The balance of the availability discussion includes both current and potential DBEs in the results for DBE availability.

### Dollar-Weighted Availability

The “head count” data were further analyzed to produce “dollar-weighted” availability estimates, which represent the percentage of ADOT transportation contracting dollars that DBEs might be expected to receive based on their availability for specific types, sizes and locations of ADOT FHWA-funded prime contracts and subcontracts. This approach to calculating availability was a bottom-up, contract-by-contract process of “matching” available firms to specific prime contracts and subcontracts based on the types, sizes and locations of work they do. In other words, Keen Independent performed an availability analysis for each of the 4,562 FHWA-funded prime contracts and subcontracts during the study period, and then summarized results.
This approach to availability is much more precise than a simple “head count” of businesses because it considers the following factors:

1. **Type of Work.** USDOT suggests calculating availability based on businesses’ abilities to perform specific types of work and gives the following example in Part II F of “Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program”:

   For instance, if 90% of your contract dollars will be spent on heavy construction and 10% on trucking, you should weight your calculation of the relative availability of firms by the same percentages.²

The type of work was taken into account by examining 37 different sub-industries related to transportation construction and engineering as part of estimating availability for ADOT and local agency work.³

2. **Qualifications and Interest in Transportation-Related Prime Contract and Subcontract Work.** Information was collected on whether businesses are qualified and interested in working as prime contractors, subcontractors, or both on ADOT and local agency transportation work, in addition to the consideration of several other factors related to prime contracts and subcontracts (e.g., contract types, sizes and locations):

   - Only businesses that reported being qualified for and interested in working as prime contractors were counted as available for prime contracts.
   - Only businesses that reported being qualified for and interested in working as subcontractors were counted as available for subcontracts.
   - Businesses that reported being qualified for and interested in working as both prime contractors and subcontractors were counted as available for both prime contracts and subcontracts.

3. **Size of Prime Contracts and Subcontracts.** Also considered was the size, in terms of dollar value, of the prime contracts and subcontracts that a business bid on or received in the seven years prior to the survey (i.e., “bid capacity”) when determining whether to count that business as available for a specific prime contract or subcontract.

   This approach is consistent with many recent court decisions that have found relative capacity measures to be important to measuring availability (e.g., *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al.*; ⁴ *Western States Paving Company v. Washington State DOT*; ⁵ *Rodhe Development Corp. v. U.S. Department of Defense*; ⁶ and *Engineering Contractors Association of S. Fla. Inc. vs. Metro Dade County*⁷).

---

³ The sub-industries considered included: general road construction and widening; asphalt paving; pavement surface treatment; design engineering; bridge work; guardrail, signs or fencing; trucking and hauling; steel work; structural concrete work; concrete flatwork; temporary traffic control; electrical work including lighting and signals; landscaping and related work; excavation, grading and drainage; Portland cement concrete paving; drilling and foundations; soils and materials testing; concrete cutting; surveying and mapping; underground utilities; striping or pavement marking; milling; transportation planning; environmental consulting; construction management; erosion control; painting for road or bridge projects; wrecking and demolition; concrete pumping; asphalt, concrete or other paving materials; petroleum; and fence, guardrail materials.
4. **Geographic Location of the Work.** This was determined by using the location where work was performed for ADOT and local agency contracts (Northern, Central or Southern Arizona). Only firms reporting that they were able to work in a region were counted as available for contracts in that region.

5. **Dollar-Weighted Results.** Relative availability was determined on a contract-by-contract basis and then dollar-weighted to determine overall DBE availability for FHWA-funded contracts. For each prime contract and subcontract, Keen Independent calculated (a) the number of DBEs available for that type, size and location of work, (b) the total number of firms available for that work, and (c) the percentage DBE availability for that prime contract or subcontract, calculated by dividing (a) by (b). The factor used to dollar-weight the availability results for each of the 4,562 prime contracts and subcontracts was calculated by dividing the dollars for that prime contract/subcontract by $1,042,000,000 (the total FHWA-funded contract dollars examined). Small prime contracts or subcontracts received small weights and the largest contracts received the highest weights. For example, availability results for a $10 million prime contract would receive a weight of 1% ($10,000,000 ÷ $1,042,000,000 = 1.0%). Thus, the results of relatively large contract elements contributed more to overall availability estimates than those of relatively small contract elements. Once weighted, the DBE availability percentage results for each prime contract and subcontract were added to develop the overall availability figure. This approach is consistent with USDOT’s “Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program,” which suggests a dollar-weighted approach to calculating availability.

Figure 2 below provides an example of the contract-by-contract dollar-weighted availability calculation that was conducted on each prime and subcontract during the study period.

**Figure 2. Example of an Availability Calculation**

One of the subcontracts examined was for electrical work ($39,400) on a 2015 FHWA-funded contract for ADOT in Southern Arizona. To determine the number of DBEs and other firms available for that subcontract, Keen Independent identified businesses in the availability database that:

- Were in business in 2015;
- Indicated that they performed electrical work on transportation-related projects;
- Reported working or bidding on subcontracts in Arizona;
- Reported bidding on work of similar or greater size;
- Reported ability to perform work in Southern Arizona; and
- Reported qualifications and interest in working as a subcontractor on ADOT transportation projects.

There were 160 businesses in the availability database that met those criteria. Of those businesses, 21 were current or potential DBEs. Therefore, DBE availability for the subcontract was 13% (i.e., 21/160 = 13%).

The weight applied to this contract was $39,400 ÷ $1,042,000,000 = 0.0038%. (Weights are applied by multiplying the availability result for a prime contract or subcontract by the weight, and then adding results for all prime contracts and subcontracts.)

Source: Keen Independent Availability Analysis from 2017 Availability Study
Additional Explanation of Process to Calculate Dollar-Weighted Availability

In addition to the explanation of the availability process in the 2017 Availability Study (see Chapter 3 and Appendix C), below is a more detailed description of the dollar-weighting process used by Keen Independent to determine overall availability of DBEs for ADOT contracts.

Steps to Dollar-Weighting and Combining Availability Results for Individual Prime Contracts and Subcontracts. Figure 3 on the following page shows availability calculations and dollar-weighting for four examples of prime contracts and subcontracts and then the totals when all 4,562 FHWA-funded prime contracts and subcontracts are considered.

Availability for an Individual Prime Contract or Subcontract – Columns A-J. Most of Figure 3 shows how availability for an individual prime contract or subcontract is calculated:

- Columns A through G present basic information about the prime contract or subcontract.
- Based on these characteristics, Keen Independent identified the firms in the availability database that met the criteria to be available for that prime contract or subcontract (see Chapter 3 of the 2017 Availability Study). Column I presents the total number of firms available for the contract or subcontract, and Column H shows the number of those firms that were current or potential DBEs.
- Percentage availability for that contract is shown in Column J (Column H divided by Column I). For example, in the first record there were nine firms that met the availability criteria in the database and none were DBEs (it was a large road construction prime contract). This means that DBE availability was 0% for that contract. For Record 2, relative DBE availability was 12 DBEs divided by 64 total firms available for a value of 18.8% (12 ÷ 64 = 18.8%).
- Figure 3 provides examples of individual contracts and subcontracts in Record 1 through Record 4. Individual results for Records 5 through 4,562 are not shown, but Keen Independent provides a summary line for those other prime contracts and subcontracts. Dollar values for the records not shown sum to $1,006,298,791.

Chapter 3 in the 2017 Availability Study provides much more information about this process.

Dollar-Weighting – Columns K-L. The final two columns in Figure 3 (K and L) show the dollar-weighting process. Column K in Figure 3 provides the weight applied to the availability results for the individual contract.

- The weight for each prime contract or subcontract is calculated by dividing its value (Column G) by the total dollars for all of the contracts (the sum of Column G, or about $1 billion for these FHWA-funded contracts).
- For example, the dollar weight for the $35 million prime contract in Record 1 is close to 3% because it represents about 3% of the total dollars of FHWA-funded contracts in the study ($35 million divided by $1.0 billion is about 3%). The actual weight is 3.38822%, as shown in Column K.
- As another example (Record 2), the dollar weight for a $12,584 subcontract in Northern Arizona is 0.0121% ($12,584 divided by $1,041,976,561). In other words, the value of this contract is about one-hundredth of 1% of the total contract dollars.
Figure 3. Additional Explanation of Process to Calculate Dollar-Weighted Availability in 2017 ADOT Availability Study

<table>
<thead>
<tr>
<th>A</th>
<th>B Prime/Subcontract</th>
<th>C Type of work</th>
<th>D ADOT/LPA</th>
<th>E Region</th>
<th>F Year</th>
<th>G Value</th>
<th>H Available DBEs and potential DBEs</th>
<th>I Total firms available</th>
<th>J % DBE availability</th>
<th>K Amount as % of total dollars</th>
<th>L Dollar-weighted DBE availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prime</td>
<td>General road construction and widening</td>
<td>ADOT</td>
<td>Central</td>
<td>2015</td>
<td>$35,304,617</td>
<td>0</td>
<td>9</td>
<td>0.0%</td>
<td>3.38822%</td>
<td>0.00000%</td>
</tr>
<tr>
<td>2</td>
<td>Sub</td>
<td>Concrete pumping</td>
<td>ADOT</td>
<td>Northern</td>
<td>2015</td>
<td>$12,584</td>
<td>12</td>
<td>64</td>
<td>18.8%</td>
<td>0.00121%</td>
<td>0.00023%</td>
</tr>
<tr>
<td>3</td>
<td>Sub</td>
<td>Electrical work</td>
<td>ADOT</td>
<td>Southern</td>
<td>2016</td>
<td>$18,337</td>
<td>21</td>
<td>160</td>
<td>13.1%</td>
<td>0.00176%</td>
<td>0.00023%</td>
</tr>
<tr>
<td>4</td>
<td>Prime</td>
<td>Design engineering</td>
<td>LPA</td>
<td>Central</td>
<td>2014</td>
<td>$342,232</td>
<td>14</td>
<td>115</td>
<td>12.2%</td>
<td>0.03284%</td>
<td>0.00400%</td>
</tr>
<tr>
<td>S to 4,562</td>
<td>All other prime and subcontracts</td>
<td>Sums to $1,006,298,791</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sums to 96.57596%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$1,041,976,561</td>
<td></td>
<td></td>
<td></td>
<td>100.00000%</td>
<td>9.25432%</td>
</tr>
</tbody>
</table>

Source: Keen Independent Research 2017 ADOT Availability Study
Once the dollar weight is calculated, Keen Independent multiplied the availability results for each prime contract or subcontract (Column J) by the weight (Column K). Column L shows the resulting value.

- For example, the dollar-weighted availability for the $35 million prime contract in Record 1 is 0% (Column L) because DBE availability for this contract was 0% (Column J).
- For the $12,584 subcontract in Northern Arizona shown in Record 2, dollar-weighted availability is 0.00023%. It is calculated by multiplying the 18.8% DBE availability for this contract by 0.00121%.
- Even though small subcontracts individually do not receive much weight in the overall availability calculations, there were many of them, which made them collectively important to the overall availability calculation.

**Summing the Dollar-weighted Availability.** Keen Independent performed these calculations for 4,562 FHWA-funded prime contracts and subcontracts for the study period. (Imagine 4,558 more rows to the table in addition to the four contract examples shown.) Column G summed to the total FHWA-funded contract dollars (about $1,042,000,000) and Column K summed to 100%. When Keen Independent summed the results for Column L, overall dollar-weighted DBE availability for FHWA-funded contracts was 9.25%.

Keen Independent used the approach described above to estimate the availability of current and potential DBEs for FHWA-funded prime contracts and subcontracts that ADOT and local agencies awarded during the study period. Figure 4 below compares overall dollar-weighted availability estimates for those contracts (right-hand column) with the same analysis for FHWA-funded contracts in the 2015 Disparity Study. DBE availability for FHWA-funded contracts was 9.25% in the 2017 Availability Study, which is slightly higher than reported in the 2015 Disparity Study because of updated information on certification status of companies and a slightly different mix of contracts and subcontracts from July 2014 through June 2016.

![Figure 4. Comparison of Overall Dollar-weighted Availability Estimates for DBEs for ADOT FHWA-funded Contracts, July 2014–June 2016](image)

<table>
<thead>
<tr>
<th></th>
<th>2015 Disparity Study</th>
<th>2017 Availability Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>FHWA</td>
<td>8.90 %</td>
<td>9.25 %</td>
</tr>
</tbody>
</table>

Note: Results for FHWA-funded contracts include potential DBEs
Source: Keen Independent 2017 ADOT Availability Study

**Calculation of Final Base Figure for ADOT’s Overall DBE Goal**

**Consideration of South Mountain Freeway in the Base Figure for FHWA-funded Contracts.** The South Mountain Freeway is a unique project unlike other contracts examined in the July 2014 through June 2016 time frame. As discussed in Chapter 2 of the 2017 Availability Study, one-quarter of total ADOT FHWA-funded contract dollars expended in state fiscal years 2018, 2019 and 2020 will be associated with this project. Combining the goals for the design and construction portions of the project, there is an 11.85% DBE contract goal for the South Mountain Freeway. ADOT’s DBE goal for this contract is the best estimate of future DBE participation on the contract.

For these reasons, Keen Independent separately examined DBE availability for this project based on the combined design and construction DBE contract goal established for this contract.
Analysis of the base figure for FHWA-funded contracts weights the results of the availability analysis for FHWA-funded contracts (9.25%) and the DBE contract goal for the project 11.85%). The calculation is as follows:

- Three quarters of the base figure for FHWA-funded contracts is based on the 9.25% DBE availability result from the analyses of July 2014 through June 2016 FHWA-funded contracts not including South Mountain Freeway.
- One quarter of the base figure for FHWA-funded contracts is based on the 11.85% DBE contract goal for the South Mountain Freeway project.
- The combined base figure for FHWA-funded contracts is \((0.75 \times 9.25\%) + (0.25 \times 11.85\%) = 9.90\%\).

**Final Step 1. Determination Based on Required Factors**

In summary, after considering the impact of the South Mountain Freeway project on the mix of FHWA-funded contracts for FFY 2018 through FFY 2020, ADOT chose to consider 9.90% as its base figure.

**Step 2. Determining if an Adjustment is Needed – 49 CFR Section 26.45(d)**

After establishing the base figure, ADOT considered information from the 2017 Availability Study and the 2015 Disparity Study to determine whether any step 2 adjustment was needed to the base figure to determine the overall DBE goal. In considering an adjustment to the base figure, ADOT evaluated factors that the Federal DBE Program indicates that an agency must consider when assessing whether to make any Step 2 adjustment to the base figure. These factors include:

- Current capacity of DBEs to perform work, as measured by the volume of work DBEs have performed in recent years;
- 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 factors.\(^a\)

Keen Independent completed an analysis of each of the above step 2 factors in the 2017 Availability Study and the 2015 Disparity Study, and was able to quantify the effect of certain factors on the base figure. Other information examined was not as easily quantifiable but was still relevant in ADOT’s determination of whether to make any step 2 adjustments.

1. **Current Capacity of DBEs to Perform Work, as Measured by the Volume of Work DBEs have Performed in Recent Years**

USDOT’s “Tips for Goal-Setting” suggests that agencies should examine data on past DBE participation on their USDOT-funded contracts in recent years (i.e., the percentage of contract dollars going to DBEs). At the time of the 2017 Availability Study, the most recent full federal fiscal year for which ADOT had reported data was FFY 2016 (ending September 2016).

---

\(^a\) 49 CFR Section 26.45.
DBE Participation Based on ADOT Uniform Reports to FHWA. Figure 5 presents information about past DBE participation based on payments from ADOT Uniform Reports of DBE Awards or Commitments and Payments reported to the FHWA. Participation is shown for FFYs 2014, 2015 and 2016, the three most recent complete federal fiscal years at the time of the Availability Study. Median-year DBE participation was 9.20%.

**Figure 5. Past DBE Participation on FHWA-funded Contracts based on Payments, FFYs 2014, 2015 and 2016**

Based on the payments data in Figure 5, ADOT could make a downward step 2 adjustment based on this factor, as explained later in this document. (For purposes of examining current capacity of DBEs, results based on payments for this three-year period may be more informative than commitments and awards, which showed somewhat lower DBE participation.)

2. Information Related to Employment, Self-Employment, Education, Training and Unions

The 2015 Disparity Study report summarizes information about conditions in the Arizona transportation contracting industry for minorities, women and minority and women-owned firms. Detailed quantitative analyses of marketplace conditions in Arizona are presented in Appendices E through H of that report. Keen Independent’s analyses in the 2015 Disparity Study indicated that there are barriers that certain minority groups and women face related to entry and advancement and business ownership in the Arizona construction and engineering industries. Such barriers may affect the availability of MBE/WBEs to obtain and perform ADOT and local agency transportation contracts.

It may not be possible to quantify the cumulative effect that barriers in employment, education and training may have had in depressing the availability of minority- and women-owned firms in the Arizona transportation contracting industry. However, the effects of barriers in business ownership can be quantified, as explained below.

In the 2015 Disparity Study, the study team used regression analyses to investigate whether race, ethnicity and gender affected rates of business ownership among workers in the Arizona construction and engineering industries. The regression analyses allowed the study team to examine those effects while statistically...
controlling for various personal characteristics including education and age (Appendix F of the 2015 Disparity Study provides detailed results of the business ownership regression analyses). Those analyses revealed that African Americans, Native Americans and white women working in construction were less likely than non-minorities and white men to own construction businesses, even after accounting for various gender-neutral personal characteristics. Each of these disparities was statistically significant.

Keen Independent analyzed the impact that barriers in business ownership would have on the base figure if African Americans, Native Americans and white women owned businesses at the same rate as similarly-situated non-minorities and white men. This type of inquiry is sometimes referred to as a “but for” analysis because it estimates the availability of MBE/WBEs but for the effects of race- and gender-based discrimination.

Figure 6 calculates the impact on overall MBE/WBE availability in the 2017 Availability Study if the groups showing disparities in business ownership rates owned companies at the same rate as similarly situated non-minorities and men. The availability of MBE/WBEs would be 3.51 percentage points higher (shown in the bottom right-hand corner of the figure). The analysis included the same contracts that the study team analyzed to determine the base figure (i.e., FHWA-funded construction and engineering prime contracts and subcontracts that ADOT and local agencies awarded from July 2014 through June 2016). Calculations are explained below.

Figure 6. Potential Step 2 Adjustment Considering Disparities in the Rates of Business Ownership

<table>
<thead>
<tr>
<th>Subindustry and group</th>
<th>a. Current availability</th>
<th>b. Disparity index for business ownership</th>
<th>c. Availability after initial adjustment*</th>
<th>d. Availability after scaling to 100%</th>
<th>e. Components of overall MBE/WBE availability**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>1.21 %</td>
<td>77</td>
<td>1.57 %</td>
<td>1.49 %</td>
<td></td>
</tr>
<tr>
<td>Native American</td>
<td>1.95 %</td>
<td>33</td>
<td>5.91 %</td>
<td>5.61 %</td>
<td></td>
</tr>
<tr>
<td>Other minorities</td>
<td>8.21 %</td>
<td>n/a</td>
<td>8.21 %</td>
<td>7.79 %</td>
<td></td>
</tr>
<tr>
<td>White women</td>
<td>5.34 %</td>
<td>84</td>
<td>6.36 %</td>
<td>6.04 %</td>
<td></td>
</tr>
<tr>
<td>MBE/WBEs</td>
<td>16.71 %</td>
<td>n/a</td>
<td>22.05 %</td>
<td>20.93 %</td>
<td>18.21 %</td>
</tr>
<tr>
<td>Majority-owned businesses</td>
<td>83.29 %</td>
<td>n/a</td>
<td>83.29 %</td>
<td>79.07 %</td>
<td></td>
</tr>
<tr>
<td><strong>Total firms</strong></td>
<td>100.00 %</td>
<td>n/a</td>
<td>105.34 %</td>
<td>100.00 %</td>
<td></td>
</tr>
<tr>
<td><strong>Engineering and other subindustries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MBE/WBEs</td>
<td>22.03 %</td>
<td>n/a</td>
<td>22.03 %</td>
<td>22.03 %</td>
<td>2.86 %</td>
</tr>
<tr>
<td>Majority-owned businesses</td>
<td>77.97 %</td>
<td>n/a</td>
<td>77.97 %</td>
<td>77.97 %</td>
<td></td>
</tr>
<tr>
<td><strong>Total firms</strong></td>
<td>100.00 %</td>
<td>n/a</td>
<td>100.00 %</td>
<td>100.00 %</td>
<td></td>
</tr>
<tr>
<td><strong>Total for MBE/WBEs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21.07 %</td>
</tr>
<tr>
<td>Difference from current availability</td>
<td>17.56 %</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>3.51 %</td>
</tr>
</tbody>
</table>

Note: Numbers may not add to 100.00% due to rounding.
* Initial adjustment is calculated as current availability divided by the disparity index for business ownership.
** Components of the base figure were calculated as the value after adjustment and scaling to 100%, multiplied by the percentage of total FHWA-funded contract dollars in each industry (construction = 87%, engineering = 13%).

Source: Keen Independent based on FHWA-funded contracts for July 2014 through June 2016, 2017 availability analysis, and statistical analysis of U.S. Census Bureau American Community Survey data for Arizona for 2008-2012 as reported in the 2015 Disparity Study.

The study team examined U.S. Census data on business ownership rates using methods similar to analyses examined in court cases involving state departments of transportation in California, Illinois, and Minnesota.
The study team completed these “but for” analyses separately for construction and engineering contracts and then weighted the results based on the proportion of FHWA-funded contract dollars that ADOT awarded for construction and engineering for June 2014 through June 2016 (i.e., an 87% weight for construction and 13% weight for engineering). The rows and columns of Figure 6 present the following information from Keen Independent’s “but for” analyses (see 2017 Availability Study).

1. **Current Availability.** Column (a) presents the current availability of MBE/WBEs by group for construction and for engineering and other sub-industries. Each row presents the percentage availability for MBEs and WBEs. The current combined availability of MBE/WBEs for ADOT FHWA-funded transportation contracts for July 2014 through June 2016 is 17.56%, as shown in the bottom row of column (a). This includes DBEs, potential DBEs and minority- and women-owned firms not counted as current or potential DBEs.

2. **Disparity Indices for Business Ownership.** As presented in Appendix F of the 2015 Disparity Study, African Americans, Native Americans and white women were significantly less likely to own construction firms than similarly-situated non-minorities and white men.

   Keen Independent calculated simulated business ownership rates if those groups owned businesses at the same rate as non-minorities and white males who share similar personal characteristics. The study team then calculated a business ownership disparity index for each group by dividing the observed business ownership rate by the benchmark business ownership rate and then multiplying the result by 100.

   Column (b) of Figure 6 presents disparity indices related to business ownership for the different racial/ethnic and gender groups. For example, as shown in column (b), white women own construction businesses at 84% of the rate that would be expected based on the simulated business ownership rates of white males who share similar personal characteristics. Appendix F explains how the study team calculated the disparity indices.

3. **Availability after Initial Adjustment.** Column (c) presents availability estimates for MBEs and WBEs by industry after initially adjusting for statistically significant disparities in business ownership rates. The study team calculated those estimates by dividing the current availability in column (a) by the disparity index for business ownership in column (b) and then multiplying by 100.

4. **Availability after Scaling to 100%.** Column (d) shows adjusted availability estimates that were re-scaled so that the sum of the availability estimates equals 100% for each industry. The study team re-scaled the adjusted availability estimates by taking each group’s adjusted availability estimate in column (c) and dividing it by the sum of availability estimates shown under “Total firms” in column (c) - and multiplying by 100. For example, the re-scaled availability estimate for white women shown for construction was calculated in the following way: 
   \[
   \left(\frac{6.36\%}{105.34\%}\right) \times 100 = 6.04\%
   \]

5. **Components of Overall DBE Goal with Upward Adjustment.** Column (e) of Figure 6 shows the component of the total base figure attributed to the adjusted MBE and WBE availability for construction versus engineering and other sub-industries. The study team calculated each component by taking the total availability estimate shown in column (d) for construction and for engineering/other — and multiplying it by the proportion of total FHWA-funded contract dollars in each industry (i.e., 87% for construction and 13% for engineering). For example, the study team used the 20.93% shown for MBE/WBE availability for construction firms in column (d) and multiplied it by 87% for a result of 18.21%. A similar weighting of MBE/WBE availability for engineering/other produced a value of 2.86%.

   The values in column (e) were then summed to equal the overall base figure adjusted for barriers in business ownership, which is 21.07% as shown in the bottom of column (e).
Finally, Keen Independent calculated the difference between the “but for” MBE/WBE availability (21.07%) and the current availability (17.56%) to calculate the potential upward adjustment. This difference, and potential upward adjustment, is 3.51 percentage points (21.07% - 17.56% = 3.51%). Therefore, based on information related to business ownership, ADOT could consider an upward adjustment to its overall DBE goal of up to 3.51 percentage points. The overall DBE goal would be 13.41% as the 3.51 percentage point adjustment would be from a base figure of 9.90% calculated after subtracting availability for MBE/WBEs that are not potential DBEs and adding white male-owned DBEs (9.90% + 3.51% = 13.41%).

3. Any Disparities in the Ability of DBEs to Secure Financing, Bonding and Insurance

Analysis of access to financing and bonding in the 2015 Disparity Study revealed quantitative and qualitative evidence of disadvantages for minorities, women and MBE/WBEs.

- Any barriers to obtaining financing and bonding might affect opportunities for minorities and women to successfully form and operate construction and engineering businesses in the Arizona marketplace.
- Any barriers that MBE/WBEs face in obtaining financing and bonding would also place those businesses at a disadvantage in obtaining ADOT and local agency construction and engineering prime contracts and subcontracts.

Note that financing and bonding are closely linked, as discussed in Chapter 4 and Appendix J of the 2015 Disparity Study.

There was also evidence in the 2015 Disparity Study that some firms cannot bid on certain public sector projects because they cannot afford the levels of insurance required by the agency. This barrier appeared to affect small businesses, which might disproportionately impact minority- and women-owned firms.

The information about financing, bonding and insurance in the 2015 Disparity Study supports an upward step 2 adjustment in ADOT’s overall annual goal for DBE participation in FHWA-funded contracts.

4. Other Factors

The Federal DBE Program suggests that federal aid recipients also examine “other factors” when determining whether to make any step 2 adjustments to their base figure.10

Success in the Arizona marketplace. Among the “other factors” examined in this study was the information in the 2015 Disparity Study about the comparative success of MBE/WBEs and majority-owned businesses in the Arizona marketplace. There was quantitative evidence that certain groups of MBE/WBEs were less successful than majority-owned firms, and faced greater barriers in the marketplace, even after considering neutral factors. There was also qualitative evidence of barriers to the success of minority- and women-owned businesses. Some of this qualitative information suggested that discrimination on the basis of race, ethnicity and gender affected minority- and women-owned firms in the Arizona transportation contracting industry.

10 49 CFR Section 26.45.
Approaches for Making Step 2 Adjustments.

Quantification is discussed below.

1. Current Capacity of DBEs to Perform Work, as Measured by the Volume of Work DBEs have Performed in Recent Years. Analysis of this factor might indicate a downward step 2 adjustment based on past DBE participation. The median DBE participation for FHWA-funded contracts for FFY 2014, FFY 2015 and FFY 2016 (based on payments) was 9.20%.

USDOT “Tips for Goal-Setting” suggests taking one-half of the difference between the base figure and evidence of current capacity as one approach to calculate the step 2 adjustment for that factor. The difference between the 9.90% base figure and the 9.20% median past participation is 0.70 percentage points, so one-half of that difference is 0.35 percentage points. Subtracting 0.35 from 9.90% produces an overall DBE goal of 9.55%.

2. Information Related to Employment, Self-Employment, Education, Training and Unions. The 2015 Disparity Study was not able to quantify all of the information regarding barriers to entry for MBE/WBEs. The one factor for which the impact could be quantified was business ownership rates. Disparities in business ownership rates indicate an upward step 2 adjustment of up to 3.51 percentage points to reflect the “but-for” analyses of business ownership rates presented in Figure 6. If ADOT made this adjustment, the overall DBE goal for FHWA-funded contracts would be 13.41% (9.90% + 3.51% = 13.41%).

3. Any Disparities in the Ability of DBEs to Secure Financing, Bonding and Insurance. Analysis of financing, bonding and insurance indicates that an upward adjustment is appropriate. However, impact of these factors on availability could not be quantified in the 2015 Disparity Study.

4. Other Factors. Impact of the barriers to success of MBE/WBEs in Arizona could not be quantified in the 2015 Disparity Study. However, evidence supports an upward adjustment.

Figure 7 illustrates the potential downward and upward step 2 adjustments based on the above information.

Figure 7. Potential Step 2 Adjustments to Overall DBE Goal for FHWA-Funded Contracts

![Figure 7: Potential Step 2 Adjustments to Overall DBE Goal for FHWA-Funded Contracts](image-url)
Step 2. Adjustment Resulting in Proposed DBE Goal

ADOT considered the available information and has decided to make a downward adjustment of 0.35% to its base-figure (9.90%) to select 9.55% as its final overall DBE goal for FFY 2018–FFY 2020 for FHWA-funded contracts (9.90% - 0.35% = 9.55%).

ADOT chose to make a downward adjustment for a number of reasons including:

- The 9.55% goal best reflects the current capacity of certified DBEs to perform work.
- The 9.55% goal represents an achievable increase over ADOT’s current 8.90% DBE goal.
- The total volume of work for DBEs will be substantial for FFY 2018 through FFY 2020 considering the South Mountain Freeway project.
- Only in recent years has ADOT been able to meet the overall DBE goal, even when the goal was considerably lower.
- Achievement of this 9.55% goal is contingent upon potential DBEs obtaining certification, which could take several years to achieve assuming that these firms are willing to become certified and can meet the “DBE Certification” requirements.
- ADOT did not choose to make an upward adjustment of 13.41% as it is considerably higher than the current capacity of existing and potential newly-certified DBEs to perform work on ADOT FHWA-funded contracts and would be difficult to achieve based on the reasons stated above.

Race-/Gender-Neutral and Race/Gender-Conscious Split – 49 CFR Section 26.51 (c)

In accordance with federal regulations and USDOT guidance, ADOT proposes to meet the maximum feasible portion of its proposed 9.55% overall DBE goal by using race- and gender-neutral measures. As part of the current 2017 Availability Study, Keen Independent analyzed a number of factors related to ADOT’s race- and gender-neutral DBE program component based on 49 CFR Part 26, including:

- Is there evidence of discrimination within the local transportation contracting marketplace for any racial, ethnic or gender groups?
- What has been the agency’s past experience in meeting its overall DBE goal?
- What has DBE participation been when the agency did not use race- or gender-conscious measures?¹¹
- What is the extent and effectiveness of race- and gender-neutral measures that the agency could have in place for the next fiscal year?

¹¹ USDOT guidance suggests evaluating (a) certain DBE participation as prime contractors if the DBE contract goals did not affect utilization, (b) DBE participation as prime contractors and subcontractors for agency contracts without DBE goals, and (c) overall utilization for other state, local or private contracting where contract goals are not used.
1. Is There Evidence of Discrimination within the Local Transportation Contracting Marketplace for any Racial, Ethnic or Gender Groups?

The 2015 Availability Study considered conditions in the local marketplace to address this question. Quantitative and qualitative information is summarized below.

**Marketplace Conditions.** The 2015 Disparity Study examined conditions in the Arizona marketplace, including:

- Entry and advancement;
- Business ownership;
- Access to capital, bonding and insurance; and
- Success of businesses.

There was quantitative evidence of disparities in outcomes for minority- and women-owned firms in general and for certain MBE/WBE groups concerning the above issues. Disparities for women and women-owned firms include:

- Low entry into construction and engineering jobs;
- Lower construction business formation rates (regression analysis controlling for neutral factors);
- Lower business loan approval rates;
- Higher rate of not applying for business loans due to fear of loan denial (regression analysis controlling for neutral factors);
- Lower mean loan values;
- Higher interest rates;
- More likely to report difficulty in obtaining lines of credit or loans;
- More likely to report difficulty obtaining bonding;
- More likely to report insurance requirements as a barrier;
- Relatively few firms awarded contracts or subcontracts of $1 million or more (after controlling for subindustry); and
- Lower business earnings (regression analysis after controlling for neutral factors).

Qualitative information indicated some evidence that discrimination may have been a factor in these outcomes. (It is important to note that some minority and female business owners interviewed did not think they had been affected by race or gender discrimination.)

ADOT reviewed the information about marketplace conditions presented in the 2015 Disparity Study when considering the extent to which it can meet the overall DBE goal through neutral measures.

**Disparity Analysis.** The 2015 Disparity Study found that utilization of each racial/ethnic group of minority-owned businesses on ADOT FHWA- and state-funded contracts was substantially below what might be
expected from the availability analysis. Based on further statistical analysis, Keen Independent could reject chance in the contracting process as an explanation for the disparities for MBEs.

For white women-owned firms, some of the analyses indicated disparities and some did not. The 2015 Disparity Study explores all of these results.

**Summary.** The combined information from the marketplace and the disparity analyses in the 2015 Disparity Study indicated evidence of discrimination against minorities and women, and minority- and women-owned firms, relevant to the Arizona transportation contracting industry.

2. What has been the Agency’s Past Experience in Meeting its Overall DBE Goal?

ADOT’s reported certified DBE participation for FFY 2014 through FFY 2016 is summarized in Figure 8. As shown, reported DBE participation based on DBE commitments/awards on FHWA-funded contracts has been below ADOT’s overall DBE goals for FFY 2014 through FFY 2016.

ADOT also reported participation based on payments to DBEs. These data show participation of slightly more than 4% in FFY 2014, about 9% in FFY 2015 and about 11% in FFY 2016.

Figure 8. ADOT Overall DBE Goal and Reported DBE Participation on FHWA-funded Contracts, FFY 2014 through FFY 2016

<table>
<thead>
<tr>
<th></th>
<th>DBE goal</th>
<th>DBE commitments/awards</th>
<th>DBE payments</th>
<th>Difference from DBE goal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Awards</td>
</tr>
<tr>
<td>Federal fiscal year</td>
<td></td>
<td></td>
<td></td>
<td>Payments</td>
</tr>
<tr>
<td>2014</td>
<td>7.76 %</td>
<td>5.46 %</td>
<td>4.25 %</td>
<td>-2.30 % -3.51 %</td>
</tr>
<tr>
<td>2015</td>
<td>9.38</td>
<td>5.69</td>
<td>9.20</td>
<td>-3.69 -0.18</td>
</tr>
<tr>
<td>2016</td>
<td>8.90</td>
<td>6.63</td>
<td>10.90</td>
<td>-2.27 2.00</td>
</tr>
</tbody>
</table>

Source: ADOT Uniform Reports of DBE Awards/Commitments and Payments. Payments for 2015-2016 are from ongoing projects; payments from 2014 are from completed projects as data were not available for ongoing projects.

3. What has DBE Participation been when ADOT has not Applied DBE Contract Goals (or other Race-conscious Remedies)?

Keen Independent examined multiple sources of information to assess race-neutral DBE participation:

- DBE participation on FHWA-funded contracts in the most recent three years in which ADOT did not apply DBE contract goals (FFY 2008 through FFY 2010);
- ADOT-reported race-neutral DBE participation on FHWA-funded contracts for the most recent years (FFY 2014 through FFY 2016);
- Keen Independent estimates of DBE participation on FHWA- and state-funded contracts for which no DBE contract goals applied (from the 2015 Disparity Study); and
- Information concerning DBE participation as prime contractors (for FFY 2014 through FFY 2016).

The discussion in the following two pages examines these four sets of participation figures.

**DBE Participation in Recent Years in which ADOT did not Apply DBE Contract Goals.** ADOT did not apply race- or gender-conscious program elements from the beginning of 2006 until well into FFY 2011. For FFYs 2008, 2009 and 2010, the last three full fiscal years for which DBE contract goals were not applied, reported DBE utilization
ranged from 1.21% to 2.08% based on DBE commitments/awards (median of 2.02%). ADOT reported DBE participation ranging from 0.87 to 4.30% for those fiscal years based on payments data (median of 4.19%), as reported in Figure 9.

**Figure 9. DBE Participation on FHWA-funded Contracts for most Recent Three Years when DBE Contract Goals did not Apply (FFY 2008–FFY 2010)**

<table>
<thead>
<tr>
<th>Federal fiscal year</th>
<th>Commitments/awards</th>
<th>Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>1.21 %</td>
<td>4.19 %</td>
</tr>
<tr>
<td>2009</td>
<td>2.02 %</td>
<td>4.30 %</td>
</tr>
<tr>
<td>2010</td>
<td>2.08 %</td>
<td>0.87 %</td>
</tr>
</tbody>
</table>

Source: ADOT Uniform Reports of DBE Awards/Commitments and Payments.

**Race-neutral DBE Participation in Recent ADOT Uniform Reports.** Per USDOT instructions, ADOT counts as “neutral” participation any prime contracts going to DBEs as well as subcontracts to DBEs beyond what was needed to meet DBE contract goals set for a project or that were otherwise awarded in a race-neutral manner.

ADOT’s Uniform Reports of DBE Awards/Commitments and Payments submitted to FHWA for the three most recent federal fiscal years indicate race-neutral participation of:

- 2.32% in FFY 2014;
- 1.97% in FFY 2015; and
- 1.30% in FFY 2016.

Figure 10 presents these results.

**Figure 10. Race-neutral and Race-conscious DBE Participation on FHWA-funded Contracts for FFY 2014, FFY 2015 and FFY 2016**

<table>
<thead>
<tr>
<th>Federal fiscal year</th>
<th>DBE commitments/awards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>2014</td>
<td>5.46 %</td>
</tr>
<tr>
<td>2015</td>
<td>5.69 %</td>
</tr>
<tr>
<td>2016</td>
<td>6.63 %</td>
</tr>
</tbody>
</table>

Source: ADOT Uniform Reports of DBE Awards/Commitments and Payments.

ADOT also prepared these analyses based on payments on completed projects (see Figure 11). ADOT reported race-neutral participation from a high of about 2% in FFY 2015 to a low of about 0.5% in FFY 2016.
Figure 11. Race-neutral and Race-conscious DBE Payments for Completed FHWA-funded Contracts for FFY 2014 through FFY 2016

<table>
<thead>
<tr>
<th>Federal fiscal year</th>
<th>DBE payments on completed projects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>2014</td>
<td>4.25 %</td>
</tr>
<tr>
<td>2015</td>
<td>7.98 %</td>
</tr>
<tr>
<td>2016</td>
<td>9.48 %</td>
</tr>
</tbody>
</table>

Source: ADOT Uniform Reports of DBE Awards/Commitments and Payments.

DBE Participation on Contracts without DBE Contract Goals for July 2007 through June 2013. In the 2015 Disparity Study, Keen Independent also analyzed DBE participation on ADOT’s FHWA- and state-funded contracts without DBE contract goals. ADOT achieved 5.0% DBE participation on these contracts from July 2007 through June 2013.

DBE Participation as Prime Contractors. Focusing just on participation as prime contractors for FFY 2014 through FFY 2016, DBEs obtained 1% of prime contract dollars on FHWA-funded contracts based on Uniform Reports.

4. What is the Extent and Effectiveness of Race- and Gender-Neutral Measures That ADOT Currently has in Place and Will Put in Place for the Next Fiscal Year?

When determining the extent to which it could meet its overall DBE goal through the use of neutral measures, ADOT reviewed the race- and gender-neutral measures that it and other organizations currently have in place, and those it has planned or could consider for future implementation.

ADOT Initiatives. Keen Independent’s analysis of neutral remedies in the 2015 Disparity Study indicated that ADOT had implemented an extensive set of neutral measures. Activities since then include the following:

- ADOT had conducted substantial outreach to encourage eligible firms to become DBE certified. This is one way to increase reported DBE participation through neutral means, as some of these companies may already be doing business with ADOT. Certification will allow this participation to count toward ADOT’s overall DBE goal.

- ADOT substantially expanded its online information available to small businesses, including DBEs, through a ADOT Business Coach on Demand website.

- ADOT has a “Just One More” campaign to encourage prime contracts to use one more DBE than needed to meet a DBE contract goal.

In the 2015 Disparity Study, Keen Independent also examined other potential neutral measures. Research into expanded SBC programs, such as SBC contract goals and an SBC set-aside program, indicate that ADOT might not have the authority under state law to implement such measures.

Proposed Projection of the Portion of the Overall DBE Goal to be Achieved through Neutral Means

ADOT considered whether it can achieve 100% of its overall DBE goal through neutral means or whether race-conscious programs are needed. ADOT considered the information in the 2017 Availability Study, the 2015 Disparity Study and other sources when reaching its decision on any use of race- and gender-conscious programs (such as DBE contract goals).
There is information in the 2015 Disparity Study indicating disparities in outcomes for minorities and women and some qualitative evidence of discrimination within the local transportation contracting marketplace, as summarized in Chapter 4 of that report.

Median annual DBE participation for the last three full federal fiscal years in which ADOT operated a 100% neutral program was 2.02% based on awards/commitments and 4.19% based on payments. This level of participation is considerably below an overall DBE goal of 9.55%.

The 2015 Disparity Study estimated 5.0% DBE utilization on FHWA- and state-funded contracts without DBE contract goals from July 2007 through June 2013. Therefore, the most recent data on participation without DBE contract goals suggests DBE participation well below a goal of 9.55%.

ADOT has extensive neutral measures in place and there are many small business assistance programs offered by other institutions throughout the state. It is unlikely that ADOT could increase its neutral participation of DBEs to reach an overall DBE goal in the range of 9.55% solely through additional neutral measures.

For the following reasons, ADOT chose a race-neutral projection of 5 percentage points for its overall DBE goal for FFY 2018 through FFY 2020.

Median DBE participation was 4.19% for the three most recent federal fiscal years in which ADOT operated a 100% neutral program.

The race-neutral portion of ADOT’s DBE participation was in the range of 0.5 to 3.1% based on ADOT’s reports for FFY 2014 through FFY 2016.

ADOT neutral initiatives are already considerable.

The 2015 Disparity Study’s analysis of DBE participation on ADOT FHWA- and state-funded contracts without DBE contract goals indicated 5.0% utilization of DBEs.

Although there are lower measures of neutral participation discussed above, the 5.0% DBE participation is the most accurate projection of DBE participation in FHWA-funded contracts if ADOT operated a solely neutral program. ADOT chooses 5.00% as its projection of neutral achievement for FFY 2018 through FFY 2020.

ADOT projects the remaining portion of the overall DBE goal, 4.55%, will be achieved through race-conscious means. ADOT will continue to employ DBE contract goals for certain FHWA-funded contracts (9.55% - 5.00% = 4.55%).
The second column of numbers in Figure 12 presents the race-neutral and race-conscious projections for FFY 2018 through FFY 2020. As shown, a 4.55 percentage point projection of DBE participation through race-conscious measures is similar to ADOT’s 3.90 percentage point race-conscious projection currently in place.

Figure 12. Current ADOT Overall DBE Goal and Race-Conscious and Neutral Projections for FHWA-funded Contracts for FFY 2018 through FFY 2020 and Proposed Revised Overall Goal and Projections

<table>
<thead>
<tr>
<th>Component of overall DBE goal for FHWA</th>
<th>FFY 2015-FFY 2017</th>
<th>FFY 2018-FFY 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall goal</td>
<td>8.90 %</td>
<td>9.55 %</td>
</tr>
<tr>
<td>Neutral projection</td>
<td>5.00 %</td>
<td>5.00 %</td>
</tr>
<tr>
<td>Race-conscious projection</td>
<td>3.90 %</td>
<td>4.55 %</td>
</tr>
</tbody>
</table>

Public Participation – 49 CFR Section 26.45(g)

As it did with the 2014 Availability Study and 2015 Disparity Study, ADOT published the overall DBE goal and the draft 2017 Availability Study report for public comment before submitting final versions of these documents to FHWA. The public comment period for the report and overall DBE goal was open from May 15, 2017 through June 22, 2017.

The public was encouraged to comment on the size of the proposed overall DBE goals, the methodology used to develop the goals, the results of the 2017 Availability Study, as well as suggestions on how to improve contracting opportunities for DBEs and other small businesses, including what ADOT and the industry could do to enhance support of the Federal DBE Program.

ADOT made wide-ranging efforts to publicize the goal draft report and opportunities for public input, including distribution of the information to more than 5,000 individuals and organizations throughout the state. ADOT presented results to the following stakeholder groups in May and June 2017:

- ADOT DBE Special Event on May 9, 2017;
- Arizona Association of General Contractors at the May 16, 2017 (and via telephone with AGC staff on May 9);
- American Council of Engineering Companies, AZ Chapter on June 7, 2017; and
- Certified Agencies Peer Group Meeting, on June 16, 2017.
Consultation with Organizations. ADOT discussed and/or distributed its proposed overall DBE goals and rationale for the goals to a wide variety of businesses and government entities, including DBEs, small businesses, other contractors, other consultant engineering firms and Local Public Agencies and Subrecipients of ADOT federal funding. Requests for comments were made along with the distribution of information. The information was distributed to the following organizations and their membership:

- ADOT’s DBE Professional Services and Construction Task Forces;
- Members of the Arizona Unified Certification Program (AZ UCP);
- American Council of Engineering Companies (ACEC) of Arizona;
- Associated General Contractors (AGC) of Arizona;
- American Indian Chamber of Commerce of Arizona;
- American Subcontractors Association of Arizona;
- Arizona Concrete Promotional Council;
- Arizona Hispanic Chamber of Commerce;
- Arizona Small Business Association;
- Arizona Society of Civil Engineers (Northern, Southern and Phoenix Chapters);
- Grand Canyon Minority Supplier Development Council;
- Greater Phoenix Black Chamber of Commerce;
- Minority and Small Business Alliance of Southern Arizona;
- National Association of Women Business Owners – Phoenix Metro Chapter;
- Phoenix Minority Business Development Agency;
- Arizona Transportation Builders Association (Formerly TUCA);
- Yuma Southwest Contractors Association;
- National Association of Minority Contractors (AMC) of Arizona; and
- Minority Supplier Development Council (MSDC).
Public Notice. ADOT published a series of public notices announcing its proposed amended overall DBE goals and rationale for the goals in Phoenix and Tucson newspapers. ADOT also used email blasts, meetings and other communication tools to make the public aware of the proposed DBE goals. The notices stated that ADOT will accept comments on its overall DBE goals for 39 days. The notices were also posted on ADOT’s website.

All documents related to the proposed goal and methodology and draft Availability Study were available for review from May 15 through June 22 online at https://www.azdot.gov/business/business-engagement-and-compliance. The documents were also available for review at the ADOT Business Engagement and Compliance Office, 1801 W. Jefferson St., Phoenix, AZ during normal business hours.

At any time during the public comment period, comments could also be provided in the following ways:

- Verbal testimony: At public meetings.
- Email: info@keenindependent.com.
- By mail: ADOT Business Engagement and Compliance, 1801 W. Jefferson St., Phoenix, AZ 85007.
- Via fax: 602-712-8429.

All public comments received by June 22, 2017 were reviewed before ADOT submitted the final DBE goal request to FHWA.

Public Meetings. ADOT conducted two public meetings in two Arizona locations in June of 2017 to provide information about its proposed overall DBE goals and rationale for the goals, as well as to solicit comments about the goals and Availability Study results from meeting participants. At each meeting, ADOT solicited participants for testimony about its goal, Availability Study and about local marketplace conditions for minority- and women-owned businesses and other companies. Participants were invited to submit testimony in either verbal or written format. The two public meetings were on:

- June 13 at Ellie Towne Community Center, 1660 W. Ruthrauff Rd. in Tucson.
- June 15 at the ADOT Business Engagement and Compliance Office, 1801 W. Jefferson St. in Phoenix.

Each meeting was held from 4 pm to 6 pm. Attendees signed in at each public meeting and had the opportunity to fill out comment cards. Each meeting began with a brief presentation of the proposed DBE goals and methods to calculate those goals. Court reporters transcribed discussion during the question and answer period and the public comment portion of each public meeting. A Spanish translator was available at each meeting. ADOT also provided a webinar option for attending each public meeting.

Public meeting attendance was as follows:

- Attendance for the two public meeting locations totaled 18 people, not including ADOT, FHWA, FAA, FTA or Keen Independent study team representatives.
  Five members of the public participated in the Tucson public meeting and 13 participated in the Phoenix public meeting. Attendance counts include virtual participants.
  It is possible that some members of the public attended without signing in. Again, these figures do not include ADOT, FHWA, FAA or FTA staff or Keen Independent team members.

- Participants spoke at each meeting. Five different people had questions or comments.
• From May 15 through June 22, 2017, five different individuals or organizations submitted written comments.

The following discussion summarizes comments, questions and corresponding responses given by ADOT or Keen Independent at the public meetings.

**Questions and Comments from the Public Meetings**

There were opportunities for public meeting participants to hear a presentation about the Availability Study and ADOT’s proposed preliminary overall DBE goals, as well as about other topics. In addition to providing comments, participants had a number of questions.

Comments and questions from the Tucson meeting were as follows (all from same participant):

- The co-owner of a professional engineering services firm asked whether ADOT submitted one goal for all work overall or separate goals for construction and professional services. Mr. Keen of Keen Independent responded that it is one DBE goal that combines all types of work. There are separate overall DBE goals for each USDOT operating authority: one for FHWA, one for FAA and one for FTA. (However, project goals can be set differently on an engineering contract versus a construction contract. This was also discussed at the meeting.)

- The business owner asked whether participation statistics are broken out by construction and professional services, even though it is not required. ADOT responded that data on DBE participation by construction and design are available on ADOT’s website.

- The business owner went on to ask if any kind of analysis of participation is performed by size of DBE. Mr. Keen explained that a big part of the availability analysis is to look at the size of contracts and subcontracts a firm bids on, as explained in the Availability Study report.

Comments and questions from the Phoenix meeting included the following:

- A city deputy director asked about the methodology used to set the 5 percent race-neutral projection for future FHWA-funded contracts. Mr. Keen of Keen Independent explained that ADOT achieved 5 percent participation on FHWA- and state-funded contracts without DBE contract goals from July 2007 through June 2013, as reported in the 2015 Disparity Study. He reported that these data remain the best estimate of ADOT neutral participation without contract goals and were therefore used when making the neutral projection for FHWA-funded contracts for FFY 2018 through FFY 2020.

- A male representative from an engineering consulting firm inquired if there will ever come a time in Arizona when groups like disabled service vets will get recognized for goals like DBE firms. Veteran status is not one of the presumptively disadvantaged groups recognized under the current DBE Program. He stated, “With as many vets that we have, they should look at that.” Mr. Keen pointed out opportunities to apply for DBE certification for reasons other than disadvantage based on race, ethnicity or gender. Mr. Keen also brought up states such as Minnesota and California that have serviced disabled veterans business programs or other veteran-owned business programs for state-funded contracts.

- A white female president of a DBE-certified specialty engineering firm asked where the draft study could be found. Ms. Samartinean of ADOT responded that it is on the BECO (Business Engagement and Compliance) website.
The white female president of a DBE-certified engineering firm asked if there is any consideration for the change in ADOT contracting for the race and gender neutral versus conscious portions of the DBE goal “given that ADOT is getting rid of some of their smaller discipline specific on-calls, which is where most of the neutral goal ... on the services side.” “We are all being asked to sub under larger firms for a project development on-call.” She indicated that this might reduce the amount of race-neutral DBE participation ADOT has obtained for professional services. Mr. Keen said that ADOT might need to make up any reduction in neutral participation of DBE professional services firms as prime consultants in other ways to achieve 5 percent DBE participation through neutral means. He did point out that ADOT has achieved the neutral portion of its goal for FHWA-funded contracts for a recent six-month reporting period. Ms. Samartinean also indicated that ADOT has a One More campaign that encourages contractors and consultants to add DBEs beyond those needed to meet a goal. (Add “one more DBE to their contract” so it will count as race-neutral participation.)

The white female president of a DBE-certified engineering firm asked if ADOT’s DBE goals were applied for contracts awarded through ADOT Procurement. Ms. Samartinean said that it was. She went on to report that some contracts through Procurement now have DBE contract goals.

The white female president of a DBE-certified engineering firm asked if there were any disparity results in the new study that separately examined construction and professional services. Mr. Keen explained that the 2017 Study only researched availability and that no disparity analyses were performed. He added that no disparity study was required at this time given the recent timing of the 2015 Disparity Study, but an update will be needed in the future.

The same individual representing a DBE-certified engineering firm also discussed whether ADOT should have separate overall DBE goals for construction and for professional services. She noted that it was not a requirement in the federal regulations to do so. However, she pointed out that some states have had separate goals and programs for construction and for professional services. She also said that she was concerned “that so much of the goal has been met in the construction side...” and that her business is on the professional services side.

This business owner and Mr. Keen discussed other states such as Oregon that, in the past, had different DBE Program operation for construction and professional services. Mr. Keen explained that the Federal DBE Program requires a single overall DBE goal for FHWA-funded contracts, for example, and that the other states were operating those programs under waivers granted by the federal government. He indicated that courts have considered this issue and have approved single overall DBE goals and program operations that encompass both construction and professional services. Mr. Keen also said that agencies such as ADOT could still separately track DBE participation for construction and for professional services, and regularly do so on individual contracts.
A deputy director from an Arizona city asked about the relative share of total FHWA-funded contract dollars that are for professional services. He reported that, as a subrecipient of ADOT, he does not see that many professional services contracts. Mr. Keen recalled that engineering-related services accounted for between 10 and 18 percent of total ADOT FHWA-funded contract dollars. This includes ADOT-awarded and local public agency-awarded contracts.

The white female president of a DBE-certified engineering firm indicated concern about the preliminary DBE goal for FTA-funded contracts and why it was lower than the current goal for FTA. Mr. Keen explained that the difference in the goal had to do with a somewhat different mix of FTA-funded contracts examined in the 2017 Availability Study compared with the 2015 Disparity Study, and that he recommended that ADOT revisit the preliminary goal before submitting it several years from now. For example, ADOT will have additional information about recent DBE participation by the time it needs to submit the proposed DBE goal to FTA.

This business owner went on to say, “My concern around that is the State, and MAG in particular, is looking at their next round of funding ... and a large portion of the new projects for the professional services side are heading towards the transit realm, less towards highways ... a drop in that goal, I think, would have a serious impact.”

Mr. Keen stated that the goal for ADOT based on the mix of FTA-funded work for ADOT might be very different than the appropriate goal for local transit agencies based on their unique mix of FTA-funded contracts. ADOT’s goal for FTA-funded contracts might not be indicative of the goal for large local transit agencies.

The Hispanic American male owner of a DBE-certified engineering firm, who was able to attend the end of the Phoenix public meeting, asked about how the DBE goals were set and why they were not increasing more. Mr. Keen gave a brief overview of the goals and the methods for determining the proposed goals.

Written Questions and Comments

Written comments and questions included the following:

- The non-minority female president of a DBE-certified specialty engineering firm provided written testimony after attending the Phoenix public meeting. She wrote, “ADOT will not be advertising specific on-calls for specialty services such as traffic engineering - has this loss of race and gender neutral participation been considered in the future split of the 9.55% goal proposed. When disparity was presented a couple of years ago, there was a large swing in utilization between professional services and construction for certain affected groups. I would like to see ADOT monitor this to ensure that groups don’t get excluded based on these vast differences between construction and professional services.”

- In written testimony, a minority-owned male general contracting and engineering business owner wrote, “Are there statistics showing success rates or companies that have become successful due to the DBE program? As a DBE, I feel like I have a target on my back as ADOT contracted inspectors seem to feel that the DBE is a give-a-way program. Are there seminars that the inspectors and district engineers attend that inform them otherwise?”

- In written testimony, a male owner of a Service Disabled Veteran-Owned construction business (8a certification pending) wrote, “This is the biggest scam ADOT is running. While the Federal Government specifically sets aside work for Service Disabled Veteran Small Business, the State of Arizona does not recognize Veterans as DBE. Therefore anybody else can be a DBE
except Vets. The Federal Government should withdraw funding for projects that don’t have set aside for Vets.”

- In written testimony, the male owner of a Service-Disabled Veteran-Owned Small Business Concern asked, “What is your plan for doing business with Service Disabled Veteran Owned companies?”

- An ADOT Planning Program Manager submitted the following DBE recommendations for low-cost studies or projects with limited to no DBE-eligible tasks: (1) consider flexibility with DBE Goals, (2) consider reducing the size of the Good Faith Effort Form used when a DBE goal could not be met, and (3) allow DBE exemption for certain studies/projects which have limited DBE tasks. He wrote, “My understanding is that if a firm cannot meet a DBE goal, they must fill out a Good Faith Effort Packet explaining why they could not meet the DBE goal, which must then be approved. This may deter some firms from responding to a Request for Quote when the dollar amount of the study/project is so very low.”