ARIZONA DEPARTMENT OF TRANSPORTATION
2020 DISPARITY STUDY
Executive Summary

Prepared for
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Executive Summary
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EXECUTIVE SUMMARY.
2020 ADOT Disparity Study
Keen Independent Research LLC

The Arizona Department of Transportation operates the Federal Disadvantaged Business Enterprise (DBE) Program to assist disadvantaged business enterprises on contracts that use U.S. Department of Transportation (USDOT) funds. Every three years, ADOT must set an overall annual goal for participation of DBEs in those contracts. The Federal DBE Program applies to USDOT-funded contracts awarded by ADOT and by local agencies that receive USDOT funds through ADOT.

The 2020 Disparity Study provides information about minority- and women-owned firms and DBEs to help ADOT set overall DBE goals and operate the Federal DBE Program. ADOT engaged Keen Independent Research (Keen Independent) to complete this research. Keen Independent conducted studies for ADOT in 2014, 2015 and 2017 using the same methodology as the 2020 study.

David Keen, Principal of Keen Independent, has led similar disparity studies for many state DOTs across the country, including most of the state DOTs in the western part of the United States. These research projects are called “disparity studies” because they determine if there is a disparity between the utilization and availability of minority- and women-owned firms in an agency’s contracts.

Summary of Results

ADOT must set a separate overall DBE goal for each of three types of USDOT funds it receives. Each goal is expressed as the percentage of contract dollars that will go to firms certified as DBEs. In addition to setting overall goals, ADOT must project whether it can meet each goal entirely through race- and gender-neutral means (such as training, outreach and small business programs). If not, ADOT must determine how much of each overall goal must be achieved through race- and gender-based programs such as DBE contract goals.

Keen Independent helped determine previous overall DBE goals based in part on the relative number of minority- and women-owned firms in Arizona available for ADOT transportation work. The 2019 update of that survey found that the share of firms that are minority- or women-owned increased by 5 percentage points since 2015. As a result, proposed overall DBE goals have increased.

- **FHWA-funded contracts.** Based on results of the 2017 Availability Study, ADOT set an overall DBE goal for federal fiscal years (FFYs) 2018 through 2020 of 9.55 percent for contracts using Federal Highway Administration (FHWA) funds. ADOT projected that it would meet that goal through a combination of race-neutral means, such as small business assistance, and through race-conscious measures such as DBE contract goals. Based on information in the 2020 Disparity Study, ADOT might set a new overall DBE goal of 12.89 percent for FHWA-funded contracts beginning fall 2020.

Study results indicate that ADOT would need to use DBE contract goals as well as small business programs and other neutral means to meet this overall goal.
- **FAA-funded contracts.** ADOT receives funds from the Federal Aviation Administration (FAA) for projects at Grand Canyon National Park Airport (a state-owned airport) and other contracts. Its current 8.05 percent overall DBE goal for these contracts extends through September 30, 2021. ADOT does not apply DBE contract goals to these contracts.

  Study results suggest that an overall DBE goal of 10.69 percent would be supportable for the three years beginning October 1, 2021, with ADOT continuing to attempt to meet all of it through small business programs and other race-neutral means.

- **FTA-funded contracts.** ADOT receives funding through the Federal Transit Administration (FTA) to support rural transit operations throughout the state. Most large transit agencies in Arizona directly receive FTA funding and are responsible for their own operation of the Federal DBE Program.

  For the three years ending September 30, 2021, ADOT has a 11.00 percent overall DBE goal for FTA-funded contracts. ADOT does not apply DBE contract goals to these contracts.

  This study provides information to help ADOT set a new DBE goal for those contracts for the three years beginning October 1, 2021. Results suggest that an overall DBE goal of 14.64 percent would be supportable, with ADOT continuing to meet the goal through small business programs and other neutral means.

Figure ES-1 summarizes these results. As a point of comparison, actual DBE participation for FHWA-, FAA- and FTA-funded contracts from October 2013 through September 2018 was about 10 percent, 8 percent and 23 percent, respectively.

**Figure ES-1.**
Information for ADOT consideration concerning potential overall DBE goals and projections of race-neutral for FHWA-, FAA- and FTA-funded contracts

<table>
<thead>
<tr>
<th>Component of overall DBE goals</th>
<th>FHWA</th>
<th>FAA</th>
<th>FTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall goal</td>
<td>12.89</td>
<td>10.69</td>
<td>14.64</td>
</tr>
<tr>
<td>Neutral projection</td>
<td>-</td>
<td>4.72</td>
<td>-</td>
</tr>
<tr>
<td>Race-conscious projection</td>
<td>8.17</td>
<td>0.00</td>
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</tr>
</tbody>
</table>

Source: Keen Independent Research analysis.
Disparity Study Research

The Disparity Study began in February 2019.

- Throughout the study, Keen Independent consulted with an Internal Stakeholder Group that included staff across ADOT departments and different groups of external stakeholders that included businesses and trade associations. ADOT and Keen Independent also met with FHWA officials and local public agency representatives.

- Keen Independent examined ADOT and local public agency transportation-related contracts awarded from October 2013 through September 2018. The study team collected data on ADOT’s transportation contracts and compiled information on local public agency (LPA) contracts that used USDOT money administered by ADOT. Keen Independent analyzed more than 12,000 ADOT prime contracts and subcontracts, and more than 2,000 contracts for local agencies that together totaled nearly $4.2 billion.

- The study team isolated the effects of the South Mountain Freeway mega-project when examining utilization and availability, including when establishing the goal for future FHWA-funded contracts. For example, Keen Independent assumed that FHWA-funded contracts for FFY 2021 through FFY 2023 would not include a mega-project and instead reflect typical highway improvement and maintenance work.

- Keen Independent included ADOT’s state-funded transportation contracts in the study due to their dollar volume and similarity to FHWA-funded highway contracts, and because there are no DBE contract goals on these contracts. One of the disparity analyses in the study combined these state-funded contracts with FHWA-funded contracts for which no DBE contract goals applied.

- Since 95 percent of ADOT contract dollars go to firms with Arizona offices, Keen Independent collected and analyzed data about the Arizona transportation contracting industry. The study team also collected qualitative information through input gathered from more than 440 individuals representing businesses, trade associations and other groups throughout the state.

- Most of ADOT’s transportation contract dollars are related to highway construction and engineering, but the study also includes vertical construction, planning studies, transit services and other types of transportation-related work. Keen Independent classified ADOT work into 32 different subindustries and collected availability information for each subindustry.

- The study team completed telephone surveys with 4,859 businesses across the state to determine the availability of firms indicating qualifications and interest in ADOT and local agency transportation-related work. After considering answers to several screening questions, the final availability database included 996 companies. These companies identified the race, ethnicity and gender of the business owner and their annual revenue.
To determine utilization results, Keen Independent identified the race, ethnicity and gender ownership of companies receiving ADOT prime contracts and subcontracts through sources including telephone interviews with those firms. Results examined minority-owned firms (by race and ethnicity), white women-owned firms and majority-owned firms (firms that are not minority- or women-owned). ADOT reviewed the ownership data for these firms.

The study team performed disparity analyses by comparing the utilization of minority- and women-owned firms to the availability benchmarks developed in the study.

Keen Independent assisted ADOT in considering overall DBE goals for FHWA-, FAA- and FTA-funded contracts and projecting the portion of those goals that could be met through race- and gender-neutral means.

ADOT distributed the draft 2020 Disparity Study for public comment. Keen Independent reviewed and incorporated feedback received into the final report.

**Regulations governing overall DBE goals.** Keen Independent and ADOT followed federal regulations in Title 49 Code of Federal Regulations (CFR) Part 26 and USDOT guidance when determining how to (a) set overall DBE goals for USDOT-funded contracts, (b) project how much of a goal will be met through race-neutral means, and (c) project the portion of the goal (if any) to be met through programs such as DBE contract goals.

The 2005 Ninth Circuit Court of Appeals decision in *Western States Paving Co. v. Washington State DOT* is also important for this study. The Court upheld the constitutionality of the Federal DBE Program, but it found that the Washington State DOT failed to show its implementation of the Federal DBE Program to be narrowly tailored (see Chapter 2 and Appendix B of the full report). The Disparity Study provides information for ADOT to ensure that its operation of the Federal DBE Program meets these legal requirements.

**Availability of minority- and women-owned firms and other businesses for ADOT transportation contracts.** Figure ES-2 on the following page describes race, ethnicity and gender ownership of the 996 firms in the availability database for this study. Minority-owned firms (MBEs) comprise about 23 percent of businesses in Arizona available for ADOT transportation contracts. White women-owned firms (WBEs) account for about 17 percent of the companies available for ADOT work. Comparable information from the 2015 Disparity Study shows that the share of both MBEs and WBEs increased between the 2015 and 2020 studies.

The study team then identified the specific characteristics of each of the 14,399 prime contracts and subcontracts from October 2013 through September 2018 that were included in the study and then counted the number of minority-, women- and majority-owned businesses available for each of those prime contracts and subcontracts. Type of work, size and location were considered. Importantly, the results took into account the “bid capacity” that each firm indicated in the availability survey.1

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1 Firms were asked to identify the size of the largest contract the firm had won or bid on in recent years. As an example, if a firm had only bid on contracts or subcontracts up to $1 million, it was not counted as available for a $5 million ADOT contract.
Race, ethnicity and gender ownership of businesses included in the availability database, 2015 and 2020

Note:
Numbers rounded to nearest tenth of 1 percent.
Percentages may not add to totals due to rounding.
Only a portion of MBE/WBEs are DBEs.

Source:
Keen Independent Research availability analysis.

Once availability for each contract and subcontract was determined, Keen Independent dollar-weighted results based on the size of the contract or subcontract. MBE/WBEs accounted for about 40 percent of available firms, but availability benchmarks on a dollar-weighted basis were 23 percent to 32 percent of contract dollars after performing the analysis described above (see Figure ES-3).

Figure ES-3.
Overall dollar-weighted MBE/WBE availability estimates for ADOT FHWA-, state-, FAA- and FTA-funded contracts, October 2013–September 2018

Source: Keen Independent Research availability analysis.
The proposed overall DBE goals for FHWA-, FAA- and FTA-funded contracts are lower than the benchmarks shown above. One reason is that not all MBE/WBEs are current or potential DBEs. For example, some are too large to be certified as a DBE and are therefore not counted as a potential DBE in the availability analyses that form the basis of the goal.

**Utilization of minority- and women-owned firms and DBEs.** Figure ES-4 presents the share of total contract dollars going to MBE/WBEs for contracts examined in the study. The darker portion of each bar presents the utilization of MBE/WBEs that were DBE-certified.

Focusing on results for the $3.7 billion in FHWA-funded contracts from October 2013 through September 2018, minority- and women-owned firms obtained 18 percent of these contract dollars. About 10 percent of FHWA-funded contract dollars went to firms certified as DBEs\(^2\) and the difference, 8 percent, went to noncertified minority- and women-owned firms.

Compared with FHWA-funded contracts, utilization of DBEs was lower on state-funded contracts (3% of contract dollars), but overall participation of minority- and women-owned firms was higher (20%). MBE/WBE participation on these contracts was primarily from firms not certified as DBEs.

MBE/WBE participation was higher for FAA-funded (27%) and FTA-funded contracts (30%).

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\(^2\) Most firms certified as DBEs are minority- or women-owned firms. White male-owned firms can also meet the federal certification requirements and be certified as DBEs if they demonstrate they are both socially and economically disadvantaged, as described in 49 CFR Part 26.67(d).
**Key results from the disparity analysis.** In one of the disparity analyses in the study, Keen Independent compared the utilization and availability of minority- and women-owned firms for FHWA- and state-funded transportation contracts that did not have DBE contract goals. Results for those contracts best indicated results for FHWA-funded contracts if ADOT did not operate a DBE contract goals program for any of its contracts.

About 8 percent of ADOT contract dollars went to minority-owned firms, substantially less than the 25 percent that might be expected based on the availability analysis. As presented in Chapter 6 of the report, further analysis by racial and ethnic group identified substantial disparities for African American-, Asian-Pacific American-, Hispanic American-, Subcontinent Asian American- and Native American-owned firms.

As shown in Figure ES-5, white women-owned firms received 4 percent of FHWA- and state-funded contract dollars where DBE goals were not applied, substantially less than the 8 percent that might be expected from the availability analysis.3

**Figure ES-5.**

MBE and WBE utilization and availability for FHWA- and state-funded contracts without DBE contract goals, October 2013–September 2018

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3 As discussed in Chapter 6, there was one firm that identifies itself as a WBE that is counted as majority-owned in the study based on the specific reasons used in a previous ADOT denial of certification.
Quantitative and qualitative information about the local marketplace. Federal courts have found that Congress “spent decades compiling evidence of race discrimination in government highway contracting, barriers to the formation of minority-owned construction businesses, and barriers to entry.”4 Congress found that discrimination has impeded the formation and expansion of qualified MBE/WBEs. Barriers that Congress found on a national level also appear in Arizona. Quantitative and qualitative information about the Arizona transportation contracting marketplace suggests that there is not a level playing field for minority-owned firms or for women-owned firms.

Entry and advancement. Keen Independent identified barriers for people of color and women entering and advancing in the Arizona construction and engineering industries, which negatively affected the number of MBE/WBE construction and engineering companies in business today.

Business ownership rates for minorities and women in the transportation contracting industry. The study team identified disparities in business ownership rates for minorities and women that depress the relative number of MBE/WBEs available for ADOT construction and engineering work.

Access to capital. Potential barriers associated with access to capital may affect business outcomes for MBE/WBEs. There is evidence that minority- and women-owned firms do not have the same access to capital as majority-owned firms.

Success of businesses in the transportation contracting industry. Minority- and women-owned construction and engineering firms in Arizona had lower revenue than majority-owned firms. This may indicate discrimination and it also demonstrates that any disadvantages for small businesses disproportionately affect MBEs and WBEs.

Some minority and female business owners reported that they were disadvantaged by their size and lack of relationships within the industry. Some interviewees also reported negative stereotypes and other forms of discrimination against minority- and women-owned firms.

Race-Neutral Measures

Race-neutral measures include any initiatives that increase the availability and competitiveness of small businesses. ADOT has had considerable business assistance programs in place for many years. ADOT has further enhanced assistance to DBEs and other small businesses, including:

- Additional outreach to certify DBEs;
- Small Business Resource Center;
- DBE Business Development Program;
- One-on-One Business Counseling;
- Lunch and Learn Sessions;
- Business Coach on Demand online training; and
- “Just One More” campaign to encourage use of DBEs beyond a contract goal.

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4 Sherbrooke Turf, Inc. v. Minnesota DOT, 345 F.3d, 970 (8th Cir. 2003) (citing Adarand Constructors, Inc., 228 F.3d at 1167 – 76); Western States Paving Co. v. Washington State DOT, 407 F.3d 983, 992 (9th Cir. 2005).
There are only a few general areas of race- and gender-neutral initiatives employed by other state DOTs that ADOT has not implemented (see Chapter 8). Some of the most notable are:

1. Small business contract goals programs;
2. Small prime contracts programs;
3. Changes to state prequalification systems for contractors;
4. Unbundling of contracts;
5. Working capital loan programs; and

ADOT might need state legislative action to authorize use of some of these measures.

**Development of the Overall DBE Goals and Neutral Projections**

As described earlier in this Executive Summary, Keen Independent compiled availability data through surveys with businesses in Arizona. Only businesses reporting their qualifications and interest in ADOT and local agency transportation-related prime contracts and subcontracts were included in the final analyses. Some of those firms were current or potential DBEs.

**Base figure analysis using results of dollar-weighted availability.** Keen Independent determined that ADOT and local agency prime contracts and subcontracts from October 2013 through September 2018 (not including South Mountain Freeway) best reflect the variety of USDOT-funded contracts expected in future years. As previously described, to calculate availability of DBEs for a prime contract or subcontract, Keen Independent calculated:

(a) Number of current/potential DBEs available for that type, size and location of work;
(b) Total number of firms available for that work; and
(c) Percentage DBE availability for that prime contract or subcontract, calculated by dividing (a) by (b).

Keen Independent then dollar-weighted the percentage DBE availability results for each prime contract and subcontract to develop overall DBE availability figures for FHWA-, FAA- and FTA-funded contracts.

**Step 2 adjustments.** Federal regulations require ADOT to consider “step 2 adjustments” when determining overall DBE goals. These adjustments raise or lower the overall goal from what it would be only considering current availability of DBEs (and potential DBEs) for an agency’s contracts (which is called the “base figure” in the federal regulations).
For FHWA-, FAA- and FTA-funded contracts, Keen Independent calculated potential upward and downward adjustments.

- **FHWA.** The base figure (i.e., “unadjusted” availability) for FHWA-funded contracts is 16.15 percent based on study results. The proposed 12.89 percent overall DBE goal for FHWA-funded contracts reflects a 3.26 percentage point downward step 2 adjustment to account for “current capacity of DBEs to perform work” as measured by the volume of work on ADOT’s FHWA-funded contracts that DBEs have performed in recent years (16.15% - 3.26% = 12.89%). Chapter 9 of the report explains these analyses.

- **FAA.** The base figure analysis for FAA-funded contracts indicated DBE availability of 19.72 percent for these contracts. The proposed overall DBE goal reflects a 9 percentage point downward step 2 adjustment. (Chapter 10 provides these results.)

- **FTA.** The proposed overall DBE goal for FTA-funded contracts was determined from the base figure analysis for these contracts (14.64%). Keen Independent calculated potential step 2 adjustments, each of which would have increased the overall DBE goal for FTA-funded contracts. (See Chapter 11.)

**Projections of the share of the overall goal to be met through neutral means.** MBE/WBE utilization and DBE participation for past FAA- and FTA-funded contracts suggest that ADOT could meet the proposed goals solely through neutral means, especially if some of the minority- and women-owned firms receiving these contracts could be certified as DBEs.

For FHWA-funded contracts, it appears that ADOT could achieve some but not all of the 12.89 percent overall DBE goal solely through small business programs and other neutral measures. For example, 5.9 percent of ADOT’s FHWA-funded contract dollars went to minority- and women-owned firms that were not DBE-certified but appear that they could be certified. If ADOT encouraged more of these firms to be certified, it could count this additional neutral participation toward its overall DBE goal.

Even with more neutral participation of DBEs on FHWA-funded contracts, ADOT may need to continue selective use of DBE contract goals for FFY 2020 through FFY 2022.
Public Comment Process for the 2020 Disparity Study Report

ADOT published a draft of the disparity study report for public comment in April 2020. The public could make comments on the draft report and proposed overall DBE goals through June 30, 2020.

ADOT also held two virtual webinars concerning the Disparity Study and ADOT’s proposed DBE goals:

- Tuesday, May 12, 2020 from 1:00 to 2:30 pm; and
- Monday, May 18, 2020 from 4:00 to 5:30 pm.

Information about the webinars was available at www.azdot.gov/DBEDisparityStudy. In addition, the public was able to submit feedback and provide written comments through the following means:

(a) During the webinars;
(b) Online at the above web address;
(c) By calling the study telephone hotline at 602-730-0466;
(d) Via email at adotdisparitystudy2019@keenindependent.com; and
(e) By regular mail sent to Keen Independent Research LLC, 701 N. 1st St., 2nd Floor, Phoenix, AZ 85004.

After the release of the draft report and proposed overall DBE goals, 18 individuals submitted comments on behalf of themselves or their organizations during the comment period (see Section G of Appendix J for additional information). These and other comments received during the webinars and through other communications were reviewed and incorporated into the final report.

Keen Independent and ADOT then prepared final documents for USDOT concerning ADOT’s proposed overall DBE goals for FHWA-, FAA- and FTA-funded contracts. This process follows the approach for the 2014 Availability Study, 2015 Disparity Study and the 2017 Availability Study that Keen Independent prepared for ADOT.