EFFECTIVE UTILIZATION OF DISADVANTAGED BUSINESS ENTERPRISES (DBE) IN ALTERNATIVE DELIVERY PROJECTS: STRATEGIES AND RESOURCES TO SUPPORT THE ACHIEVEMENT OF DBE GOALS

GEORGIA DOT RESEARCH PROJECT 14-42

FINAL REPORT
EFFECTIVE UTILIZATION OF DISADVANTAGED BUSINESS ENTERPRISES (DBE) IN ALTERNATIVE DELIVERY PROJECTS: STRATEGIES AND RESOURCES TO SUPPORT THE ACHIEVEMENT OF DBE GOALS

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Contract with
Georgia Department of Transportation

In cooperation with
U.S. Department of Transportation
Federal Highway Administration

April 2016

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<td>7. Author(s):</td>
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<td>8. Performing Organ. Report No.:</td>
<td></td>
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<tr>
<td>9. Performing Organization Name and Address:</td>
<td>Georgia Tech Research Corporation 505 10th Street Atlanta, GA 30318</td>
<td>10. Work Unit No.:</td>
<td></td>
</tr>
<tr>
<td>11. Contract or Grant No.:</td>
<td>0013245</td>
<td>12. Sponsoring Agency Name and Address:</td>
<td>Georgia Department of Transportation Office of Materials &amp; Research 15 Kennedy Drive Forest Park, GA 30297-2534</td>
</tr>
<tr>
<td>13. Type of Report and Period Covered:</td>
<td>Final; April 6, 2015 – April 6, 2016</td>
<td>14. Sponsoring Agency Code:</td>
<td></td>
</tr>
<tr>
<td>15. Supplementary Notes:</td>
<td>Prepared in cooperation with the U.S. Department of Transportation, Federal Highway Administration.</td>
<td>16. Abstract:</td>
<td>This synthesis is a comprehensive review of the best knowledge and practices for stimulating effective utilization of Disadvantaged Business Enterprises (DBE) in the procurement and execution of transportation projects, using design-build and other alternative delivery methods. The study also identifies ways in which the Georgia Department of Transportation’s (GDOT) Disadvantaged Business Enterprise (DBE) program can be enhanced and provides recommendations on effective practices for involving DBEs in Design-Build (DB) and other alternative delivery projects. This is done by conducting a cradle-to-grave review of DBE involvement in DB and other alternative project delivery systems, and synthesizing existing best practice strategies in State Departments of Transportation (DOTs). The research team identified three main challenges: (1) Identifying and communicating pre-award opportunities, (2) Diversifying DBE opportunities, and (3) Achieving the desired behavior in order to attain program goals. Eight recommendations along with targeted companion strategies were made to address these challenges and strengthen the agency’s existing DBE program including the following: developing an interactive web-based database; setting sub goals in contracts; ensuring monitoring and compliance; enhancing communication between DBE staff and project planners; encouraging unbundling of work packages in DB manual; and using explicit language in project documents.</td>
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<tr>
<td>17. Key Words:</td>
<td>Disadvantaged Business Enterprise, DBE, design-build, alternative delivery</td>
<td>18. Distribution Statement:</td>
<td></td>
</tr>
<tr>
<td>21. Number of Pages:</td>
<td>115</td>
<td>22. Price:</td>
<td></td>
</tr>
</tbody>
</table>
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Executive Summary

Since 1982, when the first Disadvantaged Business Enterprise Program (DBE) statutory provision was enacted, the United States Department of Transportation (USDOT) has been required to ensure that a minimum of 10% of all federally assisted highway and transit funds go to DBEs. The purpose of this program is to provide opportunities for the participation of minority-owned and women-owned businesses, and also small businesses, in federally funded transportation related projects. Such DBE participation has been achieved over the years with the appropriate guidance for traditional project delivery (design-bid-build).

However, in recent times, the onset of alternative project delivery methods such as design-build (DB) and public-private partnerships (P3) has created a challenge for state departments of transportation (DOTs) trying to implement the DBE program using traditional approaches. In the absence of federal regulations for DBE utilization in alternative delivery projects, most DOTs are grappling with DBE utilization, finding that there are differences in successful business practices in Design-Bid-Build in comparison with alternative delivery projects.

This research examines the involvement of DBEs in the DB and P3 project delivery systems, and synthesizes the existing best practice strategies in state DOTs for effectively utilizing DBEs in alternative project delivery systems. It also identifies opportunities and offers recommendations for enhancing Georgia Department of Transportation’s DBE Program. The research was conducted using the following: (i) a literature review and synthesis of relevant DBE material; (ii) a national survey of DBE implementation in DB and/or P3 in state DOTs; and (iii) in-depth case study analyses of DBE program implementation at six different DOTs: Oregon, Virginia, California, Minnesota, Colorado, and Utah.

The literature reveals that there are seven and 18 states, respectively, where DB and P3 project delivery methods are currently unauthorized. In the states that use these methods, the common challenges encountered while applying DBE program requirements include: the difficulty in setting DBE contract goals with limited project information, DBE program compliance being viewed as a low priority for prime contractors due to the complexities of DB projects, long lead times between the proposal date and actual engagement of subs, and engineering-related DBEs feeling left out of the process.

The results of the survey, however, show that some agencies are generally interested in providing more opportunities for DBEs in their jurisdictions and are therefore actively seeking ways of improving DBE utilization in alternative delivery projects. Of the 26 agencies that responded to the survey, four do not use the DB or P3 project delivery method. Of those that do, approximately a third set specific DBE goals in DB/P3 projects. Also, 18 (81%) of the responding DOTs have language in their Request for Proposals/Request for Qualifications (RFP/RFQs) that specifically address DBE utilization.
However, out of the total number of responding agencies, only 6 agencies stated that they had guidelines or a manual for DBE utilization in DB and/or P3 projects.

The survey also reveals a number of challenges faced by agencies with regard to setting DBE contract goals -- mostly for design, procurement and construction stages of the project. These challenges include, among others, unavailability of DBEs, framing of RFP language to align with goals, and communicating DBE program expectations to contractors. Despite these challenges, most agencies still work toward achieving their set goals by ensuring compliance through the use of quarterly reviews and oversight by district personnel. Some respondents also recommend that in order to improve monitoring and oversight, agencies must: (1) create a uniform and standard process and/or strategy for monitoring and oversight of DBE goals; (2) develop an automated system to centralize filing of administrative contract documents and data collection; and (3) increase communication between engineering staff and DBE program staff.

The case study analyses provide an in-depth look at the actual DBE program implementation processes for Oregon (OR), Virginia (VA), California (CA), Minnesota (MN), Colorado (CO) and Utah (UT). Some distinctive elements of these programs were identified. First, similar to Colorado Department of Transportation (CDOT) and California Department of Transportation (Caltrans), the Minnesota Department of Transportation (MnDOT) sets separate goals for the design and construction phases of DB/P3 projects, and reflects this with specific language in the contract documents. Also, in order to provide contractors with more flexibility, MnDOT allows the submission of detailed DBE commitments after the contract award. During the course of the project, the selected design-builder or its designated DBE liaison must provide the agency with information for all its selected subcontractors; these include the name, total dollar amount of the subcontract, specific work items, estimated quantities of work, and individual unit prices. Caltrans uses a slightly similar, but more detailed approach to ensure that DBE contract goals are met. This entails the submission of a DBE Performance Plan by proposers. The document is scored on a pass-fail basis, and requires the proposer to outline their plans on how they intend to achieve the DBE goal. The DBE Performance Plan includes the identification and listing of DBE commitments and the types of work associated with these commitments. Also, the proposer may include possible strategies to be implemented to achieve the project's DBE goals.

The case study analyses also shed light on some of the innovative ways agencies build DBE capacity as a strategy to increase DBE availability and encourage diversification of work types performed by DBE firms. For example, the CDOT through its Connect2DOT initiative, offers the LEADING EDGE ™ for Transportation program. This is a 10-week strategic planning program for contractors and professional service providers designed to develop leadership skills, facilitate key introductions within the business community, generate strategies for growth, and help DBEs perform successfully on CDOT projects. The program combines its courses with individual consulting, and covers topics including finance, management, marketing, bidding, and operations. Graduates of this program develop a
viable business plan which is reviewed by a consultant team at the end of the 10-week program. This plan is assessed again during quarterly check-ups.

Monitoring and oversight for DBE utilization in alternative delivery projects is also conducted using various strategies. Strategies implemented by the case study states include:

- Reviewing procurement documents to ensure that all necessary DBE requirements are included;
- Requiring the design-builder to have one or more dedicated team member(s) assigned to resolving DBE subcontractor issues and ensuring that the DBE goal for the project is successfully met;
- Monitoring of good faith efforts documentation on a quarterly basis;
- Use of in-house software to track payments made to DBEs during construction by entering line items within 30 days of receipt of payment. (This is to ensure that DBEs are properly utilized and paid on time); and
- Hosting monthly meetings with the contractor’s designated DBE representative to review diversity submittals, including prevailing wage rate payrolls/certified statement, and other topics.

Based on the literature review and synthesis, national survey, and case study analyses, the research team identified three main challenges that posed risks to the Georgia Department of Transportation’s (GDOT) DBE program implementation for DB/P3 projects. These challenges are related to:

1. Identifying and communicating pre-award opportunities,
2. Diversifying DBE opportunities, and
3. Achieving the desired behavior in order to attain program goals.

To address these challenges, the following eight recommendations with targeted companion strategies were made:

1. Develop an interactive web-based database;
2. Set sub goals in contracts;
3. Ensure monitoring and compliance;
4. Enhance communication between DBE staff and project planners;
5. Place DBE relevant information on project websites;
6. Build DBE capacity;
7. Encourage unbundling of work packages in DB manual; and
8. Use explicit language in project documents.

Collectively, these strategies can be used to enhance the agency’s existing DBE program.
1 Introduction

1.1 Purpose
This project, Effective Utilization of Disadvantaged Business Enterprises (DBE) in Alternative Delivery Projects: Strategies and Resources to Support the Achievement of DBE Goals, is sponsored by the Georgia Department of Transportation (GDOT) to develop a synthesis of the best knowledge and practices with supporting resources for the involvement of DBEs in Design-Build (DB) and other alternative delivery projects and to identify opportunities and provide recommendations for enhancing GDOT’s DBE program.

1.2 Background
The Disadvantaged Business Enterprise Program is a legislatively mandated United States Department of Transportation (U.S.DOT) program that applies to all federally assisted contracts for highway, transit and aviation. The DBE program was established by Congress in 1982 to:

- “Ensure nondiscrimination in the award and administration of DOT-assisted contracts;
- Help remove barriers to the participation of DBEs in DOT-assisted contracts, and
- Assist the development of firms that can compete successfully in the marketplace outside of the DBE program.” (USDOT Civil Rights, 2014)¹

The DBE program enables small businesses owned and controlled by socially and economically disadvantaged individuals to participate fairly in federally-assisted contracts issued by state transportation agencies (STAs). The Federal Highway Administration (FHWA) stewards and oversees the implementation of the DBE program by ensuring that recipients of federal dollars implement DBE programs in accordance with regulations that show progress in meeting program objectives; reducing fraud and ensuring that only qualified businesses participate; ensuring that recipients have appropriate training and technical assistance; and by managing the risks associated with DBE program implementation.

Traditionally, highway contracts issued by state DOTs have used the design-bid-build (DBB) delivery method where the design and construction phases are bid out and performed by separate firms. This delivery method has more agency control as opposed to newer methods of project delivery such as design-build (DB), public-private partnerships (P3), or construction manager/general contractor (CM/GC) contracts where project risk is gradually transferred from the agency over to the contractor. The current state of practice within many DOTs is that there are established goals and procedures for incorporating federally required DBE objectives into traditional construction contracts. In the absence of federal regulations for DBE utilization in alternative delivery of projects, good faith efforts are

required of State DOTs to establish goals and properly monitor and respond to the alternative delivery contractor’s actual performance for this requirement as contracts are executed. Most DOTs are grappling with DBE utilization, finding that there are differences in the ways in which business is conducted in the Design-Bid-Build environment in comparison with alternative delivery projects. Difficulties have been related to the timing, length and uncertainty related to the project. Some DOTs have found it difficult to utilize DBE participation on the project up front given the uncertainty about the particular work elements that might be available over the entire process of project planning, design, and implementation. Most DOTs that utilize Alternative Delivery have the same requirement to achieve DBE goals. Of particular interest for this synthesis are practices that have been effective in distributing utilization of specific types of work and service, and spreading the opportunities out in available markets where there is a pool of qualified, available and willing participants, as well as practices that have been less effective and the reasons why. Understanding what has worked in effectively engaging DBEs in Alternative Delivery as well as traditional Design-Bid-Build and understanding the obstacles to effective engagement will all be key components to characterizing best and effective practices.

1.3 Objective
The objective of this research is to develop a synthesis of best knowledge and practices on DBE involvement in design build and other alternative delivery programs, and to identify opportunities and provide recommendations for enhancing GDOT’s DBE Program.

1.4 Study Approach & Report Overview
This synthesis was conducted using a three pronged approach to understand the cradle-to-grave involvement of DBEs in DB and other alternative project delivery systems and develop best practice strategies for effectively using DBEs in DB and other alternative project delivery systems in state DOTs. First, a literature review was conducted and synthesis developed covering DBE federal regulations, alternative delivery methods, and the challenges encountered during DBE implementation. This was accomplished by reviewing the published literature, as well as State and U.S.DOT documents. The synthesis is presented in Chapter 2. Next, Chapter 3 describes the results of a national survey conducted to determine best practices for DBE involvement in DB and other alternative delivery projects in state DOTs. This survey provided information on the opportunities for enhancing Georgia Department of Transportation’s (GDOT) DBE Program. The survey had a 50% response rate (i.e. 26 out of 52 state DOTs responded) from mainly DOT employees who worked in offices related to civil rights/DBE or construction. Further information was then gathered through a set of follow-up interviews and a further in-depth examination of DBE program implementation at six different DOTs -- these case studies are discussed in Chapter 5. Subsequently, Chapter 6 synthesizes all relevant information to provide a set of targeted strategies along with examples and resources that offer opportunities for improving GDOT’s DBE Program. The report concludes with a summary and conclusions.
2 Literature Review

2.1 Understanding the DBE Program

The purpose of a Disadvantaged Business Enterprise (DBE) program within a transportation agency is to provide opportunities for the participation of minority-owned and women-owned businesses, and also small businesses, in all federally funded transportation-related projects. The program’s aim is to ensure that small disadvantaged businesses can compete fairly for federally funded transportation-related projects.

Enacted in 1982, the first DBE statutory provision required the United States Department of Transportation (USDOT) to ensure that a minimum of 10% of all federally assisted highway and transit funds go to DBEs, with a focus on minority business enterprises (MBEs). In 1987, the statutory DBE program was re-authorized and amended to include women within the groups categorized as disadvantaged. Thus, beginning in 1987, the DBE goal has encompassed both minorities and women. The objectives of the DBE program according to the Code of Federal Regulations (CFR) Part 26.1, include the following:

- “To ensure nondiscrimination in the award and administration of DOT-assisted contracts in the Department’s highway, transit, and airport financial assistance programs;
- To create a level playing field on which DBEs can compete fairly for DOT-assisted contracts;
- To ensure that the Department’s DBE program is narrowly tailored in accordance with applicable law;
- To ensure that only firms that fully meet eligibility standards are permitted to participate as DBEs;
- To help remove barriers to the participation of DBEs in DOT-assisted contracts;
- To assist the development of firms that can compete successfully in the marketplace outside the DBE program; and
- To provide appropriate flexibility to recipients of Federal financial assistance in establishing and providing opportunities for DBEs.” (49 CFR Part 26)

The three main USDOT Operating Administrations (OAs) involved in the DBE program are the Federal Highway Administration (FHWA), the Federal Aviation Administration (FAA) and the Federal Transit Administration (FTA), with general program oversight by the Departmental Office of Civil Rights (DOCR). The program is administered at the state and local levels using Title 49, Part 26 (previously Part 23)\(^\text{2}\) of the Code of Federal Regulations

\(^{2}\) Unlike its predecessor (amended in 1999), Part 26 emphasizes the creation of a race-neutral environment. This means an environment in which all small businesses benefit, not just DBEs.
In addition, the FAA under Title 49 Part 23 maintains a separate DBE program for concessions in airports. In November 2014, the USDOT issued a final rule which amended the DBE program at 49CFR Part 26 to improve program implementation.

The DBE program is funded through the Supportive Services (SS) Fund from which the U.S. Congress has authorized up to $10 million annually for the DBE/SS Program since 1982. State departments of highway and transportation that receive these funds may choose to provide DBE support services either in-house or by hiring consultants. Supportive services are activities that are designed to build capacity of certified DBEs and help them develop into viable and self-sufficient firms. Common supportive services for DBE programs include research and design, training and on-site technical assistance, assistance in estimation, as well as assistance in obtaining financing and bonding.

2.1.1 What are DBEs, MBEs, and WBEs?
The USDOT defines a DBE firm to include both Minority Business Enterprises (MBEs) and Women’s Business Enterprises (WBEs). These are firms in which there is at least 51% control and ownership by socially and economically disadvantaged individuals. An individual is classified as economically disadvantaged if that individual’s personal net worth does not exceed $1.32 million. Under federal law, socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias within American society because of their identification as members of groups without regard to their individual qualities. The USDOT presumes certain groups are disadvantaged including women, African Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans or other minorities found to be disadvantaged by the U.S. Small Business Administration. Persons who are not members of the groups above and own and control their businesses may also establish their social and economic disadvantage by providing the appropriate evidence to meet other eligibility criteria. Figure 2.1, from the U.S. Environmental Protection Agency (USEPA), offers a summary of DBE entities.

2.1.2 Key Components of DBE Program
In general, the DBE program is designed to increase the participation of certified DBE firms in highway and transit federal financial assistance programs. Achieving this purpose and all other supplemental goals require some key elements. There are four key elements in making the DBE Program functional within an agency: (1) DBE Certification; (2) Fair Share Objectives/Goals; (3) MBE/WBE Reporting; and (4) Good Faith Efforts and Contracting Requirements. These are discussed in some detail below.

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2.1.2.1 **DBE Certification**

The DBE certification component of the program is the most basic element of the program. The certification process verifies that a business qualifies to be designated as small or disadvantaged and ensures that only eligible firms that qualify are awarded contracts under the DBE program. Contractors and sub-contractors have to be certified by a certifying agent in order to be recognized and accepted during the bidding process. Firms are only required to be certified by one agency. In the state of Georgia for example, this may be accomplished either through the Georgia Department of Transportation (GDOT) or the Metropolitan Atlanta Rapid Transit Authority (MARTA). Once certified, a qualifying firm is recognized by all other federal recipients in the state. Likewise, a firm already certified by a qualifying certification agency in the State does not need any additional certification to bid for a DOT project. The USDOT provides rules and guidance on certification requirements through 49CFR Part 26. The latest final rule changes took place on November 3, 2014 and are meant to improve implementation of the program through amendments in areas including certification standards (i.e., size, economic disadvantage, ownership, and control); and certification procedures (i.e., prequalification, suspension, grounds for removal), and certification appeals.

2.1.2.2 **Fair Share Objectives/Goals**

The fair share objectives or goals are based on the capacity and availability of qualified, certified DBEs in the relevant geographic market for the grant recipient that are in the procurement categories of construction, equipment, services, and supplies contracts,
compared with the number of all qualified entities in the same market for the same procurement categories. The fair share objectives guide an agency in meeting its goal of maintaining and involving DBEs in contracting and purchasing opportunities. A federal fund recipient is not subject to any penalties if the agency does not meet its fair share goals, though documentation is required for the department’s efforts in achieving these goals. However, if fair share program policies within an agency are adopted to meet the agency’s goals, it further enhances grant recipients’ efforts in leveling the playing ground for DBEs in contracting and purchasing opportunities. It also enhances economic development in the community through the growth of small and disadvantaged businesses. Accordingly, it is imperative that recipient States develop policies that enable the agency to efficiently achieve its fair share objectives/goals.

2.1.2.3 DBE Goal Setting & Reporting
State and local transportation agencies are required to submit established DBE goals every three years. Agencies are also required to establish specific subcontracting goals through USDOT-assisted contracts throughout the year. Similarly, states are required to annually survey and compile a list of small business concerns (USDOT Final Rule, March 2010). In addition to these requirements, states must also adhere to the requirements of the 2012 national surface transportation legislation: Moving Ahead for Progress in the 21st Century (MAP-21), beginning in January, 2015. According to the MAP-21 legislation, state DOTs must report information on the percentage of DBEs within the state owned by non-minority women, minority women, and men.

The DBE goal-setting methodology may vary from one state to another. In general, a base figure is calculated using data from (i) a bidders list from the last three years, (ii) census data and a DBE directory, or (iii) a disparity study. States are also permitted to use DBE goals from a state that is substantially similar to it.

The general FHWA base formula for a particular local market area is shown in equation (1) below. Agencies are also free to propose and use other ways to calculate the base figure after approval from the USDOT. Determining the boundary of the local market area is an important step because this boundary may not necessarily coincide with the political jurisdictions in the area. Agencies must consider where the substantial number of contractors and subcontractors they typically do business with are located, as well as the areas in which a significant amount of contracting funds are spent. Calculating the base figure forms step one of the goal setting process.

\[
\text{Step One Base Figure} = \frac{\text{Ready, willing, and able DBEs}}{\text{All firms ready, willing, and able (including DBEs and non-DBEs)}} \times 100 \quad -- \text{Equation 1}
\]
The next step in the goal setting process requires agencies to make adjustments to the base figure calculated in step one where necessary based on evidence available. The factors that must be considered for the adjustment include, but are not limited to, the following:

i. Past participation (the volume of work DBEs have performed) in recent years or other measure of demonstrated capacity;
ii. Evidence from disparity studies conducted in the agency’s market area;
iii. Statistical disparities in the ability of DBEs to get financing, bonding and insurance;
iv. Data on employment, self-employment, education and training, union apprenticeship programs; and
v. Any other data that would help better measure the percentage of work that DBEs would be likely to obtain in the absence of discrimination.

As stated previously, agencies are not to make any adjustments if there are no reasons to do so or evidence does not suggest that adjustments are necessary.

2.1.2.4 Good Faith Efforts and Contract Administration Requirements

In situations where a recipient state establishes contract goals, it is expected that the agency will diligently work with bidders to meet these goals. The Good Faith Efforts are the basic methods and techniques that a recipient adopts to ensure that all DBEs are offered a fair opportunity to compete for federally assisted contracting/purchasing procurements. These are accomplished in two ways: bidders can document their efforts in obtaining commitments for enough DBE participation, or document that they have made good faith efforts to meet the contract goals. The following are examples of strategies for conducting good faith efforts:

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. This may include placing DBEs on solicitation lists and soliciting them whenever they are potential sources of work.

2. Make information on forthcoming opportunities available to DBEs and arrange timeframes for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.

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3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. This will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.

5. Use the services and assistance of the Small Business Administration (SBA) and the Minority Business Development Agency of the Department of Commerce.

6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.

2.1.3 Specific DBE Program Functions

Specific DBE program functions include developing and monitoring DBE Program policy and procedures; providing outreach and training to internal and external DBE Program stakeholders; providing technical and programmatic assistance to minority and women-owned businesses; and collecting, compiling, and analyzing data on MBE/WBE utilization under agency programs.

In addition, to ensure the implementation of a successful DBE program, agencies must ensure compliance and prevent fraudulent practices to ensure that only eligible firms benefit from the program. Some evaluation methods used for monitoring compliance include:

1. “Site visits
2. Interviews of personnel on job site
3. Verification of certified payroll
4. Review of company policies
5. Evaluation of “good faith efforts”
6. Verification of Disadvantaged Business Enterprise (DBE)/Small Business Enterprise (SBE) certifications
7. Review of cancelled checks paid to the subcontractors, sub-consultants and suppliers” (CRAA, n.d.).

The DBE program is also susceptible to fraudulent activity. Fraud in the DBE program occurs when there is misrepresentation of individuals or firms who performed contract work in order to increase job profit, as well as to create the impression of meeting contract goals for DBE utilization. Such fraudulent practices may occur in various forms, e.g., false

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8 Columbus Regional Airport Authority (n.d.). Disadvantaged Business Enterprise Program Contract Compliance Monitoring.
eligibility, where a firm provides false information for certification; front companies, where firms falsely represent ownership and control (usually by paying a disadvantaged person to allow his/her name to be used); conduit companies, where a DBE sells its certified status to another company to complete its work; and “bait & switch”, where a prime, after being awarded a contract, never uses the DBE firm(s) listed in its bid documents.

To help prevent these fraudulent activities, the USDOT Office of Inspector General has identified the following “Red Flag” indicators which include, but are not limited to the following:

1. DBE owner lacks background, expertise, or equipment to perform subcontract work
2. Employees shuttle back & forth between prime contractor & minority-owned business payrolls
3. Business names on equipment and vehicles covered with paint or magnetic signs
4. Orders and payment for necessary supplies made by individuals not employed by DBE-owned business
5. Prime contractor facilitated purchase of DBE-owned business
6. DBE owner never present at job site
7. Prime contractor always uses the same DBE
8. Financial agreements between prime and DBE contractors
9. Joint bank account (Prime/DBE)
10. Absence of written contracts

It is the responsibility of the agency to identify and investigate any indications of fraud that could be occurring on any of its projects and take the appropriate steps to remedy and prevent fraud.

2.2 Design Build and other Alternative Delivery Projects

2.2.1 Traditional Project Delivery
The traditional design-bid-build project delivery system involves competitively bid construction contracts that are based on complete and prescriptive contract documents prepared by the owners’ architects and engineers and/or design consultants. Design-bid-build projects by nature are delivered through a sequential approach that starts with planning and scope development, which later forms the final project design, and continues with design development and finalization along with permit acquisition and several other responsibilities. In design-bid-build, the state DOT (i.e., public owner) assigns the responsibility of design and construction to separate parties as shown in Figure 2.2.

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The state DOT and the designer are responsible for the accuracy and the validity of the project design. The procurement of the contractor in this project delivery system is mainly based on the total construction cost. Since most of the required responsibilities in design-bid-build project delivery should happen in sequence, delivery of these projects is associated with a longer overall schedule and possible changes in total project costs, as well as claims and disputes resulting from change orders and design errors and omissions. State DOTs, the FHWA, the federal government, and other stakeholders have recognized that the slow pace of project delivery in design-bid-build leads to increased costs, inefficient resource allocation and risks to overall economic vitality and quality of life.

Conventional approaches to project delivery have thus proven to be insufficient in dealing with the emerging challenges to streamlined project delivery. Since state DOTs have significant backlogs of needed projects but little financial means to advance them to the next stage, innovative project delivery has become an active tool for state DOTs that can mitigate the effects of construction cost increase. Construction costs are escalating at rates higher than those of inflation.

2.2.2 Innovative Project Delivery
In the mid-1800s, many states adopted the “low-bid” requirements to protect tax payers from improper practices by agencies. The “low-bid” requirements on public projects also ensured that public money was invested in the best possible way. In 1938, the Federal-Aid Highway Act set the stage for the interstate highway system and required the use of “competitive bidding process” for construction and major reconstruction projects. The 1968 Federal-Aid Highway Act required that construction contracts be awarded competitively to the contractor that submits the lowest responsive bid. The mandate to award the contracts only on the basis of “lowest responsive bid” was set forth in 23 US Code (USC) 112 of the 1968 Federal-Aid Highway Act. In 1990, the FHWA established the Special Experimental Project Number 14 (SEP-14) – Innovative Contracting. This Act allowed state DOTs to test and evaluate a variety of approved innovative project delivery systems, such as design-build and design-build-finance-operate-maintain. In 1998, the Transportation Equity Act for the 21st Century (TEA-21) became the reauthorized legislation for the nation's surface transportation programs. Included in TEA-21 was Section 1307 (c), which required FHWA to
develop and issue regulations describing agency approval criteria and procedures for innovative project delivery.

Since 1990, a number of transportation agencies (as owners, sponsors, or contracting agencies of highway projects) have been experimenting with a wide range of innovative project delivery systems aimed at lowering costs and time to develop highway construction and rehabilitation projects, while maintaining or improving the quality of delivered projects. Innovative project delivery systems can take several conventional forms such as construction manager/general contractor (CM/GC), design-build, design-build-operate-maintain, design-build-finance, and design-build-finance-operate-maintain.

2.2.3 Public Private Partnerships (P3s)
In recent years, U.S. DOT and state DOTs across the nation have begun to seek private investments to leverage their shrinking financial resources and address their growing funding shortfalls. According to the FHWA, public-private partnerships (P3s) are contractual agreements formed between a public agency and a private sector entity that allow for greater private sector participation in the delivery and financing of transportation projects. In practice, P3 can be realized through many arrangements in alternative project delivery, for example design-build and design-build-finance.

In addition to relieving the funding pressure, P3s also bring additional benefits to DOT projects, as compared to traditional methods. The main types of benefits realized in P3 projects include the following:

- **Value for Money**
  - Optimal risk allocation
  - Improved delivery
- **Private Sector Expertise**
  - Increased competition
  - Broader investor base
  - Increased technologies
  - Management expertise
- **Protected Public Interest**
  - Contract safeguards
  - Economic benefits contractually defined

Despite these benefits, private sector involvement in highway financing across the U.S. is subject to various limitations. State DOTs face different kinds of financial, political, legal,

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management and organizational issues affecting their abilities to attract private investments in highway projects. Such issues, among others, include: (1) the complexities in project financing\textsuperscript{13}, and (2) inefficient legal and organizational frameworks for investment\textsuperscript{14} adversely impacting private investments in highway projects. As shown in Figure 2.3, in 2015 there were 18 states where P3 is unauthorized by laws. About the same number of states are fully authorized to utilize the P3 in DOT projects.

![Figure 2.3 P3 State Legislation for Transportation Projects in 2015 (Source: DBIA 2015)](image)

### 2.2.4 Construction Manager/General Contractor (CM/GC) or Construction Manager at Risk (CMAR)

The construction manager serves as an agent of the Owner. The Owner engages a CM either early in or prior to the design process. In addition to managing the project, the CM provides advice during design, takes bids for construction from multiple prime trade contractors and manages them in the functional role of GC (3D/International, n.d.)\textsuperscript{15}. During this time however, the Owner still holds the contracts and bears all risk related to on-time


and on-budget project delivery. While this method of managing a project is usually successful, the project Owners still encounter issues which include:

- “The administrative burden of managing many contracts for a single project;
- Concern about third party liability in the event one prime trade contractor damages another;
- The lack of a single guaranteed, bonded price for the total project (although the trade contractors are typically bonded)” (3D/International, n.d.).

In addition to these issues, Owners costs also sometimes increase as a result of duplicating the CM’s oversight using representatives of their own, which is a result of the Owners still holding the contracts. This also confuses and weakens the CM’s role in the eyes of the prime trade contractors. Construction manager at risk on the other hand, describes the contractual situation where the construction manager is legally responsible for on-time and on-budget project delivery. The CM at risk enables all construction responsibility to be centralized under a single contract, as well as a guaranteed maximum price for the project, creating a more predictable and manageable project. Figure 2.4 shows that over 20 states either have or are working on legislative authority to use CMAR/CMGC.

![Figure 2.4 State DOTs with Legislative Authority to Use CMAR/CMGC](source: NCHRP Synthesis 481 (2015))

### 2.2.5 Design Build (DB) Project Delivery System

The Design-Build delivery system is one of most prevalent arrangements to realize P3. The “Design-Build Contracting: Final Rule” was published in the Federal Register on December 10, 2002 and became effective on January 9, 2003. According to the Design-Build Institute of America (DBIA), the design-build form of project delivery is a system of contracting
whereby one entity performs both architectural/engineering and construction responsibilities under one single contract as shown in Figure 2.5\textsuperscript{16}.

![Figure 2.5 Design Build Relationship](image)

Under this arrangement, the state DOT assigns the responsibility of both design and construction to one party, namely the design-builder. Portions of the overall design or construction work can be performed by the design-build entity or subcontracted out to other companies that may or may not be part of the design-build team. The advantages of this project delivery method include the following\textsuperscript{17}:

- Provides a single point of responsibility
- Provides long-term accountability
- Offers price savings – predictable cost – lower total cost
- Offers time savings – faster completion/guaranteed on-time delivery
- Ensures less owner management/oversight
- Provides improved quality & innovation.

2.2.6 Statutory Environment for Design Build Project Delivery System

The Design Build Institute of America (DBIA) tracks States that have adopted Design-Build legislation. As Figure 2.6 illustrates, there is a growing trend in the passage of Design-Build legislation for transportation projects across the United States. In 2012, State legislators in New York and Connecticut granted their respective State DOTs legislative approval to use the Design-Build Project Delivery System for transportation infrastructure projects. According to the DBIA, the increase in authorizing legislation over the past few years is a


result of the release of Federal stimulus funds for transportation projects and the need to construct these projects in a timely manner. As of 2012, only three State DOTs (Oklahoma, Nebraska, and Iowa) had not received legislative approval to use Design-Build Project Delivery System for transportation projects.

![Figure 2.6 Design-Build State Laws for Transportation in 2012](source: DBIA (2013))

The situation has, however, worsened over time as shown in Figure 2.7. As of 2015, there were seven states where DB is unauthorized because the prior authorizations expired and were not re-authorized immediately. The special case is New York where the reauthorization of DB was fully suspended. In New York, the extension of the DB legislation was held up in spring 2015 because the renewal would have required that all major design-build projects rely on project labor agreements, which generally results in contractors using union labor. However, upstate developers were concerned about the costs, and therefore the bill stalled.

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18 Design-Build Institute of America (2013). *State Legislation.*
Challenges for DBE Utilization in DB Projects & Best Practices for DB Contractors

2.3.1 Challenges of DBE in DB Projects
This research project focuses on identifying the unique challenges of applying the DBE Program requirements to DB and offering effective strategies to enhance DBE participation in DB. The section below identifies some of the key challenges with effectively utilizing DBE in DB projects found in the literature, including a list of best practices for DB contractors to address such challenges.

In 2013, NCHRP Synthesis 448 (State Department of Transportation Small Business Programs) reported on a study whose objectives were to: (1) gather and synthesize information on existing state DOT transportation-related small business programs, and (2) identify successful strategies that maximize DBE program achievement through race-neutral measures. (The definition of race-neutral from Title 49 Code of Federal Regulations Part 26, 26.5 (Part 26) is as follows: [A] race-neutral measure or program is one that is, or can be, used to assist all small businesses). A survey was administered to the 50 states and Washington, D.C., Puerto Rico and the U.S. Virgin Islands and a total of 44 states and territories (out of 53) responded to the survey (response rate of 83%). State DOT responses cited administrative challenges as the major challenges within their DBE programs:
specifically, budget constraints and lack of staff. Several states noted that they were under pressure to provide adequate support for the DBE program because of inadequate budget and insufficient staff. The report notes that most states have a DBE program that includes an overall annual race-conscious goal and project-specific DBE goals. In 2008, the TRB-DBE National DBE Program Manager Survey was conducted by the Center for Survey Research at Pennsylvania State University, to identify the latest issues and concerns of the DBE program nationally and to use the results to stimulate directed research on the problems facing DBEs in general and the DBE Program more specifically. While the survey was not specific to DB projects, the results shed light on some of the most important problems facing state DBE programs. The survey also addresses race-conscious and race-neutral goals for FHWA, FAA and FTA; race-neutral activities in state DBE programs; and innovations in state DBE programs. Twenty-seven states and the District of Columbia responded (out of 52), yielding a response rate of 54%. Several issues facing DBE programs were identified including the following: DBEs' ability to obtain bonding, access to capital, cash flow, reluctance of prime contractors to use new subs, newer DBE firms without experience and older DBE firms leaving the DBE program, and building DBE capacity. Among the issues raised, goal setting issues were highlighted for DB: it was noted that DBE goals are being met entirely through construction, but the DB contract covers more phases than construction.

One of the few researchers working in the area of setting better DBE goals on DB projects, Keen, has identified several DBE challenges for DB and other alternative project delivery such as such as Construction manager-at-risk (CMAR) and construction manager/general contractor (CMGC).

The DBE challenges include the following:

- The difficulty of setting the contract goal with limited information
- With the other complexities of a DB project, DBE program compliance can be a low priority for the prime contractor

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- There can be long lead times between the proposal date and when the subs are actually used in the construction phase
- DBs are often megaprojects, with resulting challenges
- Any new process can create confusion among proposers and potential subs
- Engineering-related DBEs say they are left out of the process
- Local agency projects.

Keen indicates that it is difficult to set goals with specificity in practice. The rule as listed in Title 49 Code of Federal Regulations (Part 26) requires the proposer to “narrowly tailor the project goal based on statistical data concerning DBE firms’ relative availability in the relevant markets”. For DB projects, the contract is awarded before the design is completed. This makes it difficult to set and meet a specific DBE goal.

In addition to a limited amount of academic references, some industry reports offer a much different perspective of the DBE challenges in DB. For example, the Seattle Tunnel project is one of the biggest DOT projects in Washington State in recent years. The contract for the main part of this project (SR 99 Tunnel) is a DB agreement. Through the continuous monitoring of the project, some issues of the DBE Program in a DB environment have been recognized and reflected in a monthly report. The primary issues of concern communicated thus far by DBE firms are receipt of prompt payment, which suggests the economic vulnerability of DBE firms. Another identified challenge is how to meet the requirements of the Project Labor Agreement (PLA) and ensure that PLA does not impede access to the project.

2.3.2 Suggested Best Practices for DB Contractors Implementing the DBE Program
A list of best practices has been suggested for DB contractors to better implement the DBE Program, by Armand Resource Group, Inc. (ARG). ARG is considered an industry leader in the design and implementation of diversity compliance programs. Most of the suggestions listed below are from the DBE-related provisions in course materials from the ARG Group:

1. Provide comprehensive support to DBEs
This suggestion highlights different kinds of supportive measures that help make DBEs better qualified for their jobs: educate DBEs at both the community and individual levels. Through this process, the contractor will come to know DBEs’ pitfalls and have access to their feedback; encourage DBE participation in all industry presentations; and offer supportive services and technical assistance to DBEs.

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2. Promote the participation of DBEs in the project
Encourage the active participation of DBEs at all project phases. Encourage earlier involvement in the project from the concept stage. At the same time, contractors should take the initiative to conduct outreach to the DBE community.

3. Define the specific rules
Clearly define expectations on meetings, reports, plan modifications, pre-approvals. Define how to handle “graduated” DBE firms who improve themselves through effort.

4. Use improved management methods
It is suggested that contractors better fit the DBEs into the organization by increasing communication/project awareness, and defining relationships with contractor based on trust. Furthermore, needs assessment could also help contractors to better cooperate with DBEs.

5. Optimize rules and regulations
Most of the federal and state rules are originally designed for traditional projects. It is recommended that DBE specifications & contract requirements are modified to better fit with the alternative project delivery environment, such as 49 CFR Part 26.53 (e), which considers goal setting for DB and “turnkey” contracts.

2.4 NCHRP Synthesis 481
Published in 2015, NCHRP Synthesis 481- Current Practices to Set and Monitor DBE Goals on Design-Build Projects and Other Alternative Project Delivery Methods, reviews and synthesizes current practices and challenges state DOTs face in setting and monitoring DBE goals on alternative delivery projects such as design-build and P3s. The authors synthesized information obtained from a literature review, review of relevant agency documents and interviews with 47 of the 52 state DOTs. Telephone interviews were also conducted with some contractors, contractors’ associations, FHWA staff, DBEs and others.

The report discusses the challenges DOTs face when using traditional methods (i.e., methods used for design-bid-build projects) for DBE contracting goals. The report also reviews new methods some DOTs have created in response to these challenges. Per the report, the standard application of the Federal DBE rules to traditional design-bid-build projects starts with the state DOT setting a goal for DBE participation, usually expressed as a percentage of total costs. Bidders on the project are required to meet the DBE goal or show good faith efforts to do so. If the bidder does not meet the goal nor demonstrate good faith efforts, federal regulation requires its bid to be rejected. Bidders usually provide the state DOT with supporting information, including a list of dollar commitments to specific DBEs. After the contract award, the state DOT monitors whether those DBEs actually receive the committed work. This approach is summarized as a seven-stage process as follows:

1. Identifying the project as appropriate for DBE contract goals
2. Incorporating DBE program language in RFQs, RFPs, and contract documents
3. Communicating opportunities to DBEs and other small businesses
4. Establishing a DBE goal for the project
5. Reviewing DBE proposal submissions when determining the award
6. Monitoring compliance
7. Remedying any noncompliance

According to the report, representatives of many state DOTs, contractors, DBEs and FHWA report substantial difficulties in applying traditional DBE contract goal approaches for alternative delivery projects. They indicate that new methods that focus on a DBE plan at the time of the proposal, rather than commitments to specific DBEs, can achieve more of the objectives of the Federal DBE Program. The report indicates that many state DOTs have responded to existing challenges by creating new methods for applying DBE contract goals to DB and other alternative delivery projects. The new methods require expanded monitoring efforts to ensure that contractors effectively implement DBE plans.

The key differences identified between the traditional approach and the newer approaches are found in stages 2, 3, 5 and 6 of the seven-stage process outlined above. In stage 2, when incorporating program language into RFQ, RFP and contract documents, there is a need to create custom language for the innovative delivery approaches; in stage 3, when communicating opportunities to DBEs and other small businesses, there is a need for an extended length of outreach; in stage 5, when reviewing DBE proposal submissions to determine the award, proposers indicate whether they can meet the goal or show good faith efforts through a DBE plan – however, no DBE commitments are required and the plan can either be scored or reviewed on a pass-fail basis. Finally, in stage 6, when monitoring compliance, the state DOT receives DBE commitments, reviews good faith efforts, and refines/monitors the DBE plan. DBE commitments are allowed in the construction phase and can be evaluated based on plan execution.
3 Survey Results

3.1 Survey Overview

A survey was developed to obtain information on the implementation of DBE practices in alternative delivery methods, primarily design-build (DB) and public-private partnerships (P3) in DOTs. The survey, consisting of 24 questions about the DBE program, program goals, reporting and monitoring was sent to each DOT representative. These constituted 166 representatives in different offices and departments that were related to DBE or Civil Rights, business engagement, construction management and alternative delivery in 52 DOTs. Of 166 DOT representatives contacted, 38 responded to the survey, resulting in an approximate response rate of 23%. However, the 38 responses received represent 26 different DOTs. Eighteen of the 38 respondents worked within an organizational unit related to Civil Rights or DBE in particular, 6 worked in units related to construction; two of these respondents were in both units. Figure 3.1 shows the other units represented which include design, engineering, alternative delivery, contracting, and administration.

Several of the DOTs responded that they did not use DB or P3 project delivery methods. Nebraska, South Dakota, Wisconsin and Wyoming replied to the survey that they did not use DB and/or P3 project delivery methods. Those that used DB can be found in Table 3.1.
Table 3.1  DOTs That Use the Design-Build Project Delivery Method and/or P3

<table>
<thead>
<tr>
<th>DOTs</th>
<th>Number of Representatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>California Department of Transportation</td>
<td>2</td>
</tr>
<tr>
<td>Colorado Department of Transportation</td>
<td>1</td>
</tr>
<tr>
<td>Delaware Department of Transportation</td>
<td>1</td>
</tr>
<tr>
<td>Florida Department of Transportation</td>
<td>2</td>
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<tr>
<td>Georgia Department of Transportation</td>
<td>2</td>
</tr>
<tr>
<td>Idaho Transportation Department</td>
<td>1</td>
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<tr>
<td>Kansas Department of Transportation</td>
<td>1</td>
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<tr>
<td>Massachusetts Department of Transportation</td>
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<tr>
<td>Michigan Department of Transportation</td>
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<td>Minnesota Department of Transportation</td>
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<tr>
<td>Missouri Department of Transportation</td>
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</tr>
<tr>
<td>Montana Department of Transportation</td>
<td>2</td>
</tr>
<tr>
<td>New Mexico Department of Transportation</td>
<td>2</td>
</tr>
<tr>
<td>New York State Department of Transportation</td>
<td>2</td>
</tr>
<tr>
<td>Ohio Department of Transportation</td>
<td>1</td>
</tr>
<tr>
<td>Oregon Department of Transportation</td>
<td>1</td>
</tr>
<tr>
<td>Puerto Rico Highway and Transportation Authority</td>
<td>2</td>
</tr>
<tr>
<td>South Carolina Department of Transportation</td>
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<tr>
<td>Texas Department of Transportation</td>
<td>2</td>
</tr>
<tr>
<td>Utah Department of Transportation</td>
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<tr>
<td>Vermont Agency of Transportation</td>
<td>1</td>
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<tr>
<td>Virginia Department of Transportation</td>
<td>4</td>
</tr>
</tbody>
</table>

Of the DOTs with DB and/or P3, nine (41%) identified at least one office or division specifically for utilization of DBEs in DB and P3 projects. These offices ranged from offices/divisions/bureaus of civil rights to business and economic opportunity offices, construction divisions, and groups specializing in DB or alternative contract delivery methods (see Table 3.2). The 13 (51%) other DOTs who use DB and/or P3 replied that there was no such office in their DOT.

3.2 Goals and Guidance
The survey posed questions about the goals for the DOT’s DBE program with regard to DB and P3 projects. A total of 8 (36%) out of 22 DOTs responded that they had a specific set of goals for the utilization of DBE in DB or P3 projects. A specific example is Florida who has a 10% DBE goal and 3% small business goal for DB and P3 projects; however, Florida is also a race-neutral program and does not set contract goals. The other agencies that set DBE goals for their DB or P3 projects include Virginia, Ohio, Texas, New York, Missouri, Delaware and Georgia.
Table 3.2  Office/Division Responsible for the Utilization of DBEs in Design-Build or P3 Projects

<table>
<thead>
<tr>
<th>Office Name</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil Rights Division</td>
<td>Virginia Department of Transportation</td>
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<tr>
<td>Office of Civil Rights</td>
<td>Minnesota Department of Transportation</td>
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<tr>
<td>NYS Department of Transportation</td>
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<td>Oregon Department of Transportation</td>
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<td>Vermont Agency of Transportation</td>
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<td>Civil Rights Bureau</td>
<td>Montana Department of Transportation</td>
</tr>
<tr>
<td>Equal Economic Opportunity (EEO) Office</td>
<td>Georgia Department of Transportation</td>
</tr>
<tr>
<td>Office of Business and Economic Opportunity</td>
<td>California Department of Transportation</td>
</tr>
<tr>
<td>Strategic Project Division and/or the Construction Division</td>
<td>Texas Department of Transportation</td>
</tr>
<tr>
<td>Office of Project Letting</td>
<td>Oregon Department of Transportation</td>
</tr>
<tr>
<td>Alternative Contract Delivery</td>
<td>California Department of Transportation</td>
</tr>
<tr>
<td>Design-Build Group</td>
<td>NYS Department of Transportation</td>
</tr>
</tbody>
</table>

Fourteen DOTs (64%) answered that their agencies had specific criteria to address DBE utilization in DB/P3 RFQs or RFPs. Similarly, 16 DOTs (73%) responded that they had specific language in RFQ/RFPs contracts to address DBE utilization in DB or P3. Six DOTs (27%) responded that they had specific guidelines or a manual for DBE in DB or P3. A summary of the responses to questions from this section are shown in Table 3.3. Blanks represent agencies that either did not answer or answered the questions in the negative.

3.3 Program Strategies Being Implemented

Additionally, questions on strategies for public participation, avoiding over-concentration of DBEs, building capacity and supportive services provide insights into successful approaches for DBE utilization in DB and P3. Four DOTs directly mentioned public participation involvement for setting tri-annual program goals. New York State DOT mentioned that some projects also use public participation with efforts to secure commitments and achieve goals. DOTs listed outreach sessions, roundtable meetings early in the process, reporting to the local small business council, and customizing best value RFPs (for DB & P3 to drive broader DBE usage) as strategies to involve public participation in setting DBE goals.

To avoid overconcentration, DOTs explained that they encourage professional service firms where underutilized, obtain certifications from multiple types of companies and evaluate the existing market conditions. Three DOTs - Utah, Vermont, and Wyoming - noted that this was not a problem for them.

Seven DOTs (32%) responded that they had an office or program that provided resources to build capacity of DBEs to effectively participate in DB and P3 projects. Some resources provided include educational sessions, outreach activities at industry events, direct communication with senior managers and project managers, mentor protégé programs, small business training, list serves and networking events.
## Table 3.3 Summary of Survey Responses on Goals and Guidance

<table>
<thead>
<tr>
<th>State Agencies</th>
<th>Defined a set DBE goals for DB/P3</th>
<th>Defined specific criteria to address DBE in DB/P3</th>
<th>Defined specific language in RFQ/RFPs to address DBE utilization</th>
<th>Defined specific guidelines or manual for DBE in DB/P3</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Colorado</td>
<td>✓</td>
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<td>Delaware</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>Ohio</td>
<td>✓</td>
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<td>Oregon</td>
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<td>Puerto Rico</td>
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<tr>
<td>South Carolina</td>
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<tr>
<td>Texas</td>
<td>✓</td>
<td></td>
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<tr>
<td>Utah</td>
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<tr>
<td>Vermont</td>
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</tr>
<tr>
<td>Virginia</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>14</td>
<td>16</td>
<td>6</td>
</tr>
</tbody>
</table>
Florida listed three supportive service contracts: one that has classroom training, one with business development for DBE and one to help prime contractors find DBEs. Fourteen DOTs (64%) answered that they had at least one supportive service to assist DBEs including resources similar to those mentioned for capacity building as well as advanced business counseling, bonding and financial packages, and one-on-one coaching. However, Wyoming noted that its supportive services program is not funded through FHWA. Instead, it works with the Small Business Administration (SBA) and the Procurement Technical Assistance Center (PTAC) to provide training to its DBE firms.

3.4 Monitoring and Reporting
When asked about the effectiveness of monitoring and oversight mechanisms, 8 DOTs (36%) responded that mechanisms in the construction phase were effective. These mechanisms include reviewing goals quarterly and monitoring by district personnel with oversight by the central officer of civil rights. There were fewer affirmative responses for mechanisms in the other phases and no specific examples were provided. Twelve DOTs (55%) provided information on how monitoring and oversight strategies might be improved. These agencies suggested the following:

i. Ensuring monitoring and oversight by requiring project personnel to be more involved
ii. Establishing oversight for consultants
iii. Including more immediate financial impacts to the P3 teams for fast response to owner concerns
iv. Creating a uniform and standard process and/or strategy for monitoring and oversight of DBE goals
v. Developing an automated system to centralize filing of contract administrative documents and data collection
vi. Increasing communication between engineering staff and DBE program staff
vii. Conducting continuous education and training of agency staff (DBE and non-DBE) and contractors about the DBE program
viii. Creating industry and stakeholder buy-in of the DBE program
ix. Making DBE a scored criterion and introducing penalties for not meeting requirements

3.5 Challenges for Setting DBE Contract Goals
Setting DBE contract goals for DB/P3 was seen to be challenging. According to respondents, the biggest challenge for setting project goals is having an incomplete project design, which causes the uncertainty of the evaluation of quantities and work items. In addition, the unavailability of DBEs, providing pre-award and other diverse work opportunities to DBEs, framing the RFP language to align with goals and communicating DBE program expectations to contractors were also identified as challenges for setting contract goals.
Monitoring DBE goals presents a challenge as well. One respondent stated that the nature of DB/P3 projects makes ensuring compliance difficult, i.e., the DOTs do not direct the initial monetary outflow, and thus, the agency cannot penalize a contractor by withholding funds if DBEs are not properly utilized during the project. Again, changes in work can be detrimental to achieving the goal that was established. DB projects are usually on a larger scale with more types of work and a longer project duration, which makes it difficult to distribute dollars over multiple years and keep the availability of DBEs constant. In addition to these, respondents also stated the following challenges:

1. Building relationships between firms and DBEs
2. Educating firms and contractors about the DBE program
3. Improving the availability of DBEs
4. Increasing the diversity of opportunities

3.6 General DBE Program Implementation

When respondents were asked about whether or not any incentives are provided for primes that involve DBEs during procurement, four DOTs (Minnesota, Montana, New Mexico and Utah) answered in the negative. For the DOTs that responded affirmatively to providing incentives, many referred to the project award as a major incentive. Some DOTs also in evaluating proposal submissions, may either make DBE be a scored criterion or require a DBE performance plan to be submitted as part of the proposal. For example, Florida DOT has annual “DBE Letter Grades” to improve accountability and also allots bonus points on past performance. There may also be disincentives levied by DOTs such as penalties for improper behavior.

The survey asked what types of work or services work well or do not work well with the implementation of DBE. Many responses provided general program recommendations. Among specific services that work well were community outreach in the Concept Stage and geotechnical and survey in the RFQ/RFP stage. Some DOTs remarked that there were limited opportunities in these stages, and that they were not considered, or that DOT staff work in these capacities. In the post-award stage (design and construction), types of work or services that work well with DBE implementation include traffic control, electrical supplies, trucking, lighting, fencing, reinforcement steel, concrete flat work, grassing, guardrail, design services, construction inspection services, and flagging. Some DOTs commented that the types of work are also often left to the discretion of the design-builder.

When survey respondents were asked about areas in which their respective DOTs planned to improve DBE utilization in the DB/P3 project, the main areas that surfaced were diversification of DBE work throughout the project, accountability and transparency, community outreach, effectiveness of goals, and networking support.
3.7 Project Stages and DBE Utilization

DOTs were asked about when in the project development process they considered DBE issues. From the responses shown in Figure 3.2, 14 DOTs (64%) said in procurement. The next highest responses were construction (nine agencies, 41%), and preliminary design and environmental studies (also nine DOTs, 41%). The areas where goals are set, applied, promoted, and assessed also correspond to these areas as seen in Figure 3.3. For this question, 13 DOTs answered construction, 11 procurement and 7 preliminary design.

![Figure 3.2 Stages in Project Development in Which Agencies Consider DBE Issues](image1)

![Figure 3.3 Areas Where DBE Participation Goals are Set, Applied, Promoted and Assessed](image2)
Construction, procurement and preliminary design resurfaced in the answers to questions concerning the use of specific mechanisms (such as contract goals or written performance plans) used to achieve DBE goals. Thirteen DOTs (all respondents who answered this question) answered that they had contract goals for construction, 6 for procurement and 3 for preliminary design. There were also 7 responding DOTs that stated they had contract goals for final design. There were fewer that had written performance plans with specific monitoring or oversight mechanisms, but 8 had such plans related to construction, 3 for procurement and final design, and 1 for preliminary design and environmental studies and visioning and policy. The corresponding agencies that answered these set of questions are shown in Table 3.4 and Table 3.5.

Table 3.4  Agencies’ Use of Specific DBE goals within contract

<table>
<thead>
<tr>
<th>States that Set Specific DBE Goals Within Contract</th>
<th>Visioning &amp; Policy</th>
<th>Preliminary Design &amp; Environmental Studies</th>
<th>Procurement</th>
<th>Final Design</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Colorado</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Delaware</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Florida</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Georgia</td>
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<td>✓</td>
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<tr>
<td>Minnesota</td>
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<td>✓</td>
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</tr>
<tr>
<td>Montana</td>
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<tr>
<td>New Mexico</td>
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<td>✓</td>
<td>✓</td>
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<tr>
<td>New York</td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>Ohio</td>
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<td>Oregon</td>
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<td>Puerto Rico</td>
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<tr>
<td>South Carolina</td>
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<td>Utah</td>
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<td>✓</td>
<td>✓</td>
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<tr>
<td>Virginia</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>13</td>
</tr>
</tbody>
</table>
### 3.8 Challenges and Recommendations

DOTs highlighted some challenges in the effective utilization of DBE in DB and P3 in comparison to design-bid-build (DBB). In the typical process of design-bid-build, DBE goals are met pre-award. However, due to the nature of DBs and P3s, the same requirements may not be entirely feasible. The challenges highlighted by respondents were mostly similar, relating generally to project timelines, incomplete designs at time of contract, DB/P3 program size and actually meeting the DBE goal. Pre-construction work and procurement were also identified as areas in DB projects where DBE utilization is often challenging.

It is important to realize that during the early stages of alternative delivery projects, designs are not completed making it difficult to determine the specific participation and subcontractors to be used. Quantities for construction are also typically unknown and a work change during the course of the project can hinder the achievement of project goals.

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**Table 3.5 Agencies that Use Written Performance Plans to Achieve DBE Goals**

<table>
<thead>
<tr>
<th>States with Written Performance Plans (with Specific Monitoring &amp; Oversight Mechanisms) to Achieve DBE Goals</th>
<th>Visioning &amp; Policy</th>
<th>Preliminary Design &amp; Environmental Studies</th>
<th>Procurement</th>
<th>Final Design</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Colorado</td>
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<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>Delaware</td>
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<td>✓</td>
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<tr>
<td>Florida</td>
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<td>✓</td>
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<td>Georgia</td>
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<td>✓</td>
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<tr>
<td>New Mexico</td>
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<td>✓</td>
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<tr>
<td>New York</td>
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<td>✓</td>
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<tr>
<td>Ohio</td>
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<td></td>
<td></td>
<td>✓</td>
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<td>Oregon</td>
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<td>Utah</td>
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<td>✓</td>
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<tr>
<td>Virginia</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1</strong></td>
<td><strong>1</strong></td>
<td><strong>3</strong></td>
<td><strong>3</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>
Equally, according to some respondents, the “best” time to inquire about DBE participation on a project is unclear. For this reason, Delaware DOT (DelDOT) accepts letters of commitments signed by the prime and DBE firms, with a request that once quantities are known and prior to breaking ground, the agency will receive the signed subcontract agreements. According to the DelDOT respondent, it has not yet had any issues with this approach to DBE utilization in DB projects. Likewise, Colorado DOT has found that allowing primes to select DBEs at points later than at the outset of the project is more effective.

3.9 Summary
In summary, some agencies are generally interested in providing more opportunities for DBEs in their jurisdictions and are therefore actively seeking ways of improving DBE utilization in alternative delivery projects. Of the 26 agencies that responded to the survey, only four do not use the DB or P3 project delivery method. Of those that do, DBE considerations in DB and P3 are overseen and coordinated by an organizational unit related to civil rights, equal economic opportunity (EEO), construction, engineering, or alternative project delivery. Approximately a third of the DOTs that responded to the survey set specific DBE goals in DB/P3 projects and also, 18 (81%) of the responding DOTs have language in their RFPs/RFQs that specifically address DBE utilization. However, out of the total number of responding agencies, only 6 agencies stated that they had guidelines or a manual for DBE utilization in DB and/or P3 projects.

Agencies also face a number of challenges with regard to setting DBE contract goals which are mostly for the construction, design and procurement stages of the project. These challenges include, among others, the unavailability of DBEs, framing RFP language to align with goals and communicating DBE program expectations to contractors. Despite these challenges, most agencies still work towards achieving their set goals by ensuring compliance through the use of quarterly reviews and oversight by district personnel. Some respondents also recommended that in order to improve monitoring and oversight of DBE utilization in alternative delivery projects, agencies must implement certain strategies. Among these recommendations were the following: (1) create a uniform and standard process and/or strategy for monitoring and oversight of DBE goals; (2) develop an automated system to centralize filing of administrative contract documents and data collection; and (3) increase communication between engineering staff and DBE program staff. Lastly, dealing with incomplete project designs, which is typical of DB and P3 projects, surfaced as one of the most significant challenges agencies face with ensuring proper DBE utilization. As a result, some agencies allow contractors to submit DBE commitments during the course of the project, rather than at the outset.

By probing further into the challenges and recommendations offered by these agency representatives, creative and more effective ways of implementing a successful DBE program and achieving DBE goals in alternative delivery projects may be found.
The survey findings generally align with the results of NCHRP Synthesis 481 showing a range of new approaches emerging to address challenges with using the traditional approach for design-bid-build to incorporate DBE goals in DB and other alternative delivery projects.
4 Case Studies

This chapter provides a detailed examination of DBE utilization in alternative delivery projects for six of the transportation agencies that responded to the survey: Oregon, Virginia, California, Colorado, Minnesota and Utah. Detailed answers and comments to the survey questions are provided along with relevant information obtained through interviews, a literature review and online research.

4.1 Oregon DOT (ODOT)
Goal Setting Methodology

The Oregon DOT coordinates and oversees the utilization of DBE in design-build projects through both the Office of Project Letting and Office of Civil Rights. The agency’s approved overall goal for Federal Fiscal Year (FFY) 2015-2016 is 13.1%, of which 5.2% will be attained through race-conscious and gender-conscious means and 7.9% will be attained through race-neutral and gender-neutral means. In addition, the agency’s three-year DBE goal\(^\text{25}\) for FFY 2014-2016 is 12.29% with the breakdown shown in Table 4.1. These goals are achieved by setting contract-specific DBE goals for all federally funded projects including DB and P3 projects.

Table 4.1 Oregon DOT FFY 2014-2016 DBE goals

<table>
<thead>
<tr>
<th>Overall DBE Goal for FFY 2014-2016</th>
<th>12.29%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race- &amp; gender-neutral portion (RN)</td>
<td>9.61%</td>
</tr>
<tr>
<td>Race- &amp; gender-conscious portion (RC)</td>
<td>2.68%</td>
</tr>
</tbody>
</table>

This goal is set based on demonstrable evidence of availability of ready, willing and able DBEs to participate in ODOT's USDOT-assisted projects. Thus, calculations for setting the goal were based on data included in the 2013 Availability Update Report\(^\text{26}\), the update to ODOT's 2011 Disparity Study Update Report\(^\text{27}\). In the 2013 report, availability is weighted by prime- and sub-contractor levels of participation, as well as business category (i.e., construction, architecture and engineering and related services (A&E)) for both already certified DBEs and potential DBEs. The Step-1 base figure is then calculated. At this point, the potential DBE availability is averaged with the actual certified DBE availability to obtain


\(^{26}\) Available at:

\(^{27}\) Available at:
the weighted averaged DBE availability (see example in Table 4.2). The Step-1 base figure is then adjusted by averaging it with the median DBE participation over the last five years (which is 10.4%) for the Step-2 adjustment. This final number [from the example: (14.17% + 10.4%)/2 = 12.29%] is what is taken as the overall DBE goal. Likewise, the RN portion of the goal is determined by the median race-neutral and gender-neutral participation from the last five years which is 9.61%. This number is subsequently subtracted from the overall goal of 12.29% to produce the RC portion of 2.68%.

Table 4.2  Averaged Total DBE Availability- Actual and Potential DBE

<table>
<thead>
<tr>
<th>Business Category</th>
<th>Actual DBE Availability (prime &amp; sub)</th>
<th>Potential DBE Availability (prime &amp; sub)</th>
<th>Averaged DBE Availability</th>
<th>Weight (% spent in Category)</th>
<th>Weighted Averaged DBE Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>11.05%</td>
<td>+</td>
<td>14.22%</td>
<td>/ 2 = 12.66%</td>
<td>x 80.3% = 10.17%</td>
</tr>
<tr>
<td>A&amp;E</td>
<td>14.63%</td>
<td>+</td>
<td>25.97%</td>
<td>/ 2 = 20.30%</td>
<td>x 19.7% = 4.00%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>15.68%</strong></td>
<td><strong>+</strong></td>
<td><strong>26.29%</strong></td>
<td><strong>/ 2 = 19.64%</strong></td>
<td><strong>x</strong> 80.3% <strong>= 14.00%</strong></td>
</tr>
</tbody>
</table>


The agency also sets sub goals on a selected number of construction and A&E contracts to meet race-conscious and gender-conscious goals for certain DBE groups that were identified as underutilized in the 2011 Disparity Study Update. This is in accordance with the USDOT-approved 2013-2015 DBE Program Waiver28 which permits the following29:

**Construction Contracting**- Race-conscious contract goals should apply to:

- (Black) African American-owned DBE firms, and
- Subcontinent Asian American-owned DBE firms

**A&E Contracting** – Race- and gender-conscious contract goals should apply to:

- (Black) African American-owned DBE firms,
- Subcontinent Asian American-owned DBE firms,
- Native American-owned DBE firms,
- Hispanic American-owned DBE firms, and
- Non-minority women-owned DBE firms

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Case Studies

Program Implementation

During the stages of long-range planning and programming, right-of-way acquisition, and construction, DBE participation is promoted and assessed. However, specific DBE contract goals usually only pertain to the final design and construction portion of the project (i.e., the design and construction portions are each assigned a DBE participation goal as a percentage of the contract amount). The agency also has specific criteria to address DBE utilization in their DB/P3 contract documents. For instance, the base DB draft RFQ has a section for DBE involvement which itemizes the DBE requirements to be submitted (i.e., DB Agreement boilerplate section language). These requirements include the submission of information on the Proposed Civil Rights Manager (qualifications such as education, years of experience, and responsibilities are also listed), a Diversity Plan Outline and a Record of Past Diversity Performance in Workforce & Small Business Utilization form. Information submitted in the latter form must reflect the diversity in the proposer’s contracts in excess of $10 million for the past three years. It should also be noted that even though the submitted diversity plan outline is not a score criterion in the RFQ, it is part of the pass-fail responsiveness criteria (i.e., any proposer not submitting a plan would be considered non-responsive). Lastly, guidelines for DBE utilization are provided for all proposers in the Design-Build Agreement under DB Section 171 (Workforce Protection - DBE Program Provisions). A sample of the Workforce Diversity Participation form is included in Appendix C of this report.

Program Challenges

Similar to other agencies, ODOT encounters certain challenges in setting and meeting these DBE goals. Some of the agency’s unique challenges include proposer/contractor buy-in to the DBE program goals and purposes, as well as ensuring continuous monitoring and oversight for large DB projects with multiple contracting tiers. In addition, due to bid responsiveness, not all DBE commitments and awards are made during the prime bidding phase of the solicitation and award process. This results in the agency having to rely on the awarded contractor to either fulfill promises made during proposal phase or ensure that the awarded contractor’s sub-contractors actually award lower-tier sub-contracts to DBEs.

DBE Resources, Monitoring and Oversight

The ODOT Office of Civil Rights has program managers and field staff who participate in the delivery of small business programs, e.g., small business training events and annual ad hoc networking and outreach events. For DB projects, the agency staff also host pre-project meetings for prime-sub networking. Furthermore, ODOT partners with the Oregon Small Business Development Center (SBDC) Network and other public entities to deliver facilitated mentor protégé and training programs such as the Port of Portland Mentor Protégé Program and the University of Washington-Foster School of Business Minority Business Executive Program. The agency also sponsors the Turner School of Construction Management (a multi-week mentoring program offered annually at no cost to minority and
women-owned firms in the architecture, engineering and construction industry) and various other workshops offered by local, DBE, MBE, WBE or small business focused non-profit organizations.

With regard to monitoring and oversight for DBE utilization, the agency hosts monthly meetings with the contractor’s designated DBE representative to review diversity submittals, including prevailing wage rate payrolls/certified statement, DBE issues, and other topics\(^{30}\).

### 4.2 Virginia DOT (VDOT)

#### Goal Setting Methodology

During the process of establishing the triennial DBE overall goals, VDOT utilizes the agency website, newspapers ads, and sends out notices to stakeholders and the public as a way of involving them; however, project goals are set solely by the agency. The agency's DBE goal-setting method follows the general prescribed FHWA two-step process which requires the establishment of a base figure for the relative availability of DBEs, and then determining if an adjustment is necessary based on evidence. However, the Department decided that the methods for establishing the base figure as recommended in the 26.45(c) were not applicable for their unique situation (i.e., use of a bidder’s list, disparity study, another DOT’s figure, or DBE directory and census bureau data). Instead, VDOT determines its base figure using a two-step process. The first part of its process consists of determining the following two parameters\(^{31}\):

i. Prequalification: The ratio of prequalified DBEs compared to all prequalified contractors, and

ii. Work capacity values: The ratio of the total dollar amount of work a firm can take on at any time based on the amount of bonds that can be adequately secured by the firm.

Being prequalified as a contractor means that the contractor is recognized as being ready, willing, and able to perform work on VDOT contracts; the required prequalification criterion in order to do highway work has been in place in the state since the 1960s. The agency considers factors such as financial ability, equipment availability, work experience, and size of organization for each contractor during the prequalification process. In addition, the

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contractor’s status as a prime/sub, or DBE/non-DBE is also considered. Thus, the first part of calculating the Step-1 base figure follows the example in Figure 4.1.

![Table 4.3 VDOT DBE Commitments](image)

The second part of the base figure calculation requires averaging the two percentages calculated previously. Currently, the agency weighs the two figures equally because it has not yet determined an effective way to weight the relative importance of the two measures. Finding the relative importance of both measures is needed in the process because the method (1) fails to recognize the varying financial assets and ability of firms to commit resources to a particular project, (2) ignores the actual workload needs of VDOT, and (3) ignores how much of its total capacity each firm is ready, willing, and able to provide to VDOT. Thus, the final Step-1 base figure from the previous example would be determined as shown in below.

![Figure 4.2 Final Step-1 Base Figure](image)

Subsequently, the Step-2 adjustment is applied by calculating two adjustment factors. The first factor is based on the difference between the average percent of past commitments (shown in Table 4.3) and the base figure previously calculated in Step 1.

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32 Virginia DBE Goal Setting methodology.
33 Ibid
The second adjustment factor is based on the potential increased capacity through specialty means. This comprises certified firms that are used in the program, but do not require prequalification. According to VDOT, there were 302 certified firms that fit this description as of March 2014. Of these 302 firms, approximately 14% were active in the DBE program according to the agency’s historical data. The base number calculation based on these data is as follows:

\[
\text{Adjustment factor 1} = 9.79\% - 9.65\% = 0.14\%
\]

This value increases the Step 1 base figure by 1.62%. Thus, the final adjustment factor is calculated by taking the average of (1) the average percent of past commitments and (2) the increased capacity through specialty means. The final three-year DBE goal is then calculated as shown below in Figure 4.4.

\[
\text{Base Figure} + \text{Adjustment Factor} = 9.79\% + \left[\frac{(0.14 + 1.62)\%}{2} = 0.88\%\right] = \text{FY 2015-2017 GOAL} = 10.67\%
\]

For the race-neutral (RN) and race-conscious (RC) percent breakouts for the fiscal year (FY) 2015-2017 goal, actual RN commitments for FY 2007 through to March 2014 were averaged (resulting in 4.82%), and this value subtracted from the overall goal to determine the RC portion of the goal, 5.85%.

**Program Implementation**

Virginia DOT promotes DBE participation at various points during the project development process. These include preliminary design and environmental studies, procurement, right-of-way acquisition, utilities relocation and construction phases. However, the agency sets one DBE project goal with the expectation that there will be DBE participation on both the
design & construction of the project. The DBE goals are specified during either the procurement process or in the comprehensive agreement, depending on how the project is being developed, i.e., whether or not it is a solicited or unsolicited project. These goals, along with other specific criteria to address DBE utilization in DB/P3 projects are specified in project documents such as RFPs and RFQs. In addition, special DBE provisions are provided to further inform the design-builder on how DBE firms are to be utilized on the project. These guidelines cover good faith efforts, documentation and administrative requirements, criteria for gaining DBE participation contract goal credit, and other miscellaneous DBE program requirements. The following paragraphs are excerpts from the agency’s Special DBE provisions under the DBE Program Compliance Procedures -- Good Faith Efforts Specified section.

“**Design Phase:** Thirty (30) days after the Notice to Proceed for Design, the Design-Builder shall submit to Department for review and approval Forms C-111 and C-112 for each DBE firm to be utilized during the design phase to meet the DBE minimum requirement and Form C-48. Failure to submit the required documentation within the specified timeframe shall be cause to deny credit for any work performed by a DBE firm and delay approval of the Design-Builder’s monthly payment.

**Construction Phase:** No later than thirty (30) days prior to the DBE firm undertaking any work, Design-Builder shall submit to Department for review and approval Forms C-111, C-112, and C-48. Failure to submit the required documentation within the specified timeframe shall result in disallowed credit of any work performed prior to approval of Forms C-111 and C-112 and delay approval of monthly payment.”

In evaluating proposals, however, VDOT uses a pass-fail criterion for proposer compliance to DBE requirements and does not require the submission of a DBE plan at the RFP stage. Lastly, with regard to over-concentration, the agency has not concentrated on specific strategies; rather, it encourages DBE firms to team up and pursue work areas that may have a lack of firms.

**Resources, Monitoring & Oversight**

The Virginia DOT provides supportive services to DBE firms through its in-house Business Opportunity and Workforce Development (BOWD). The agency also relies on assistance from other subject matter expert partners depending on what the need is. Secondly, the agency ensures DBE compliance by making sure the design-builder is committed to the DBE program by meeting the DBE goal, passing the goal down to first tier subcontractors and

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36 NCHRP Synthesis 481 (2015).
complying with DBE program regulations. This is achieved through a number of monitoring and oversight strategies. One such strategy is the review of procurement documents to ensure that all necessary DBE requirements are included. The design-builder, depending on the size of the project, must also have one dedicated team member or more assigned to resolving DBE subcontractor issues and concerns, as well as ensuring that the DBE goal for the project is successfully met. Again, the District Civil Rights Office (DCRO) monitors good faith effort documentation on a quarterly basis to determine whether or not progress is being made towards meeting the minimum DBE requirements established for the contract.

4.3 California DOT (Caltrans)
Goal Setting Methodology

Caltrans oversees DBE utilization in DB/P3 projects through the Office of Business and Economic Opportunity. The agency sets specific goals for DBE utilization in DB & P3 projects on a project by project basis; however, separate design and construction goals are set for P3 projects and any goals set for DB projects may be adjusted before the contract award. Also, another new goal setting method for P3s with operational phases is to set goals based on the different project phases which is what Caltrans is doing for its Presidio Parkway P3 project in San Francisco37.

Recently, the agency’s overall DBE goal of 12.5% for FFY 2016-2018 was approved by FHWA. This goal is to be achieved through both race-conscious (9.5%) and race-neutral (3%) means. For setting this goal, Caltrans used data from its 2012 Availability and Disparity Study38 to derive the base figure. This study used an approved approach similar to that of the Illinois and Minnesota DOTs to estimate the relative availability of DBEs. This value was then weighted by the type of work, contractor role (prime or subcontractor), location of work, size of work element, contract date and whether a contract is a Caltrans or local agency contract.

The second part of the process, Step-2 adjustment, was carried out by looking at the types of information described in the DBE regulations with respect to the Step-2 analysis. The first piece, determining current DBE capacity as a function of past volume of work performed, was deemed as an inadequate approach to measuring actual DBE capacity because only a small percentage of DBEs are awarded contracts. Thus, according to the agency, DBE capacity is greater than that reflected in the volume of work performed by a select few DBEs. The other factors considered were: barriers to entry such as education, training, employment and advancement; rate of business formation, closure, and earnings; and access to capital (including home ownership, home value, mortgage loan denials, sub-prime loans, business loan denial rates, and business loan values), bonding and insurance. Based

on all the evidence provided from these data sources, the agency reached a qualitative decision that a Step-2 adjustment was not necessary.

In developing this goal, Caltrans also involved public participation as is required by regulations. The agency consulted with its Statewide Small Business Council (SBC), the Associated General Contractors of California, the Southern California Contractors Association, the United Contractors Association, and the American Council of Engineering Companies. The agency received comments that listed barriers similar to some of those identified in the disparity study, and after careful consideration determined that no changes to the overall goal were warranted.

The race-neutral portion (3%) of the goal was determined by averaging the FY 2011-2015 (first half of 2015) race-neutral DBE participation, and subtracting this value from the overall goal to determine the race-and gender-conscious portion (9.5%).

**Program Implementation**

Procurement, final design, and construction arose as areas where DBE participation and goals are set, applied, promoted and assessed within the agency. The preliminary design and environmental studies phases are also areas in which DBEs are sometimes utilized. In addition, Caltrans also has a written performance plan with specific monitoring mechanisms to achieve these set DBE goals. For example, the agency includes specific language in DB and P3 project RFQ contracts. Among the requirements for proposers is the submittal of a DBE Performance Plan, scored on a pass-fail basis, in which the proposer outlines its plans on how to achieve the DBE goal. This includes identifying and listing DBE commitments and the types of work associated with those commitments. Also, the proposer may include possible strategies to be implemented to achieve the project’s DBE goals (see Appendix B for a sample performance plan). Despite the difficulty in evaluating whether a submitted plan will certainly result in meeting project goals, this approach allows the DB team more time and flexibility to identify and customize work components, develop smaller scopes of work, and involve more DBEs.

Furthermore, Caltrans has developed a set of DBE special provisions for DB projects which goes into much detail about a number of DBE-related items including submittal of the DBE performance plan, good faith efforts documentation, consequences of non-compliance, sanctions, reporting and payment.

**Program Challenges**

Similar to other agencies, the major challenge Caltrans faces when setting DBE contract goals for DB or P3 projects is the difficulty in identifying all potential subcontracting

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opportunities at an early stage with an incomplete design. According to one representative, planning-level cost estimates may be used but that could also lead to a much smaller set of bid items. Another issue that relates to setting goals is that the goals are set based on the availability of DBEs to perform particular work function; in the absence of the actual work items required for the project, goal setting becomes challenging.40

Resources, Monitoring and Oversight

Caltrans’ Office of Business and Economic Opportunity provides DBE support by offering training programs to certified DBEs, as well as outreach efforts to inform new and uncertified DBEs about the agency’s program. The office also conducts outreach events for each design-build project where the agency invites all proposers which provides a networking opportunity for DBE firms in addition to introducing such firms to the design-build methodology.

In terms of ensuring compliance, the agency implements different monthly and quarterly monitoring mechanisms to manage DBE implementation. For instance, during the construction phase, primes are required to provide progress reports with each invoice submitted, as well as annual progress reports. In addition, the agency has quarterly meetings with the contractor, as well as ensures that the contractor has a specified DBE liaison with the agency to allow proper communication between the DB team and DBE staff. One recommendation for improving monitoring and oversight offered by the agency was to monitor local agencies more closely because good faith efforts may not be adequately supported at the local level.41

Lastly, according to one representative, the agency is evaluating whether setting sub-goals is an effective strategy for ensuring diversification of DBE opportunities and meeting the overall goal. In the past, the agency has set sub-goals for design services in addition to the overall contract goal.

4.4 Colorado DOT (CDOT)

Goal Setting Methodology

Colorado DOT provides DBE opportunities via construction contracts, professional services contracts and design-build contracts. Thus, DBE processes at CDOT mostly depend on the procurement method being used as opposed to project phase; however, preliminary design & environmental studies, final design and construction are areas in DB projects where contract goals are applied, promoted or assessed. The agency’s goal setting methodology applied the entire state as its market area, and utilized data from the Unified Certification Program (UCP) DBE Directory and Census Bureau to calculate its base figure for DBE

40 NCHRP Synthesis 481 (2015).
41 Ibid.
participation. After adjusting this figure, the agency set its FFY 2016-2018 overall goal at 12.46%, with a split of 3.45% RN and 9.01% RC participation.

In setting the base figure of the process in Step-1, the agency compared the statewide DBE directory to its bidders’ list as a way of deciding whether or not the percentage accurately represented the availability of ready, willing and able firms in Colorado. After the agency could not identify any other information sources with more reliable construction and professional services DBE firms, it decided that using the directory was sufficient. CDOT then looked at contracting opportunities over the past three years in both professional services and construction (i.e., engineering, architecture, surveying, etc.) to determine its potential contracting opportunities for the coming years. The agency also considered the potential impact the Responsible Acceleration of Maintenance and Partnerships (RAMP) implementation would have. This relatively new project funding mechanism was implemented in 2013 to allow the agency to fund multi-year projects based on year of expenditure, rather than saving for a project’s full amount before construction begins, resulting in a project construction increase of about $300 million per year for 2014-2019. Despite this significant increase in the amount of contracting dollars, the agency concluded that the ratios of work types to be performed would remain relatively unchanged; thus, no modifications were made to the Step-1 base figure due to the contracting program change.

After identifying all ready, willing and able DBE firms (from the DBE directory), and the total number of firms in the state (from census data), the agency weighted the relative availability of opportunities in construction and professional services. Since bid items and task order data are unavailable on design-build projects, CDOT included professional services and construction portions of the DB budget from the previous three years in order to ensure that the final weighting accurately reflected all opportunities on CDOT projects. Eventually, a base figure of 10.64% was calculated.

The second stage adjustment was conducted by evaluating past participation on construction contracts, the CDOT construction bidders list, CDOT professional services prequalification list, the City and County of Denver Disparity study and other capacity concerns based upon the RAMP. Of all these different sources, including the construction past participation shown in Table 4.4, the agency decided that the only basis for adjustment was a significant disparity between the prequalification listing for the percentage of certified DBE professional services firms (19.5%) and the calculated availability of professional services (5.3%). Thus, the two figures were averaged to produce a new professional services percentage of 12.28%, and subsequently, a recalculated overall DBE goal of 12.46% \[\text{total amount of professional & construction opportunities ($)} / \text{total contracting opportunities ($)}\].

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42 These data were obtained from the Chief Engineer’s Objectives for FY 2014 Q2 Report.
Lastly, based on construction and total race-neutral average participations, the agency suggested a race-neutral/race-conscious split of 3.45% and 9.01% respectively.

<table>
<thead>
<tr>
<th>FFY</th>
<th>DBE Goal</th>
<th>Participation (From Year-End Uniform Report)</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>13.29%</td>
<td>14.24%</td>
<td>0.95%</td>
</tr>
<tr>
<td>2013</td>
<td>10.25%</td>
<td>12.59%</td>
<td>2.34%</td>
</tr>
<tr>
<td>2014</td>
<td>10.25%</td>
<td>11.70%</td>
<td>1.45%</td>
</tr>
</tbody>
</table>

Source: Colorado DOT DBE Overall Goal Methodology, FFY 2016-2018

In accordance with federal regulations, CDOT also involved industry stakeholder and minority group representatives by obtaining feedback on the calculated DBE goal. Among the many groups involved in this process were the Colorado Contractors Association, Hispanic Contractors of Colorado, Black Construction Group (a division of the Black Chamber of Commerce), Regional Transportation District DBE Advisory Committee, Conference of Minority Transportation Officials, Connect2DOT/Colorado Small Business Development Centers and American Council of Engineering Companies (ACEC) of Colorado.

Program Implementation, Monitoring & Oversight

As stated previously, DBE contract goals are set based on procurement type. CDOT staff therefore encounter challenges similar to those of other agencies when setting DB/P3 contract goals. To mitigate some of these challenges, the agency has decided to set two goals based on work types for future design-build projects. Submitted proposals are also required to include a DBE plan (DBE performance plan) that describes how the design-builder plans to meet the DBE goal or show good faith efforts. This plan is then scored by a committee consisting of civil rights staff and other departmental representatives (e.g., environment, communications); however, CDOT does not have specific criteria for evaluating these plans – it is left to the judgement of the evaluator. On a recent DB project worth $100 million, the highest scoring DBE plan had specific strategies for DBE participation by work area, and backup plans for meeting those goals43. This is somewhat different from the agency’s old approach which required DBE commitments to be made at the onset of the project. Design-builders would usually later have to change these commitments before the work occurred. The new system allows the design-builder to provide DBE commitments for only engineering-related DBE firms immediately after contract award, and the flexibility to provide construction-related commitments later in the

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43 NCHRP Synthesis 481 (2015).
project, but before those firms are used. Any non-compliance may then be remedied by withholding payment to the contractor until the issue is resolved\textsuperscript{44}.

Besides this, CDOT requires the design-builder to produce monthly progress reports on DBE participation in addition to regular project team meetings. Furthermore, the team also conducts a mandatory in-depth review every six months.

**DBE Resources**

Colorado DOT runs the Connect2DOT Program, a corporative agreement with the Colorado Small Business Development Centers (SBDCs), which offers technical assistance to DBEs including, but not limited to, one-on-one consulting, training, contractor outreach events, and access to CDOT project plans and website resources. Partnerships with organizations such as local and minority chambers, contracting associations, surety and insurance agents, workforce development centers, and support programs such as the West Central Small Business Transportation Resource Center, Procurement Technical Assistance Center, and Minority Business Development Agency enable CDOT to provide comprehensive support to DBEs.

In addition to these services, Connect2DOT also offers the LEADING EDGE\textsuperscript{TM} for Transportation program. This is a 10-week strategic planning program for contractors and professional service providers designed to develop leadership skills, facilitate key introductions within the business community, generate strategies for growth, and help DBEs perform successfully on CDOT projects\textsuperscript{45}. The program combines its courses with individual consulting, and covers topics including finance, management, marketing, bidding, operations, etc. Graduates of this program by using the provided resources, develop a viable business plan which is reviewed by a consultant team at the end of the 10-week program, and assessed again during quarterly check-ups. Another interesting way CDOT has decided to continue building DBE capacity is to offer a special LEADING EDGE for Transportation course during FFY2017 specifically for potential subcontractors on the agency’s C-470 Express Lanes (which is a design-build project) and I-70 East projects. The program’s curriculum will be designed to address project-specific requirements, as well as adapting or transitioning services from other local agency projects.

4.5 **Minnesota DOT (MnDOT)**

**Goal Setting Methodology**

The Minnesota DOT's goal setting methodology for the FFY 2016-2018 proposed goals differ slightly from the other states. In determining the market areas for the base goals

\textsuperscript{44} Ibid.

calculation, two methods were used as shown in Table 4.5: (i) political jurisdiction method (PJM), based on counties where contracts were awarded; and (ii) virtual jurisdiction method (VJM), based on zip code location of contracts and/or contractors in the MnDOT database between 2012 and 2014. This resulted in three different market area alternatives that yielded three different estimates of availability. In the first method, PJM-1 represents the entire State of Minnesota while PJM-2 represents the Minnesota counties where the total contract amount exceeds 75% of the total FHWA contract dollars and the marginal contribution of each county to the overall total contract amount is at least 1%.\(^{46}\) The third estimate, VJM-1, uses a similar approach to PJM-2 but focuses on zip codes.

### Table 4.5 MnDOT Geographic Market Areas (GMAs) for FHWA DBE Goals

<table>
<thead>
<tr>
<th>GMA</th>
<th>Definition</th>
<th>Total Amount</th>
<th>Share of $</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political Jurisdiction Method (PJM)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PJM-1</td>
<td>All Minnesota counties</td>
<td>$2,269,737,436.23</td>
<td>96.8%</td>
</tr>
<tr>
<td>PJM-2</td>
<td>Ranked Counties in USA where the total contract dollars for the sum of the counties exceeds 75% of FHWA contract dollars and the marginal contribution to the overall total is at least 1%</td>
<td>$2,091,621,059.51</td>
<td>89.2%</td>
</tr>
<tr>
<td><strong>Virtual Jurisdiction Method (VJM)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VJM-1</td>
<td>Ranked zip codes anywhere in the USA where the total contract dollars awarded for the sum of the zip codes exceeds 75% and the marginal contribution to the overall total is at least 0.25%</td>
<td>$2,238,004,515.52</td>
<td>95.4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>$2,345,528,580.11</td>
<td></td>
</tr>
</tbody>
</table>

Source: FHWA contracts between Oct. 1, 2011 and Sept. 30, 2014

Industry classifications were identified using the distribution of MnDOT contract dollars across different industry classifications from October 2011 to September 2014. In computing availability rates, all prime and subcontract files from MnDOT’s Office of Civil Rights between 2012 and 2014 were obtained, as well as data from the DBE certification directory, vendors list, bidders list, Dun & Bradstreet’s database and the U.S. Census Zip Code Business Patterns (ZBP) for 2012 were used. Thus, depending on the data source and market area combination, different DBE availability rates were identified. These estimates are shown in Table 4.6 and represent the geographical market-specific goals weighted

according to the percentage of contract dollars awarded in that area. In addition, the weighted base goal of 8.03% is the weighted average using the percent distribution of contract amount by geographic market area, not a simple average of the measures shown in the table.

Table 4.6 FHWA Availability Rates and Base Goal

<table>
<thead>
<tr>
<th>Method</th>
<th>PJM-1</th>
<th>PJM-2</th>
<th>VJM-1</th>
<th>Weighted Base Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bidders List Method</td>
<td>5.06%</td>
<td>3.87%</td>
<td>2.81%</td>
<td></td>
</tr>
<tr>
<td>DBE List Method</td>
<td>7.31%</td>
<td>8.89%</td>
<td>6.47%</td>
<td>8.03%</td>
</tr>
<tr>
<td>Vendors List Method</td>
<td>11.85%</td>
<td>11.04%</td>
<td>18.73%</td>
<td></td>
</tr>
<tr>
<td>D&amp;B Method</td>
<td>7.48%</td>
<td>7.04%</td>
<td>5.70%</td>
<td></td>
</tr>
</tbody>
</table>

Source: The Roy Wilkins Center for Human Relations & Social Justice (2018)

The calculated base figure was then adjusted by using two standard methods that detect and measure market discrimination in contract award amounts at the contract-level\(^\text{47}\). The first method, the “dummy variable method”, calculates the percentage difference in log-transformed (natural log) contract amounts that cannot be explained by relevant characteristics of the firm, the contract, or the industry, while controlling for relevant factors including whether or not a firm is a DBE. The discrimination gap that DBEs face when competing for prime or subcontracts is therefore the coefficient of the DBE term. The second method separately estimates the log-transformed contract amounts to DBEs and non-DBEs, and then computes the amount that DBEs would have received if they were treated like equally-situated non-DBEs. The discriminatory portion is then the difference between the actual contract amounts and the “equal treatment” amounts. This method is known as the Blinder-Oaxaca-Duncan residual difference decomposition. These two regression model estimates were then averaged resulting in a 45.7% adjustment for prime and subcontractor contract disparities.

Similarly, by using a detailed econometric method introduced by Myers and Ha\(^\text{48}\) (2009), relevant regression models were estimated to maximize the race-neutral component of the DBE goals. The results of the analysis predicted that 38.2% of the DBE goal could be achieved through race-neutral means, and 61.8% of the goal through race-conscious means.

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Implementation

The Minnesota DOT runs a race-conscious DBE program. Contractors are therefore required to meet the designated DBE goal or show good faith efforts towards meeting them. The agency sets separate DBE goals for the design and construction portions for DB/P3 projects, and incorporates DBE language into its contract documents. At the time of proposal, prime contractors must indicate their DBE commitments which may be different from the goal indicated in the RFP. After the proposal stage and during the course of the project, the selected design-builder or its designated DBE liaison must provide MnDOT with information for all its selected subcontractors. This includes the name, total dollar amount of the subcontract, specific work items, estimated quantities of work, and individual unit prices. These commitments are evaluated, approved and then incorporated into the contract as a contract specification by the agency.

The agency also has specific guidelines for DBE utilization in its Design-Build Manual. Under the civil rights section, there are guidelines covering internal DBE communication, setting the DBE goal, and roles and responsibilities of project staff in relation to achieving the DBE goal. For example, the internal communications guidelines require the DB program manager to contact the Office of Civil Rights when:

1. “Any design-build team communications are to take place;
2. A pre-RFQ meeting has been planned for a project;
3. An RFQ is advertised for a project; or
4. An RFP is advertised.”

Furthermore, the agency attaches a DBE special provisions document to its RFPs. This provides further guidelines concerning areas including: soliciting DBEs, methods for achieving the DBE goals, submittal of information, evaluating good faith efforts, DBE replacements, and failing to fulfill DBE goals. These guidelines supplement the inclusion strategies adopted by the agency for achieving DBE goals. Some of these strategies include de-bundling to provide an opportunity for small businesses to compete against others of similar size; providing a consistent and unified message that focuses efforts on meeting DBE goals as opposed to good faith efforts; holding prime contractors accountable for not making prompt payments; and mandatory subcontracting on certain projects to promote DBE participation in work areas that traditionally have not benefitted DBEs.

Resources, Monitoring & Oversight

The Minnesota DOT’s Office of Civil Rights has a section that is focused exclusively on increasing the capacity of DBEs. Resources provided to DBEs include training (bidding,

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49 NCHRP Synthesis 481 (2015).
50 Minnesota DOT DBE Special Provisions for Design-Build Projects.
accounting software, etc.), business development, the Working Capital Loan Fund (providing financing for eligible DBE firms), and other race-neutral resources. The agency is also involved in a MnDOT DBE and Workforce Collaborative which is made up of eight stakeholder groups, including MnDOT employees and FHWA, committed to bringing transformative and sustainable change to the agency’s Civil Rights program. The mission of the collaborative is to have contractors and workforce participation within Minnesota’s transportation industry reflect the demographics of the state.

Agency monitoring and oversight is conducted through a number of different means. One of the monitoring mechanisms used by the agency is to monitor DBE work and payment by requiring the design-builder to submit DBE work and payment schedule reports over the course of the project; the first report is due 60 days after the notice to proceed is given, and every 90 days thereafter for the remainder of the project. One area in which the agency noted that it could use improvement is in monitoring consulting projects. According to the agency, consulting projects are monitored in the same manner as construction projects even though certain aspects may not necessarily apply (e.g., CUFs or commercially useful functions). In addition, the agency’s DBE program staff are not as involved and coordinated with the people who oversee consultant contracts, as they are with construction project engineers. Therefore, a review of current strategies with the aim of identifying new opportunities to improve monitoring for consultant contracts would be beneficial to the agency.

4.6 Utah DOT (UDOT)
Goal Setting Methodology

The Utah DOT set its recent overall three-year goal for FFY 2016-2018 using one of the FHWA suggested approaches – use of a bidder’s list. The agency’s bidder’s list comprises firms that have gone through either prequalification or DBE certification and are therefore considered to be ready, willing, and able to bid on UDOT projects. Subsequently, the Step-1 base figure was calculated by first finding the ratio of DBE firms to all firms that are ready, willing, and able to bid for the work types to be funded by the agency. This figure was then weighted based on data from the past three years and 43 different work classifications to arrive at 5.594%.

Following this, an adjustment was made using the median DBE participation that had occurred on construction projects within the race-neutral and race-conscious categories number for the past three years. The median participation and the Step-1 base figure were then averaged resulting in a final FFY 2016-2018 DBE goal of 5.277%. Similarly, the race/gender-neutral and race/gender-conscious goal portions were determined by using

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52 NCHRP Synthesis 481 (2015).
the median percentage of dollars awarded over the previous three years within each of the two categories resulting in a 0.115% RN portion and a 5.162% RC portion.

**Implementation, Monitoring & Oversight**

The Utah DOT civil Rights Division sets a single DBE goal for its DB and P3 projects which proposers either indicate that they will meet or make good faith efforts to meet. The agency includes language in its RFPs that requires a list of committed DBEs or DBEs and dollar amounts. However, proposers are allowed to submit general commitments at the time of proposal. The caveat to this is that the winning proposer must submit detailed DBE commitments before using any subcontractors. DBEs are also notified via an agency DBE list serve when DB projects come out.

In terms of monitoring and oversight, the agency uses an in-house system that tracks payments made to DBEs to monitor construction work. Contractors are also required to enter payments by line items within 30 days of receipt of payment to ensure that DBEs are properly utilized and paid on time. According to the agency, current strategies may be improved by having DBEs sign an affidavit when payment is received in full and on time and would incentivize prime contractors to promptly pay DBE firms.

**4.7 Summary**

In summary, the case studies reveal the nuances involved in DOT DBE program implementation and the ways in which these agencies address common challenges. First, as shown in this section, goal setting methodologies differ from state to state; from simple methods like in the case of Utah, to more complex methods like those of Minnesota. Also, in terms of setting contract goals, DOTs are generally seeking ways to adapt to the new challenges encountered in the alternative project delivery environment, and evidence from this research and other literature shows a trend towards providing greater flexibility to contractors at the time of proposal submission. Thus, most proposers submit DBE commitments either with the proposal or immediately after proposal submission. They are then evaluated on a pass-fail basis, as opposed to using the score card method. In addition, contract goals are also set in two main ways for these six DOTs: a single goal for the entire project, or separate goals for design/professional services and construction. Some agencies such as Colorado and California also set DBE goals for the operational phase of some of their P3 projects. Lastly, some DOTs continue to invest in capacity building resources for DBEs and small businesses, usually by collaborating with local /state programs and initiatives.
5 Challenges & Recommendations

After a review of the literature and survey results, the research team distilled three areas that could be enhanced in the utilization of DBEs in DB and other alternative delivery programs at GDOT. These are as follows:

1. How to identify and communicate pre-award opportunities;
2. How to diversify DBE opportunities; and
3. How to achieve the desired behavior to attain DBE program goals.

A set of recommendations was developed to address each of these areas. In addition, targeted strategies are provided as guidance for the implementation of these recommendations. The rest of this chapter presents the recommendations with supporting strategies for each challenge.

5.1 How to Identify & Communicate Pre-Award Opportunities

From the survey of DBE practices conducted, the pre-award stage was identified as a challenging stage in the project lifecycle for utilizing DBE firms. The pre-award stage occurs after a highway project letting, but before the contract is awarded to the winning bidder. In design-build projects, the team stays together throughout the life of the project and therefore, it is better to consider DBEs at the early stage. To address this challenge, the following three main recommendations were offered:

1. Develop an interactive web-based database;
2. Enhance communication between project planners and DBE staff; and
3. Place DBE-relevant information on project websites.

5.1.1 Develop an Interactive Web-Based Database

The project team identified the development of an interactive web-based database as essential for successful implementation of the agency’s DBE program. In order to provide easy access to information on DBEs, it is recommended that the database has the following functions at the minimum. First, it must be linked to a DBE Directory that is searchable by the following:

1. Work Type
2. NAICS (North American Industry Classification System) Code
3. Company Name
4. Owner Name

Figure 5.1 shows an example of such a DBE Directory interface. In addition, the directory may also have a location-based search capability. This optional function has the potential benefit of providing easy access to information regarding DBEs within particular geographic
locations which may be used during the DBE goal setting process or other analyses. Likewise, contractors may also use this function to identify available DBEs in certain areas to potentially use in a contract bid.

Secondly, a Bid Request platform linked to this same database should be developed. Prime contractors may use this platform to solicit bids on work items, providing a means for automatically notifying all certified DBEs in the system. Bid requests may be created by entering information such as project number, project title, letting date, project location, funding agency, type of work needed, date/time needed, etc. If more specificity is desired, the system may be designed to notify only a subset of certified DBEs categorized under specified work areas e.g., bridge design, landscape design, hauling, etc. For this tool to be most effective, the database must be updated continuously with all new certified DBEs in the state.

Lastly, a bid request platform, that either requires contractors to enter information about submitted bids from DBEs or provides DBEs with a direct opportunity to submit bids on
quote requests, will provide transparency in the bidding process, in addition to creating a single point of data entry for the system users.

5.1.2 Enhance Communication between Project Planners & DBE Staff

Results from the survey showed that only 22% of respondents, representing 6 agencies, have specific guidelines or manuals for the utilization of DBE in design-build or P3 projects: Missouri, Montana, New York, Oregon, Texas, and Virginia. Such information is useful in understanding how these states achieve their goals. To enhance communication to facilitate successful DBE program implementation, it is therefore important for an agency to provide an explicit section on DBE considerations in their design-build manual. In addition, this section should include specific guidance on communications between project planners and DBE staff.

Figure 5.2 shows an example of a DBE Communication section from Minnesota DOT's Design-Build Manual. Such a section should cover DBE communication items such as early project notification, types of communication required, and who is responsible for each piece of communication. Notifying DBE staff early in the process ensures enough time for conducting advanced outreach, and setting the project's DBE goal.

Specifically, the DBE communication section should clearly outline the following:

1. The types of communication considered necessary, e.g., in writing
2. The purpose of the communication, e.g., early project notification, setting project goal, scheduling a meet and greet, ongoing project oversight and monitoring, etc.
3. The parties involved and their responsibilities, e.g., project manager, Office of Civil Rights, DB-project manager, etc.
4. The timing of the communication, e.g., prior to a pre-RFQ meeting, before RFQ advertisement, two weeks after RFP is issued, etc.
5.1.3 Place DBE-Relevant Information on Project Website

The third recommendation for identifying and communicating pre-award opportunities is to use project websites for DBE communications. Project websites can serve as an effective tool for DBE communication when relevant information is placed on the site in a timely manner. A list of DBE-relevant information that may be placed or linked to the site may be found below:

i. Contact information of critical DB staff responsible for DBE participation
ii. (Pre-)Qualification criteria for bidders or proposers
iii. Information on how to access DBE assistance and resources e.g., bonding assistance, loan programs, etc.
iv. Profiles of current DBEs working on the project and how they became involved
v. Other links to sites of interest

5.2 How to Diversify DBE Opportunities

The second challenge is how to diversify DBE opportunities. Pre-construction work and procurement are generally the two most challenging areas for DBE utilization in design-build projects. To address this issue, it is recommended that the agency:

1. Set sub goals,
2. Build the capacity of DBEs, and,
3. Unbundle large work packages where applicable.

These recommendations are discussed in more detail in the following section.

5.2.1 Set Sub Goals

Setting sub goals is a strategy being used by a number of agencies to help diversify DBE work opportunities. Based on the survey of DOTs, the most frequently mentioned problem in the process of utilizing DB projects in achieving DBE program goals is the goal setting. Unlike the traditional delivery methods, the design is not fully complete at the point of awarding the contract and, therefore, there are substantial uncertainties with regard to specifying the goals for DBE utilization. Setting sub goals is one of the most useful methods to solve this problem. Typically, DBEs are mostly involved in construction activities which may be problematic for DBE firms outside this category (e.g., design firms). Table 5.1 shows the goal setting approaches for the six DOTs reviewed as case studies in this project.

**Table 5.1 Case Study DOTs DBE Goal Setting Approach for DB/P3 Projects**

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Single Goal</th>
<th>Separate Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caltrans</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Colorado</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Minnesota</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Oregon</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Utah</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Virginia</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

In addition to California, Colorado and Minnesota, other states that set sub goals include Maryland, Missouri, Illinois, Delaware, Massachusetts, New York56, Rhode Island and Texas57. According to the NCHRP Synthesis 48158, 10 out of the 33 states that use DBE

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56 New York State DOT has the option of setting separate goals for the design and construction phase, as well as for other contract elements. However, this is decided on a project by project basis.
57 TxDOT set separate goals until 2014, when they reverted to the single goal approach.
58 NCHRP Synthesis 481: Current Practices to set and monitor DBE goals on design-build projects and other alternative project delivery methods, Transportation Research Board of the National Academies, 2015.
contract goals set separate goals, 20 set a single goal, and 3 set a goal only for construction\(^{59}\).

Setting sub goals for DBE utilization must reflect the agency’s need for diversity. That is, sub goals may be set according to the category of service where there is a need for diversity, e.g. design/professional vs. construction (Missouri DOT), according to disadvantaged group, e.g., WBE vs. MBE (Kansas DOT), or according to other contract elements based on the agency’s needs. Subsequently, the agency’s decision to set sub goals must be reflected in the relevant DBE-related documents (i.e., DB manual, RFQ, RFP, etc.). For example, NYSDOT’s DB manual reflects the agency’s decision to set sub goals with the following statement\(^{60}\), “the goals for the Project should be a combination of a consultant goal for the design portion, and a construction goal for the construction portion.” Another example seen in Figure 5.3 shows how Missouri DOT sets two separate goals for construction and professional activities in a DB project RFQ.

![Disadvantaged Business Enterprises](image)

**Figure 5.3** DB Project RFQ Showing DBE Sub Goals

*Source: Missouri DOT, (2013). Rogersville Project Freeway Design-Build Project Request for Qualifications. Project # J8P0683*

In order to ensure that sub goals are met by the design-builder, the RFQ also includes “DBE utilization” as part of the scored criteria under a “Teamwork and Quality Approach” section. In this section, the design-builder (submitter) must describe in writing how it plans to meet or exceed the two DBE goals, as well as provide examples of past performance. Requiring examples or a record of past performance is not a strategy unique to Missouri DOT. Oregon DOT also requires submitters to fill out a Past Performance Form which shows the extent to which submitters achieved or failed to achieve DBE goals in previous projects. By using this form, contractors that continually do not meet DBE goals may be identified.

It is important to note that setting an overall DBE participation goal, and then specifying separate categories of service without attaching a specific percentage figure to each of them, may or may not lead to the contractor achieving sub goals. For example, an agency

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\(^{59}\) These are North Carolina, South Carolina, and Tennessee.

that specifies that an overall goal of 7% should be achieved through a combination of professional service and construction firms, but does not explicitly state the percentage contribution for each category may be unsuccessful in achieving both sub goals. To provide flexibility and address the uncertainty associated with setting DBE project goals, the agency may specify a range, rather than a single value for project sub goals (e.g., 5 -10% professional service and 10 -15% construction).

5.2.2 Build DBE Capacity

The second recommendation for diversifying DBE opportunities is aimed at helping new or existing DBE firms diversify their work capabilities and job skills. This may be accomplished by first evaluating existing DBE market conditions to identify work areas with an overconcentration or deficiency of firms, and then strategically tailoring supportive services programs to target those identified areas. Data can be obtained from the Census Bureau’s County Business Patterns (CBP), the agency’s DBE directory, or a disparity study for such a market analysis.

After specific work areas are identified, some frequently used supportive services that may be implemented are as follows:

1. Business development (including mentor-protégé programs);
2. On-the-job training, which can be used to improve technical and management skills of DBE firms.
3. Bonding assistance, which can be used to encourage new firm development in low participation work areas by simplifying the bonding process and providing assistance with bond guarantees;
4. Proposal writing, cash flow analysis and estimating and bidding.

5.2.3 Encourage Unbundling of Work Packages

Lastly, it is recommended that the agency encourages contractors to unbundle work packages to increase DBE participation. For example, Colorado DOT implemented this strategy in their $40 million safety and mobility improvement design-build project on U.S. 285. This project consisted mainly of replacing three structurally deficient bridges and reconstructing a portion of U.S. 285. During the project, the agency continued to pay unsuccessful proposers stipends as a way of providing the winning proposers access to different innovations and ideas. This encouraged work opportunities (i.e. unbundling) for DBEs and small businesses and resulted in an introduction of new firms into the construction process.

Furthermore, it is recommended that GDOT makes value judgments based on project type to either require or encourage primes to subcontract portions of work they might otherwise perform themselves. This could also be modified and extended into the agency’s mentor-protégé program.
5.3 How to Achieve Desired Behavior to Attain Program Goals

During the course of this study, the research team came to the understanding that GDOT desired a means of forming “DBE-positive” attitudes and behaviors among its contractors to increase the success of the DBE program. To help the agency achieve this goal, it is recommended that the agency (i) monitors and ensures compliance through both traditional and enhanced methods, and also (ii) uses explicit language in DB project documents.

5.3.1 Use Explicit Language in Project Documents

As stated previously, having explicit language in project and contract documents (e.g., DB manual, RFQ/RFP, etc.) that outline the agency’s DBE utilization requirements for all stakeholders (contractors/consultants, DBEs, and agency staff) is essential for the success of the program. The roles and responsibilities of DBE program staff, project planners and the contractor’s DBE compliance manager, among others, should be clearly stated for successful DBE program implementation. In addition, the time provisions for DBE deliverables such as progress reports, submission of DBE performance plan, DBE work payments and monitoring activities should also be outlined.

5.3.2 Monitoring and Ensuring Compliance

Monitoring for compliance is a key step in ensuring the success of any program. In addition to attaining the agency’s DBE goals, improved monitoring methods prevent or reduce fraudulent activities, ensure increased or full participation of eligible DBE firms, and enhance or ensure proper diversification of DBE firms across contracts. For this reason, it is recommended that the agency adopts a monitoring and compliance tool.

5.3.2.1 Adopt a monitoring and compliance tool

A monitoring and compliance tool should be adopted for use in GDOT’s DBE Program and may come in the form of a business diversity management software tool. While such tools can be tailored to the agency’s needs, they also usually have certain basic functions including: contract and concession compliance, certification processing and online applications, goal setting and bid tracking, labor compliance and prevailing wage, outreach management and vendor management. At a minimum, it is recommended that the tool adopted by the agency has the following capabilities:

1. **Bidders List**: Primes would use this tool to report a list of vendors that they receive quotes from when bidding on projects.

2. **DBE Commitments**: Primes would report DBE commitments for sub-contractors to compliance staff. Certified DBEs would also report on their own work portions.

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3. **Sub Payments**: Primes would report any payments made to DBE subs.

4. **Monitoring Submissions**: Agency staff would use tool to monitor and review entries submitted by prime contractors.

5. **Reports**: Tool would be used to display data submissions and contract information, as well as to run various analyses.

Such a tool will also have the ability to run various analyses on the data inputted which would be useful in setting DBE goals, as well as conducting market evaluations to determine work areas that are either over concentrated or deficient. Users of this system would include the following roles and functions:

1. Prime contractor/consultant – For data entry purposes
2. Compliance/DBE staff – To review and monitor entries
3. Administrative staff – To maintain and oversee the system, run ad hoc reports, as well as grant users access
4. Report users – To run reports only (read-only access)

Ideally, this system would serve as a single point of contact for all DBE related items. Thus, having the DBE directory and bidders list linked to the monitoring and compliance tool would provide contractors and agency staff with easy access to DBE information. This system would also provide transparency, ensure monitoring of data submissions, provide checks and balances, and enable various types of diagnostics to be performed.

The rest of this section highlights Florida DOT’s Equal Opportunity Compliance (EOC) system which was developed in-house by FDOT IT and made available in October 2012. Figure 5.4 to 5.8 show screenshots of the contractor and report user interfaces of FDOT’s EOC. This tool is an example of a well-designed diversity management system with the four critical capabilities outlined in the previous paragraph. The first screenshot, Figure 5.4, shows how a contractor would add a new sub agreement and DBE commitment to the system. The contractor would have to specify the sub tier level, the NAICS code for the type of work being sub-contracted, and the commitment amount. Figure 5.5 then shows how a contractor enters payment information into the system. The contractor specifies the date of payment, the range of dates the work was performed, and the DBE credit amount. The contractor also has the option of entering any comments regarding the payment, for example, an explanation for a zero payment. The next screenshot, Figure 5.6, shows the home screen for the report user role and highlights the restricted access this user would have to the system. Examples of the types of reports that may be generated from this system are shown subsequently in Figure 5.7 (which shows a breakdown of anticipated DBE participation by district for a particular year) and Figure 5.8 (which shows a breakdown of federal dollars allocated to DBEs by minority group type).

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Figure 5.4 Screenshot Showing How to Add a New Sub Agreement

Figure 5.5 Screenshot Showing Payment Screen
Figure 5.6  Screenshot Showing Limited Functionality of a General Report User Role

Figure 5.7  Screenshot Showing Anticipated DBE Participation by District & Type of Work
5.3.2.2 Enhance traditional methods

In addition to adopting a monitoring and compliance tool, the agency would benefit from enhancing the existing monitoring and compliance approaches. These include:

1. Site visits
2. Interviews of personnel on job site
3. Verification of certified payroll
4. Review of company policies
5. Evaluation of “good faith efforts”
6. Verification of DBE certifications
7. Review of cancelled checks paid to subcontractors, sub-consultants and suppliers

Enhancing these approaches would help reduce fraudulent activities such as false eligibility, use of front companies, or the use of conduit companies.

5.4 Summary

In summary, the research team developed a synthesis of the best knowledge and practices on DBE involvement in DB and other alternative delivery methods, and identified three potential areas of enhancement for GDOT’s DBE program. These enhancements are related to identifying and communicating pre-award opportunities, diversifying DBE opportunities, and achieving the desired behavior in order to attain program goals. Eight

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63 Disadvantaged Business Enterprise Program Contract Compliance Monitoring. Columbus Regional Airport Authority.
recommendations with targeted companion strategies were thus made for strengthening the agency’s existing DBE program. The main recommendations are as follows:

1. Develop an interactive web-based database;
2. Set sub goals in contracts;
3. Ensure monitoring and compliance;
4. Enhance communication between DBE staff and project planners;
5. Place DBE relevant information on project websites;
6. Build DBE capacity;
7. Encourage unbundling of work packages in DB manual; and
8. Use explicit language in project documents.

These challenges and their respective recommendations with companion strategies are outlined in Figure 5.9 and are a point of departure for enhancing GDOT's DBE Program and business practice.
6 Conclusion

The aim of this research was to conduct a cradle-to-grave review of the involvement of DBEs in Design-Build (DB) and other alternative project delivery systems, in order to synthesize existing best practice strategies in State DOTs to effectively utilize DBEs in Design-Build and other alternative project delivery systems. It was also to identify opportunities and offer recommendations for enhancing Georgia Department of Transportation’s DBE Program. The research made use of three main methods, namely, a literature review and synthesis, a national survey with a 50% response rate, and in-depth case study analyses of six DOTs: OR, VA, CA, MN, CO and UT. The research results show that the main challenges faced by DOTs in implementing the DBE program for DB and P3 projects were related to the difficulties in setting DBE contract goals with limited project information; unavailability of DBEs; framing RFP language to align with DBE goals; communicating DBE program expectations to contractors; and DBE program compliance being viewed as a low priority for prime contractors due to the complexities of DB projects. The research shows that despite these challenges, some DOTs have found innovative strategies to ensure the success of their DBE programs in alternative delivery projects. The most effective strategies were extracted and recommended to GDOT to enhance the agency’s DBE Program in the following areas: (i) identifying and communicating pre-award opportunities, (ii) diversifying DBE opportunities, and (iii) achieving the desired behavior in order to attain program goals. To address these challenges, the research team recommends that the agency does the following:

1. Develop an interactive web-based database;
2. Set sub goals in contracts;
3. Ensure monitoring and compliance;
4. Enhance communication between DBE staff and project planners;
5. Place DBE relevant information on project websites;
6. Build DBE capacity;
7. Encourage unbundling of work packages in DB manual; and
8. Use explicit language in project documents.
APPENDIX A
Effective Utilization of Disadvantaged Business Enterprises (DBE)
in Alternative Delivery Projects - Survey

1. Introduction

Georgia Institute of Technology is conducting this survey to identify best practices for involving DBEs in design-build and public private partnership (P3) project delivery. This research project is sponsored by Georgia Department of Transportation.

Thank you for participating in this survey. Your input is important.

1. Respondent Information:

Name

Job Title/Position

Name of Agency

Organizational Unit

Number of Years with Agency

Number of Years at Your Current Position

Email Address

Phone Number

2. General DBE Program

2. Does your agency have any specific office/division for the utilization of DBEs in design-build or public-private partnership (P3) projects?

- [ ] Yes

- [ ] No

If yes, what is the name of the unit?
3. Has your agency defined a specific set of goals for the utilization of DBE in design-build or P3 projects?
   - Yes
   - No

   If yes, could you please email the goals outline to irg@ce.gatech.edu?

4. Has your agency developed specific criteria to address DBE utilization in design-build or P3 RFQs or RFPs?
   - Yes
   - No

   If yes, could you please email the DBE section of your RFQ or RFP to irg@ce.gatech.edu?

5. Has your agency developed specific language to address DBE utilization in design-build or P3 RFQ contracts?
   - Yes
   - No

   If yes, could you please email the DBE section of your design-build contract to irg@ce.gatech.edu?

6. Does your agency have any specific guidelines/manual for the utilization of DBE in design-build or P3 projects?
   - Yes
   - No

   If yes, could you please email the guideline/manual to irg@ce.gatech.edu?
3. General DBE Program

7. What are the unique challenges for the effective utilization of DBEs in design-build or P3 projects in comparison with conventional design-bid-build projects (from the perspectives of your agency, prime contractors, and DBEs)?

8. Typically, at what stage of project development process does your agency consider DBE issues in design-build projects?

- Visioning and Policy
- Long-range Planning and Programming
- Concept Development
- Preliminary Design and Environmental Studies
- Procurement
- Final Design
- Right-of-Way Acquisition
- Utilities Relocation
- Construction

Other (please specify)

9. Are there any specific types of work and services that work well with the implementation of DBE? (Explain why).

- Concept stage/Environ./NEPA
- RFQ & RFP stage
- Post award - design & construction
10. Are there any specific types of work and services that do not work well with the implementation of DBE? (Explain why).

- Concept stage/Environ./NEPA
- RFQ & RFP stage
- Post award - design & construction

11. What incentives exist for design-build contractors to involve DBEs during procurement activities (RFQ and RFP phases)?

4. Program Goals

12. In which of these areas do you set, apply, promote, and assess DBE participation and goals? (Check all that apply.)

- Visioning and Policy
- Long-range Planning and Programming
- Concept Development
- Preliminary Design and Environmental Studies
- Procurement
- Final Design
- Right-of-Way Acquisition
- Utilities Relocation
- Construction
- Other (please specify)
13. Does your agency/department have any of the following instruments/mechanisms for the areas listed? (Check all that apply.)

<table>
<thead>
<tr>
<th>Area</th>
<th>Specific DBE goals within contract goals</th>
<th>Written performance plans (with specific monitoring &amp; oversight mechanisms) to achieve DBE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visioning and Policy</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Long-range Planning and Programming</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Concept Development</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Preliminary Design and Environmental Studies</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Procurement</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Final Design</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Right-of-Way Acquisition</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Utilities Relocation</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Construction</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

14. For each of the following categories, please indicate the effectiveness of the monitoring & oversight mechanisms.

- Visioning and Policy: 
- Long-range Planning and Programming: 
- Concept Development: 
- Preliminary Design and Environmental Studies: 
- Procurement: 
- Final Design: 
15. How can these monitoring and oversight strategies be improved?

16. What challenges do you face when setting DBE contract goals for design-build or public-private partnership (P3) projects?

17. What strategies have you used or are you currently using to involve public participation in setting DBE goals?

18. What strategies do you use to avoid over-concentration of DBEs and non-DBEs in certain types of work?

19. At the agency level, what resources are available to build up the capacity of DBEs to effectively participate in design-build or P3 projects?
20. Do you have at least one supportive service (i.e., capacity building) program to assist DBEs?

- Yes
- No

21. If yes, which ones?

22. How many providers do you use?

23. What are the main areas that your agency is planning to improve the utilization of DBEs in design-build or P3 projects?

24. Would you or a representative be willing to participate in a brief follow-up phone interview or facilitated panel discussion on this topic?

- Yes
- No

Thank you for participating in this survey. Your input is important.
APPENDIX B

California Department of Transportation UDBE Performance Plan
Sample

UDBE Performance Plan

Plan Goals

The California Design Builders Team (Team) pledges to demonstrate leadership through innovative programs that support and empower the Disadvantaged Business Enterprises. We will achieve the Department’s goal of 16.2% UDBE participation of the total contract. This will be accomplished through a variety of methods, as well as through the established, successful relationships between the California Design Builders Team members and UDBE companies in the local area.

California Design Builders Contractors UDBE commitment for each segment of the work is as follows:

**Design**: California Design Builders Commitment of 29.8% of the total contract price for Design of all construction work; plus

**Construction**: California Design Builders Commitment of 14.5% of the total contract price for all Construction Work.

Major subcontractors and vendors will be obligated to provide UDBE participation through the term of their contracts. During the bidding process, California Design Builders will evaluate all bid packages to determine the potential for inclusion of UDBE participation in the specific scope of work. Not all trade packages can achieve the 16.2% minimum requirement, yet others may have opportunities for 100% participation.

California Design Builders will specifically include in contracts an agreed minimum participation and a goal for each major subcontract and require monthly reporting of dollar amounts awarded and paid to UDBE subs to ensure that the inclusion goals are being met. Failure to comply in good faith with the inclusion goals will be addressed with prompt and effective remedial action by California Design Builders. Any contractor that fails to provide requested documents or misrepresents facts in such documents will be deemed to be non-compliant and added retention on their monthly payments may be held until proper documents are submitted. All plans will be monitored for compliance by the California Design Builders Team.

Plan Implementation

Members of the California Design Builders Team have been involved in many major projects in which the owner or a governmental jurisdiction established overall UDBE, DBE or other participation goals for subcontracting and workforce participation. Our success in meeting subcontracting goals on signature
past projects, illustrates our commitment to the design and implementation of effective and meaningful participation programs resulting in exceeded project goals.

California Design Builders believes that by maximizing opportunities for UDBE participation, we will establish long-lasting, successful business relationships, while helping to promote often underdeveloped local small businesses.

California Design Builders has developed an aggressive plan to ensure maximum participation of UDBE firms for the Department’s Project (Project). The Team is firmly committed to the goals established for the Project and will aggressively recruit UDBE’s and other qualified local subcontractors and suppliers throughout the life of the Project. Our strong commitment to meet or exceed the goals requires different approaches during design, construction and operation phases of the overall contract.

**UDBE Design Commitment**

California Design Builders’ UDBE Design commitment consists of utilizing the following design subconsultants working for our overall Principal Design Subcontractor ACME.

<table>
<thead>
<tr>
<th>Subcontractor or Supplier</th>
<th>Type of Work</th>
<th>%UDBE Credit</th>
<th>UDBE Design</th>
<th>%UDBE Commitment of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith Engineering</td>
<td>Civil Design</td>
<td>100%</td>
<td>$850,000</td>
<td>11.0%</td>
</tr>
<tr>
<td>Stop Light, Inc.</td>
<td>Traffic Engineering</td>
<td>100%</td>
<td>$1,450,000</td>
<td>18.8%</td>
</tr>
<tr>
<td>Total Design – UDBE Commitment</td>
<td></td>
<td></td>
<td>$2,300,000</td>
<td>29.8%</td>
</tr>
<tr>
<td>Total Design Price</td>
<td></td>
<td></td>
<td>$7,700,000</td>
<td></td>
</tr>
</tbody>
</table>

**UDBE Construction Work Commitment**

California Design Builders has selected the following major construction subcontractors that exceed the 0.5% of contract value: Current, Inc. (Electrical Subcontractor), Striping, Inc. (striping), Corral Corporation (fencing) and Level Line (grading). Striping, Inc., Level Line and Corral Corporation are UDBE subcontractors that are currently working with California Design Builders.

Additionally California Design Builders has selected Equipment Plus to negotiate price, determining quality and quantity ordering the material and paying for the material itself. Equipment Plus is a recognized UDBE regular dealer who has provided this service to California Design Builders’ parent company, Century Construction, for the Sacramento International Airport expansion. Additionally Equipment Plus has worked on LA-60 Freeway Interchange Modification, San Joaquin Hills Transportation Corridor, and San Diego Expressway projects. On these projects Equipment Plus provided materials, equipment, electrical, radio communications, lighting and other items. Equipment Plus has been in business since 1966. Equipment Plus will provide the staff required to handle the complete procurement of digital message signs, toll equipment, electrical equipment, transponders, signs and sign structures.
California Design Builders also had identified Zap Consulting (UDBE) to provide the services of a Third Party Utility Coordinator. Led by Ted Lightfoot, PE, Zap Consulting has 10 years of experience providing third party and utility coordination for a full-range of transportation projects in the public sector. Recent project experience includes the Sacramento Light Rail Project, the Stockton Interchange Project and the Fresno Freeway Widening Project.

California Design Builders foresees additional UDBE construction opportunities in purchasing drainage material and office security tracking.

Additionally, California Design Builders will commit to meeting the Department’s UDBE goal of 16.2% for the Provisional Sum Work. California Design Builders’ Construction Work UDBE commitment is shown below:

<table>
<thead>
<tr>
<th>Subcontractor or Supplier</th>
<th>Type of Work</th>
<th>%UDBE Credit</th>
<th>UDBE $s Construction</th>
<th>%UDBE Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Striping, Inc.</td>
<td>Striping</td>
<td>100%</td>
<td>700,000</td>
<td>1.0%</td>
</tr>
<tr>
<td>Level Line</td>
<td>Grading</td>
<td>100%</td>
<td>1,000,000</td>
<td>1.5%</td>
</tr>
<tr>
<td>Corral Corporation</td>
<td>Fencing/Traffic Control Items</td>
<td>100%</td>
<td>600,000</td>
<td>1.0%</td>
</tr>
<tr>
<td>Zap Consulting</td>
<td>3rd Party Utility Coordinator</td>
<td>100%</td>
<td>100,000</td>
<td>0.2%</td>
</tr>
<tr>
<td>Equipment Plus</td>
<td>Sign, Sign Structures, Digital Message Signs, Tool Equipment</td>
<td>60%</td>
<td>4,100,000</td>
<td>6.5%</td>
</tr>
<tr>
<td>Current, Inc</td>
<td>Electrical Equipment</td>
<td>60%</td>
<td>600,000</td>
<td>1.0%</td>
</tr>
<tr>
<td>UDBE Subtotal to Named Firms</td>
<td></td>
<td></td>
<td>$7,100,000</td>
<td>11.2%</td>
</tr>
</tbody>
</table>

**TO BE SELECTED ITEMS**

| To Be Selected | Trucking | 100% | 30,000 | 0.1% |
| To Be Selected | Drainage Material | 100% | 30,000 | 0.1% |
| To Be Selected | Dowel Bars | 100% | 20,000 | 0.1% |
| To Be Selected | Bridge Demolition | 100% | 30,000 | 0.1% |
| To Be Selected | Clear and Grub | 100% | 20,000 | 0.1% |
| To Be Selected | SWPP | 100% | 275,000 | 0.5% |
| To Be Selected | Landscaping | 100% | 90,000 | 0.2% |
| To Be Selected | Office - Security | 100% | 300,000 | 0.5% |
| To Be Selected | Office - Cleaning | 100% | 100,000 | 0.2% |
| To Be Selected | Schedule Consultant | 100% | 25,000 | 0.1% |
| To Be Selected | Traffic Consultant | 100% | 100,000 | 0.2% |
| To Be Selected | Vibration Monitoring | 100% | 25,000 | 0.1% |
| To Be Selected | Potholing | 100% | 100,000 | 0.2% |
| To Be Selected | Provisional Sum | 16.0% | 525,000 | 0.8% |

| UDBE Subtotal “To Be Selected” Items | $1,670,000 | 3.3% |

**Total Construction UDBE Commitment**

| Total Construction UDBE Commitment | $8,770,000 | 14.5% |

**Total Construction Price**

| Total Construction Price | $60,500,000 |
DBE Utilization

The following table outlines our committed DBE subcontractors.

<table>
<thead>
<tr>
<th>Subcontractor or Supplier</th>
<th>Type of Work</th>
<th>DBE Contract Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONSTRUCTION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QC Associates</td>
<td>Quality Control</td>
<td>$1,500,000</td>
</tr>
<tr>
<td><strong>Total DBE Construction</strong></td>
<td></td>
<td>$1,500,000</td>
</tr>
<tr>
<td><strong>DESIGN</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rock Associates</td>
<td>Geotechnical</td>
<td>$100,000</td>
</tr>
<tr>
<td>TMS Inc</td>
<td>Traffic Management/Signing</td>
<td>$400,000</td>
</tr>
<tr>
<td><strong>Total DBE Design</strong></td>
<td></td>
<td>$500,000</td>
</tr>
</tbody>
</table>

Summary of Goal Attainment

In summary, a total commitment of sixteen point two percent (16.2%) of the total contract price will be committed to UDBE’s as shown in the following table.

<table>
<thead>
<tr>
<th></th>
<th>California Design Builders Price</th>
<th>California Design Builders UDBE Commitment $s</th>
<th>UDBE Commitment % Based on Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>$7,700,000</td>
<td>$2,300,000</td>
<td>3.4%</td>
</tr>
<tr>
<td>Construction</td>
<td>$60,500,000</td>
<td>$8,770,000</td>
<td>12.8%</td>
</tr>
<tr>
<td>Total</td>
<td>$68,200,000</td>
<td>$11,070,000</td>
<td>16.2%</td>
</tr>
</tbody>
</table>

The estimated dollars amount to be awarded to UDBE and DBE firm per year is show below.

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</tr>
</thead>
<tbody>
<tr>
<td><strong>Design</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UDBE</td>
<td>2,300,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DBE</td>
<td>500,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>2,800,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td>2011</td>
<td>2012</td>
<td>2013</td>
<td>2014</td>
<td>2015</td>
<td>2016</td>
<td>2017</td>
<td>2018</td>
</tr>
<tr>
<td>UDBE</td>
<td>3,500,000</td>
<td>4,500,000</td>
<td>770,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DBE</td>
<td>800,000</td>
<td>700,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>4,300,000</td>
<td>5,200,000</td>
<td>770,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

UDBE Program Administration

To manage the activities affecting the procurement and utilization of UDBE firms, California Design Builders will identify a UDBE Compliance Manager. This person will be assisted by representatives of each team member firm in implementing UDBE compliance throughout the Project. This individual will report to the Project Manager, and will serve as liaison to the Department’s designated UDBE liaison.
UDBE Compliance Manager will integrate the administrative details of UDBE subcontractor procurement, monitoring, and reporting to the overall project procurement and administrative organization.

**Strategies For Achievement of Goals**

The goals will be achieved through a multi-tiered approach, including activities in these main areas:

- Public Awareness Program
- UDBE Database Management
- Capacity Building for UDBE Business
- Tracking and Reporting

Activities in each of these areas are described below. Portions of the plan have already been implemented in preparation of our proposal and will continue to be followed by all construction management staff and subcontractors/consultants working on the Project. In addition, we will conduct UDBE compliance training for our project management team to ensure that the team members are knowledgeable about the goals and objectives and actively involved in the plan’s implementation.

**PUBLIC AWARENESS PROGRAM: Getting the word out**

The California Design Builders Team knows from experience that public awareness is an essential element of any plan to maximize UDBE participation on major projects. Our goal, from pre-construction through completion, will be to keep all lines of communication open with local businesses and the community-at-large to raise awareness about project opportunities. The California Design Builders Team has already been active in communicating with the subcontracting community with regard to the opportunities available on the Project. We have attended the Department’s UDBE workshop and have contacted out hundreds of UDBE certified forms. UDBE response and interest has been tracked and a significant effort has been made to ensure that they remain interested in the opportunity.

While we have implemented a significant outreach program for the preparation of this proposal, we realize that this is an on-going effort. We will continue the public awareness program after award to ensure that UDBE’s are aware of additional opportunities available to them with major subcontractors. This will further expand opportunities for UDBE’s and help our major subcontractors meet their UDBE goals.

In conjunction with the Department, we will develop the following communication tools: a website; Business Opportunity Fairs; and targeted outreach to business and community organizations. We have utilized many of these methods already, and will continue to utilize them throughout the life of the Project.

**Website**

With the approval of the Department, California Design Builders will utilize the Project website to enhance advertisement of contracting and procurement opportunities to UDBE firms. We will also share information on the Project team’s involvement in local community events to help gain a positive focus for the Project in the community.
Information on the website will include:

- Contact information for critical California Design Builders staff responsible for overseeing UDBE participation;
- Invitations to all public meetings, with special emphasis on those relevant to the UDBE community;
- Bidders/proposers pre-qualification criteria/requirements and UDBE required commitments;
- Access to technical assistance resources, such as small business loan programs, bonding assistance programs and other business development programs;
- Profiles of UDBE subcontractors who are working on the Project and how they became involved; and
- Links to other related Web sites of interest.

The website will provide an interactive resource where contractors can report their interest in the Project and provide information on their qualifications. The website will be promoted through mailings, emails and newsletters distributed to UDBEs, business and UDBE advocacy groups, religious and community organizations, and the news media.

**UDBE DATABASE MANAGEMENT: Keeping Track of Potential Subcontractors**

The California Design Builders Team maintains and regularly expands a database of UDBE firms in Southern California. Thanks to our work on projects throughout the Los Angeles region, we have developed database of local businesses—and, as a result, the capability to identify available businesses to perform tradeswork. The California Design Builders Team will employ a number of qualified UDBE subconsultants, preferably local to the Project area, to supplement our engineering, and project management efforts. Through our principal designer, ACME the California Design Builders Team has a relational database of local UDBE consulting firms known to the Team and/or listed in the qualified directories of the Department and other local public transit operators.

**CAPACITY-BUILDING: Helping UDBE Firms Succeed and Grow**

Through training, mentor-protégé relationships and technical assistance referrals, California Design Builders will help build the capacity of these firms to succeed, both on this project and in the future. Programs that the California Design Builders Team will offer to assist UDBE firms include:

**Educational Seminars**

California Design Builders will offer educational seminars for participating UDBE subcontractors to strengthen their business management capacity in areas from project management and scheduling to estimating.

Among the educational offerings for UDBE firms will be workshops on how to successfully do business with California Design Builders on the Project. In these sessions, participants will learn what it takes to compete successfully for opportunities on the Project. Other workshops will cover such topics as: construction contracting and requirements, professional services contract award process and
requirements; bonding and insurance requirements; prequalification, bidding and invoicing; and financing/access to capital.

**Bonding Capacity**

In addition to offering training and support in both technical and administrative areas, California Design Builders will facilitate access to independent bonding lines by developing a program that includes overviews of insurance, bonding and selected banks which will allow qualified subcontractors to take the next step and become prime contractors.

This step will increase control within the UDBE community and offer a more meaningful participation within the business community without being tied to a specified project or contractor.

**TRACKING AND REPORTING: Documenting our Progress**

California Design Builders will implement a system for tracking and reporting progress toward the Department’s goals for UDBE participation. We know from experience that an effective tracking and reporting system requires active participation on the part of all members of the construction team, including project managers, subcontractors and other stakeholders. We also understand the importance of keeping the Department fully informed about UDBE participation on a regular basis.

**UDBE Participation Reporting**

Our UDBE Compliance Manager will be responsible for coordinating the compilation of UDBE participation reports. The primary goal of this reporting will be to track the dollar amounts awarded to prime contractors, and to summarize UDBE participation in both dollar and percentage terms. These reports will be used to keep all stakeholders informed of the level of UDBE involvement in the Project and to demonstrate compliance with the performance. In addition to tracking the level of UDBE participation in the Project, California Design Builders will maintain records of all outreach efforts to local, small and disadvantaged business, including: organizations contacted to identify UDBEs; source lists and other data used to identify UDBEs; lists of solicitations and responses; and records of participation in trade conferences.

In California Design Builders’ experience, these reports can prove particularly useful in identifying broader contracting trends as well as opportunities for stepped-up outreach to local, small and disadvantaged businesses. As a result, all reports will be shared with California Design Builders’ project managers and the Department. The goal: to stimulate a collaborative effort to identify and respond to opportunities to maximize UDBE involvement in the Project.

Our UDBE Performance Plan Compliance Manager will prepare monthly, annual and final reports on UDBE participation for the Project. This report will include all aspects of the implementation of the California Design Builders Plan. In addition, at the conclusion of the Project, California Design Builders will prepare and submit a final report on UDBE participation, reflecting final contract amounts and payments.

**Post-Award UDBE Contract Monitoring**
The Team’s UDBE Compliance Manager will lead the Team’s efforts to monitor UDBE contracts once they have been awarded. Contract compliance monitoring will include, but will not be limited to:

- **Establishing and maintaining the integrity of contract compliance files and incorporating contract compliance UDBE records into the master contract file.** The Team’s UDBE compliance staff will work with the other Team members to make sure that contract memoranda, decision memoranda, and correspondence to and from prime contractors and UDBE contractors are routinely reviewed, analyzed, responded to, noted in the computerized database, and properly filed in the contract file.

- **Making sure that all UDBE firms awarded contracts have appropriate UDBE certification.** The Team will make sure that all firms projected to satisfy UDBE goal requirements secure appropriate certification approval. The UDBE Compliance Manager will routinely review the current certification status of the submitting firms to make sure that only certified firms participate on contracts as the identified UDBE firm.

- **This individual will implement corrective action, as required, to make sure that the selected team members are apprised of the certification status of UDBE firms participating on contracts.**

- **Making sure that appropriate UDBE utilization plans have been submitted, reviewed, and approved.** UDBE compliance staff will review original UDBE utilization plans and the monitor the continued utilization of UDBE firms. In addition, site/field monitoring staff will notify the UDBE Compliance Manager of all contractors, suppliers, and consultants providing service, on a routine basis or upon request, to facilitate complete capture of all contract participation.

- **In the event projected UDBE firms are denied certification, contract compliance staff will make sure that appropriate requests for replacement/substitution are secured.** California Design Builders Team staff will routinely review, update, and approve all modifications to UDBE utilization plans. The UDBE Compliance Manager will review UDBE participation opportunities as a result of all change orders or modifications to contracts and evaluate their impact on the UDBE utilization plan; this information will be relayed to the appropriate parties to make sure that we are aware of the status of UDBE firms participating on contracts.

- **Making sure that appropriate periodic UDBE progress reports have been submitted and reviewed and that payments to UDBEs have been verified and approved.** The California Design Builders Team will make sure that periodic UDBE progress reports are submitted by service firms, contractors, and suppliers, as required. Such reports will be reviewed on a monthly basis to make sure that UDBE firms are being meaningfully employed in a manner that is consistent with the submitted UDBE utilization plan. Site/field monitoring staff will take direction from the UDBE Compliance Manager to facilitate the timely submission of all forms. The California Design Builders Team will review the periodic reports to make sure that UDBEs are performing on the Project and are receiving payment for their services. The UDBE Compliance Manager will prepare and distribute communication procedures and reports to make sure that the Team members are aware of the status of UDBE firms participating on specific contracts.

- **Implementing corrective actions as required to maintain compliance.** The UDBE Compliance Manager will implement corrective actions, as required, to make sure that all interested parties are aware of the status of firms participating on contracts. These actions will be reviewed with the appropriate California Design Builders Team members.
9  APPENDIX C

Oregon Department of Transportation Record of Past Diversity Performance in Workforce & Small Business Utilization – Form WD

**FORM WD**

**RECORD OF PAST DIVERSITY PERFORMANCE IN**

**WORKFORCE & SMALL BUSINESS UTILIZATION**

Project Name: _____

Key Number: _____

Name of Proposer:

Firm Name:

Role (check as applicable):  Principal Participant  [ ]  Designer  [ ]

1. Workforce Past Performance

a. Provide the workforce diversity achievement information requested below for construction projects completed within the last [Insert number of years] years where the Entity was the prime contractor.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Minority Goal (%), if applicable</th>
<th>Minority Participation Achieved (%)</th>
<th>Year Completed</th>
<th>Current Owner Contact (Name, Phone and Fax No.)</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
b. For any project where the workforce diversity goal, if applicable, was not achieved, attach a maximum ½ page explanation.

Has the Entity in the past entered into a corrective action plan (CAP) with ODOT, WSDOT or any other DOT? If yes, attach a maximum ½ page explanation.

YES ☐ NO ☐

2. **Small Business Utilization Past Performance**

a. Provide the small business utilization achievement information requested below for construction projects completed within the last *[insert number of years]* years where the Entity was the prime contractor.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>DBE Goal (%), if applicable</th>
<th>DBE Participation Achieved (%)</th>
<th>Year Completed</th>
<th>Current Owner Contact (Name, Phone and Fax No.)</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Project Name</td>
<td>MBE, WBE other Small Business Goal (%), if applicable</td>
<td>MBE, WBE other Small Business Participation Achieved (%)</td>
<td>Year Completed</td>
<td>Current Owner Contact (Name, Phone and Fax No.)</td>
</tr>
<tr>
<td>--------------</td>
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</tbody>
</table>

b. For any project where the small business diversity goal, if applicable, was not achieved, attach a maximum ½ page explanation.

Add additional sheets if necessary.
10 APPENDIX D

Project Meeting Presentation Slides
Study Approach

- Literature Review & Synthesis
  - DBE regulations
  - Alternative project delivery methods
  - Problems with DBE Implementation
- National Survey
  - 52 Agencies (26 responded, 50% response rate)
  - 166 Contacts (38 respondents, 23% response rate)
  - 68% of respondents (Office of Civil Rights/DBE or construction)
- Case Studies
  - Oregon, Colorado, California, Utah, Virginia, Minnesota
GDOT DBE Challenges & Recommendations

1. How to Identify & Communicate Pre-Award Opportunities
   1.1 Develop interactive web-based database
   1.2 Enhance communication between DBE staff & project planners
   1.3 Place DBE-relevant information on project website

2. How to Diversify DBE Opportunities
   2.1 Set sub goals in contracts
   2.2 Build DBE capacity
   2.3 Encourage unbundling of work packages in DB manual

3. How to Achieve Desired Behavior to Attain Program Goals
   3.1 Ensure compliance & monitoring
   3.2 Use explicit language in project documents

---

1. Identifying & Communicating Pre-Award Opportunities
   1.1 Develop Interactive Web-Based Database
      a. DBE directory searchable by:
         i. Work type
         ii. NAICS code
         iii. Company name
         iv. Owner name
      b. Location-based search (optional)
      c. Bid request capability with option for bid submittals

   1.2 Enhance Communication
      a. Binding language in contract documents
         i. Type of comm.
         ii. Timing of comm.
         iii. Clear roles and responsibilities

   1.3 Place DBE-relevant information on project website
      a. Info. for critical DB staff responsible for DBE participation
      b. Bidders/proposers (pre-)qualification criteria
      c. Assistance to SS resources

2. Diversifying DBE Opportunities
   2.1 Set Sub Goals
      Set sub goals for specific categories based on agency need. E.g.:
      a. Work type, i.e., Professional vs. construction services
      b. Type of group i.e. WBE vs MBE

   2.2 Build Capacity
      a. Identify and articulate areas of overconcentration and deficiency
      b. Tailor SS programs to target articulated areas with historically low DBE participation

   2.3 Encourage Unbundling of Work Packages
      a. Encourage contractors/primes to unbundle work packages
      b. Require or encourage primes to subcontract portions of work they might otherwise perform themselves

3. Achieving Desired Behavior to Attain Program Goals
   3.1 Ensure Compliance & Monitoring
      a. Adopt a compliance & monitoring tool
      b. Enhance traditional methods of monitoring

   3.2 Use Explicit Language in Documents
      a. Include section for DBE program requirements/considerations
Challenge 1.
How to Identify & Communicate Pre-Award Opportunities

1.1 Develop Interactive Web-Based Database

Recommended functionality

a. A DBE directory searchable by the following:
   i. Work type
   ii. NAICS code,
   iii. Company name
   iv. Owner name
   v. Location-based search (optional)

b. A bid request platform with option for bid submittals
1.1 Develop Interactive Web-Based Database

- Example 1. Montana Online DBE Directory
  - Updated daily
  - Searchable by:
    - Work Type
    - Business Name
    - NAICS Code
    - Owner Name

- Example 2. Montana DOT DBE Quote Request
1.1 Develop Interactive Web-Based Database

• Example 3. Montana DOT Quote Request

Prime contractors solicit bids by entering:
- Project Number
- Project Title
- Letting Date
- Project Location
- Company Name
- Funding Agency
- Type of Work Needed
- Date/Time Needed
- Etc.

1.2 Enhance Communication between Project Planners & DBE Staff

• Strategy → Include an explicit section on DBE considerations in DB manual

- Missouri
- Montana
- NY State
- Oregon
- Texas
- Virginia

Agencies with specific guidelines/manuals for the utilization of DBE in DB or P3 projects
1.2 Enhance Communication between Project Planners & DBE Staff


5.3.1 DBE Communication

1. On federally funded projects, DBE firms should be notified very early in the procurement process. At a minimum, the DBP will notify the OCR when:
   a. Any early design-build team communications are to take place (see Section 3.9).
   b. A pre-RFP meeting has been planned for a project.
   c. A RFP is advertised for a project.
   d. A RFP is advertised.

2. Prior to the RFP being released, the PM will contact the OCR to schedule a DBE Meet and Great:
   a. OCR and the PM will mutually agree upon the time and place for the meeting. The meeting should be held one to three weeks after the RFP is issued.
   b. OCR will arrange for the room and contact the DBE firms.
   c. The PM will contact all short-listed design-build teams and invite the FWA.
1.2 Enhance Communication between Project Planners & DBE Staff


“The Office of Civil Rights (OCR) must be consulted early in the process to create the goals for the Project and on an on-going basis during the Project for Oversight and monitoring of the Design-builder’s MBE/WBE or DBE program.” (pg. 89)

Early notification of DB project provides greater opportunity to ensure steps are followed properly.

- Example 6. City of Davenport Recommendation

“Revise the City’s procurement procedures to include a requirement that the DBE Program Manager be informed in writing and receive a copy of any proposed contract or procurement for construction, professional services, and general services within three business days of the release of the RFP, RFQ, or RFB.”
1.2 Enhance Communication between Project Planners & DBE Staff


| DBE Coordination | Allow design-build teams and DBE firms to meet before the formation of teams
| Procurement Determination | Assess the feasibility of different procurements (e.g., design-build, design-bid-build) for a specific project
| Contractibility Reviews | Assess the feasibility of project aspects prior to advertising
| Pre-RFP Meetings | Obtain input into the procurement and RFP requirements
| Draft RFQs | Solicit feedback on draft RFQs

| DBE Coordination | Allow design-build teams and DBE firms to meet and form relationships
| Contact information for critical DB staff responsible for DBE participation
| Bidders/proposers (pre-) qualification criteria
| Access to assistance resources (e.g., loan programs, bonding assistance, etc.)
| Profiles of current DBEs working on project and how they become involved
| Other links to sites of interest

1.3 Place DBE-Relevant Information on Project Website

- Example 8. Caltrans Project Website

Contact information for critical DB staff responsible for DBE participation
- Bidders/proposers (pre-) qualification criteria
- Access to assistance resources (e.g., loan programs, bonding assistance, etc.)
- Profiles of current DBEs working on project and how they become involved
- Other links to sites of interest
2. How to Diversify DBE Opportunities

2.1 Set sub goals

2.2 Build capacity of DBEs

2.3 Unbundle large work packages where applicable
2.1 Set Sub Goals

Case Study DOTs Goal Setting approach for DB or P3 projects

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Single Goal</th>
<th>Separate Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caltrans</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Colorado</td>
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</tbody>
</table>

* Decided to set separate goals in response to concern among professional design DBEs about limited work on DB projects

---

2.1 Set Sub Goals

- Categorize sub goals according to:
  - Work type -
    - Design/professional vs. construction services
  - Type of disadvantaged group -
    - WBE vs. MBE
    - Specific minorities with low participation

<table>
<thead>
<tr>
<th>PROFESSIONAL/VENDOR SERVICES</th>
<th>CONSTRUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design (bridge, roadway, landscape, drainage, etc.)</td>
<td>Supply of oil for asphalt</td>
</tr>
<tr>
<td>Supplemental geotechnical investigations</td>
<td>Dowel baskets supply</td>
</tr>
<tr>
<td>Surveying &amp; other preliminary engineering</td>
<td>Erosion control</td>
</tr>
<tr>
<td>Supply of office furniture</td>
<td>Potholing (vacuum truck)</td>
</tr>
<tr>
<td>Quality control</td>
<td>Trucking</td>
</tr>
<tr>
<td>Permitting</td>
<td>Clearing &amp; grubbing</td>
</tr>
<tr>
<td>Environmental compliance activities</td>
<td>Supply of electrical material</td>
</tr>
<tr>
<td>Utility coordination</td>
<td>Supply of drainage materials</td>
</tr>
<tr>
<td>Site security</td>
<td>Equipment rental</td>
</tr>
<tr>
<td>Equipment rental</td>
<td>Minor concrete</td>
</tr>
<tr>
<td>Janitorial services</td>
<td>Traffic control</td>
</tr>
</tbody>
</table>

---

Diversifying DBE Opportunities
2.1 Set Sub Goals

- Example 9. NYSDOT DB Manual

  “The goals for the Project should be a combination of a consultant goal for the design portion, and a construction goal for the construction portion.” pg.88

- Example 10. Missouri RFQ

  Disadvantaged Business Enterprises

  A Disadvantaged Business Enterprise (DBE) is a firm owned and operated by socially and economically disadvantage individuals, and certified by Missouri Regional Certification Committee (MRCC). The anticipated DBE goals for the project are:

  - 12% construction activities
  - 16% professional services

  In an effort to ensure a healthy contracting environment for DBE contractors and consultants, a DBE can only be exclusive with one Submitter if they meet the requirements of a Major Participant as defined in Section 5.1, or with written
2.1 Set Sub Goals

- Example 10. Missouri RFQ

Part 1 – Teamwork and Quality Approach (50 Points)

Submital Requirements:

- Form DD-101: Major Participant Information. One form is to be completed for each Major Participant, as described in Section 5.1.
- Submit an executive summary not to exceed three (3) pages covering the Submitter’s team and quality approach in the following areas:
  - Organizational Makeup and Structure: Provide the organizational style of the team and indicate how the makeup and structure increase the Submitter’s ability to meet or exceed the goals. An organizational chart is required.
  - Project Approach: Indicate Submitter’s approach and ability to coordinate with all parties of the project and identify any special issues or challenges that are likely to be encountered.
  - Quality Approach: Identify the plan for developing, implementing, and maintaining a Quality Management Program.

- DBE Utilization: Describe how the Submitter intends to utilize DBE’s to meet or exceed the DBE participation goals of 12% construction activities and 16% professional services, and provide examples of past performance.
- Safety Approach: Identify the Submitter’s approach for implementing and

2.1 Set Sub Goals

- Example 11. DelDOT RFQ

RFQ lists overall goal, but specifies two categories

7.6 DBE PARTICIPATION GOAL
A DBE participation goal of Seven percent (7%) has been established for this Project. The Design-Build is required to make good faith efforts to involve Department Certified DBE professional service and construction firms in the prosecution of the Work.
2.1 Set Sub Goals

- Example 12. Kansas DOT RFP

A single goal for minorities and a separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally, the contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

2.2 Build DBE Capacity

a. Identify and articulate areas of overconcentration or deficiency

b. Tailor SS² programs to target identified areas with historically low DBE participation, e.g.:
   a. Business development & on the job training to improve technical & management skills
   b. Simplify bonding process and provide assistance with bond guarantees for DBEs in low participation work areas

² Supportive services
2.3 Encourage Unbundling of Work Packages

- Encourage contractors to unbundle work packages
  - Colorado DOT Saw an introduction of new firms in their US 285 Design-Build project by using this strategy

- Require or encourage primes to subcontract portions of work they might otherwise perform themselves (49CFR26 in NCHRP 481)

Challenge 3.
How to Achieve Desired Behavior to Attain Program Goals
Goal Setting Method

• General FHWA Base Formula

\[
\text{Step One Base Figure} = \frac{\text{Ready, willing, and able DBEs}}{\text{All firms ready, willing, and able (including DBEs and non-DBEs)}}
\]

\[
\frac{44 \text{ DBEs in heavy construction} + 14 \text{ DBEs in trucking}}{300 \text{ firms in heavy construction} + 150 \text{ firms in trucking}} = \frac{58}{450} = 12.8\%
\]

• Other approved methods e.g. VDOT

3.1 Ensure Compliance & Monitoring

• To ensure attainment of DBE goals
• To prevent fraudulent activities
• To ensure full participation of eligible DBE firms
• To ensure proper diversification of DBE firms from contract to contract
3.1 Ensure Compliance & Monitoring

- Be aware of DBE Fraud “Red Flag” Indicators:
  - DBE owner lacks background, expertise, or equipment to perform subcontract work
  - Employees shuttle back & forth between prime contractor & minority-owned business payrolls
  - Business names on equipment and vehicles are covered with paint or magnetic signs
  - Prime contractor always uses the same DBE
  - Etc.

3.1.1 Adopt Compliance & Monitoring Tool

- Business Diversity Management Software capabilities include:
  - Contract & concession compliance
  - Certification processing & online application
  - Goal setting & bid tracking
  - Labor compliance & prevailing wage
  - Outreach management
  - Vendor management
3.1.1 Adopt Compliance & Monitoring Tool

- Example 13. Florida DOT Equal Opportunity Compliance system
  - Web based application
  - DBE/MBE reporting & compliance
  - Used by FDOT prime contractors/consultants
    - Bidders opportunity list
    - DBE commitments
    - DBE/MBE sub payments
  - Used by FDOT staff to monitor submission and ensure compliance
3.1.1 Adopt Compliance & Monitoring Tool

EOC Reports & Statistical data

ATTAINING PROGRAM GOALS
3.1.1 Adopt Compliance & Monitoring Tool
3.1.1 Adopt Compliance & Monitoring Tool

Benefits

- Easy access to information when needed
- Diagnostics for area of overconcentration and deficiency
- Provides transparency
- Ensures monitoring of data submissions
- Single point of entry for contractors & consultants (ensures conformity)
- Checks & balances
3.1.2 Compliance & Monitoring: Enhance traditional methods of monitoring

- Site visits
- Interviews of personnel on job site
- Verification of certified payroll
- Review of company policies
- Evaluation of “good faith efforts”
- Verification of DBE certifications
- Review of cancelled checks paid to subcontractors, sub-consultants and suppliers

3.2 Use Explicit Language in Documentation

- Include section in manuals & contract documents for DBE program requirements/considerations, e.g., DB manual, RFP/RFQ, DBE program plan.
  a. This section must clearly state roles & responsibilities of:
     i. DBE program staff
     ii. Project planners
     iii. Contractor DBE compliance manager/contractor representative
  b. Clearly state time provisions for DBE deliverables e.g., reports, monitoring activities, payments, etc.
3.2 Use Explicit Language in Documentation

- Caltrans contract document Exhibit E for Devore DB project

  Specific wording for reporting mechanisms on:
  - Performance plan requirement
  - Summary of subcontracts awarded and paid report (bidders list)
  - Quarterly review/DBE work payment schedule
  - DBE final report, etc.

Summary

1. How to Identify & Communicate Pre-Award Opportunities
   1.1 Develop interactive web-based database
   1.2 Enhance communication between DBE staff & project planners
   1.3 Place DBE-relevant information on project website

2. How to Diversify DBE Opportunities
   2.1 Set sub goals in contracts
   2.2 Build DBE capacity
   2.3 Encourage unbundling of work packages in DB manual

3. How to Achieve Desired Behavior to Attain Program Goals
   3.1 Ensure compliance & monitoring
   3.2 Use explicit language in project documents

EXHIBIT E – DISADVANTAGED BUSINESS ENTERPRISE (DBE) SPECIAL PROVISIONS FOR DESIGN-BUILD PROJECTS
Thank you. Questions?