

# VIRGINIA DBE GOAL SETTING METHODOLOGY

## 2009-2010 DRAFT

DBE regulations (49 CFR 26.45) require the establishment of an overall goal based on demonstrable evidence of the availability of ready, willing, and able DBEs relative to all businesses who are ready, willing, and able to participate on DOT assisted contracts. This process begins by determining a base figure for the relative availability of DBEs and then, based on evidence, determining whether the base figure requires adjustments to arrive at the overall goal. VDOT's goal setting methodology complies with these requirements.

### Step 1-Base Figure

The Virginia Department of Transportation (VDOT) considered the methods recommended in 26.45 (c) in establishing its base figure:

#### Bidder's List

#### Disparity Studies

#### Another DOT Recipient

#### DBE Directory and Census Bureau Data

Having given consideration to the methods suggested above, VDOT decided that none of these approaches could be used to determine the base figure. Instead, the same alternative method approved by FHWA for previous years was used to determine the base figure for the overall goal. This methodology is based on prequalification and the consideration of two (2) measures: 1) prequalification; whereby the ratio of prequalified DBEs compared to all prequalified contractors is determined, and 2) work capacity values; whereby the ratio of the total dollar amount of outstanding work that the prequalified contractor is allowed to have under construction at any given time is determined. Each measure is given equal consideration in determining the base figure. However, the recommendations of a disparity study, Virginia Department of Transportation (VDOT) Utilization and Availability Study, Revised July 19, 2004, will be included in step 2, the adjustment section of this document.

In Virginia, all contractors must be prequalified in order to do highway construction work. By becoming prequalified, a contractor is recognized as being ready, willing, and able to perform work on VDOT contracts. This system has been in place since the nineteen sixties. It considers such things as: financial ability, equipment availability, work experience, and size of organization of each contractor; and whether or not they are prime or sub-contractors, DBEs or non-DBEs. The evaluation of this information allows VDOT to determine a contractor's prequalification status and its work capacity value, which establishes the total amount of outstanding work that the contractor desires to have under construction at any given time.

During Fiscal Year 2005-2006, prequalification limits were discontinued. In their place, VDOT set forth the policy that permitted all prequalified contractors, including DBEs, to submit bids on projects, provided the firm could secure adequate bonds for the project for which the bid was being submitted. Contractors are now required to declare the actual work that their firm can take on at any one time. These work capacity values, expressed in dollars, are used in determining the Step 1 calculation.

VDOT decided that both the prequalification list and work capacity values provided useful but extreme parameters in determining the Step 1 calculation. Although the prequalification file is dynamic, our records in July 1, 2009 showed that of the 802 firms that were prequalified at this time, 103 of these firms were also certified as DBEs. The calculations of the ratio of firms are as follows:

$$\text{PREQUALIFICATION:} \quad \frac{103 \text{ (DBEs)}}{802 \text{ (ALL FIRMS)}} = 12.84\%$$

$$\text{WORK CAPACITY VALUE:} \quad \frac{\$586,482,000 \text{ (DBEs)}}{\$62,038,114,499 \text{ (ALL CONTRACTORS)}} = 0.95\%$$

In evaluating these two measures, VDOT determined that each of these measures was deficient in determining the actual relative availability of ready, willing, and able DBEs.

The percentage obtained by calculating the ratio of DBE firms to all firms does not appear to be reasonable, since it treats all contractors, regardless of size, as being equally ready, willing, and able. This method lacks recognition of the varying financial assets and the ability of firms to commit resources to the completion of the program.

The percentage based on the work capacity value reflects the actual business practices of contractors. This limit represents the total amount of work that the contractors have determined that a particular firm can perform. While this measure provides useful information about total workload limits of firms on the prequalification list, it ignores two important factors: (1) actual workload needs of VDOT, and (2) how much of its total capacity each firm is ready, willing, and able to provide to VDOT.

The final consideration, i.e., how to weight the relative importance of these measures, is difficult to determine. We have not been able to quantify this weighting factor. Therefore, we are giving equal weight to each of the measures, since both measures are required to be utilized collectively to accurately determine the relative availability of DBEs in the Virginia market.

$$\text{BASE FIGURE} = (0.1284 + 0.0095) / 2 = 0.0690 \text{ or } 6.90\%$$

## **Step 2 - Adjustment**

Several additional factors were considered for adjusting the base figure. These factors were not utilized because of a variety of issues. Included below are the factors and difficulty in quantifying them for use in this analysis.

1. Participation of truckers, suppliers, manufacturers, and consultants was considered but not utilized in the development of the base figure. This information has not been collected in a distinct and separate database. Therefore, it is not possible at this time to quantify their effect on the achievements.
2. The commitment of resources to the State program is known to dilute the availability of ready, willing, and able firms to be utilized in the Federal program. The effect cannot be quantified.

The following factors were considered for adjusting the base figure and were determined to provide greater information as to the capacity for DBE firm use.

1. Loss of DBE firm participation due to the 1999 revised certification guidelines, i.e., \$750,000 personal net worth cap, and firms graduating from the program are considered by the Department's prequalification system, and have been taken into account in the calculations of Step 1.
2. The Department has recorded contractors' commitments made at the time of the award of the contract. These records show that historically there is not a straight-line relationship between the value of the Federal program and the value of the DBE commitment. The availability of non-committed resources helps to explain the reasons for a higher percentage of participation in lower program years and higher dollar value participation in higher program years.
3. The disparity study Virginia Department of Transportation (VDOT) Utilization and Availability Study, Revised July 19, 2004, recommended that VDOT take aggressive steps in the program to (1) increase utilization and (2) increase availability of DBEs. While the study's emphasis was placed on the State funded M/WBE program, several recommendations provided steps that would be necessary to begin overall improvements in both the federal and state programs, but the key need is commitment at all levels of Virginia's state government.

The Department has recorded data from the past 6.50 years with the following commitments:

Fiscal Year(s)	Federal Dollars(*)	DBE Commitments (\$)	Percentage
2002-2003	\$253,678,323	\$42,242,819	16.65
2003-2004	\$426,110,812	\$68,489,294	16.07
2004-2005	\$351,059,336	\$41,616,226	11.85
2005-2006	\$268,780,231	\$27,694,670	10.30
2006-2007	\$503,282,262	\$29,300,716	5.82
2007-2008	\$622,919,308	\$50,974,163	8.18
2008-Jun. 09	\$166,970,376	\$12,608,295	7.55
<b>Average</b>	<b>\$414,297,023</b>	<b>\$42,034,797</b>	<b>10.15</b>

From the above analysis, we determined that the historical average DBE commitment was 10.15% of the Federal program. This exceeds the base figure calculated in Step 1 by 3.25%.

### 3. Potential Capacity Increases.

As of July 1, 2009 there are 926 firms certified with the Department that do not require prequalification for the services they provide. This pool of resources is used in the program, and their accomplishments should be quantified. We expect that, based on historical data from the past 6.50 years, 25 of these firms (2.63%) either are or should be expected to become active in our program. Using these numbers, the base number calculation follows:

$$\begin{aligned}
 \text{PREQUALIFICATION:} & \quad \frac{103(\text{DBEs}) + 926(0.0263) \text{ (POTENTIAL RESOURCES)}}{802 \text{ (ALL FIRMS)}} = 15.96\% \\
 \text{WORK CAPACITY VALUE:} & \quad \frac{\$586,482,000 \text{ (DBEs)}}{\$62,038,114,499 \text{ (ALL CONTRACTORS)}} = 0.95\% \\
 & \quad (0.1596 + 0.0095) / 2 = 8.46\%
 \end{aligned}$$

This exceeds the base figure calculated in Step 1 by 1.56%.

### 4. Current Program's Decreases.

The Federal program for fiscal year 2009-2010 is currently projected to be \$3,854,111,121, as provided by VDOT's Financial Planning Division. This includes ALL Federal funds. Of this, approximately \$919,774,289 will be committed to construction projects. The Department has recognized that the relationship of DBE commitments to the size of the program is not a straight-line relationship. Because of this, we performed a regression analysis on the past 6.50 years' achievements. This analysis yielded a projected expectation of \$78,364,769 to be accomplished with DBE firms. This is based on a \$919,774,289 construction program. The value derived from this statistical review of the past achievements is 15.89. (See attachment.) This would result in a change in the projection by 0.06%.

### Adjustment factors (See Step 2- Adjustment)

- Average percent of past commitments (Step 2, Number 2) 3.25%
- Increased capacity through specialty means (Step 2, Number 3) 1.56%

- Current program decreases (regression analysis) (Step 2, Number 4) 0.06%

The average of these factors = 1.62%

The Department has considered the adjustment factors above, and determined that an average of these factors gives a more realistic expectation of the DBE participation goals for the fiscal year 2009-2010. The overall adjustment factor of the above three (3) adjustments = 1.62%.

**OVERALL GOAL FOR FY 2009-10 8.52%**

Base Figure + Adjustment Factor = FY 2009-10 GOAL

6.90% + (3.25 + 1.56 + 0.06) % / 3 = 8.52%

**Race Conscious / Race Neutral Breakout**

The race neutral percentage, 0.64471%, is calculated from the data exhibited in the following table:

The Race Conscious /Race Neutral Breakout is as follows:

Race Conscious = 7.86%

Race Neutral = 0.66471%

FEDERAL-AID CONTRACTS  
FY 2002-2003 THRU JUNE 2009

FISCAL YEARS	TOTAL FHWA CONTRACT DOLLARS	DBE GOAL SET DOLLARS	DBE GOAL SET %	TOTAL COMMIT DOLLARS	TOTAL COMMIT %	R/C GOALS SET DOLLARS	R/C GOALS SET %	R/C COMMIT DOLLARS	R/C COMMIT %	R/N COMMIT DOLLARS	R/N COMMIT %
2002-2003	\$253,678,323	\$24,768,075	9.76	\$42,242,819	16.65	\$24,768,075	9.76	\$42,242,819	16.65	\$0	0.00000
2003-2004	\$426,110,812	\$63,460,214	14.89	\$68,489,294	16.07	\$63,460,214	14.89	\$68,385,564	16.05	\$103,730	0.02434
2004-2005	\$351,059,336	\$39,769,745	11.33	\$41,616,226	11.85	\$39,769,745	11.33	\$39,769,745	11.33	\$1,687,939	0.48081
2005-2006	\$268,780,231	\$26,328,784	9.80	\$27,694,670	10.30	\$26,328,784	9.80	\$26,328,784	9.80	\$1,365,886	0.50818
2006-2007	\$503,282,262	\$27,116,298	5.39	\$29,300,716	5.82	\$27,116,298	5.39	\$27,116,298	5.39	\$2,184,418	0.43403
2007-2008	\$622,919,308	\$43,007,957	6.90	\$50,974,163	8.18	\$43,007,957	6.90	\$43,007,957	6.90	\$7,966,205	1.277885
2008-2009 Oct-June	\$166,970,376	\$ 8,681,781	5.20	\$13,608,295	7.55	\$ 8,681,781	5.20	\$ 8,681,781	5.20	\$3,926,514	0.02352
<b>AVG</b>	<b>\$398,892,407</b>	<b>\$37,202,252</b>	<b>9.33</b>	<b>\$41,988,644</b>	<b>10.53</b>	<b>\$37,202,252</b>	<b>9.33</b>	<b>\$37,774,607</b>	<b>9.47</b>	<b>\$2,651,491</b>	<b>0.66471</b>

It should be noted that the average of our race-neutral DBE participation in the Federal program is 0.66471%, as indicated in the data above. As a result, we must rely on race-conscious goals and participation to achieve our overall statewide DBE goal.

**ATTACHMENT**

**STATEWIDE DBE GOALS FISCAL YEAR 2009-2010  
CURRENT PROGRAM'S DECREASES  
REGRESSION ANALYSIS**

VALUES EXPRESSED IN MILLIONS

$$X = 253.7 + 426.1 + 351.1 + 268.8 + 503.3 + 622.9 + 167.0$$

$$Y = 42.2 + 68.5 + 41.6 + 27.7 + 29.3 + 51.0 + 12.6$$

$$\text{SUM OF } X = 2,582.9$$

$$\text{SUM OF } Y = 272.9$$

$$X \text{ TIMES } X = 64,364 + 181,561 + 123,271 + 72,253 + 253,311 + 388,004 + 27,889$$

$$\text{SUM OF } X \text{ TIMES } X = 1,110,653$$

$$X \text{ TIMES } Y = 10,706 + 29,188 + 14,606 + 7,446 + 14,747 + 31,768 + 2,104$$

$$\text{SUM OF } X \text{ TIMES } Y = 110,565$$

$$Y \text{ TIMES } Y = 1,781 + 4,692 + 1,731 + 767 + 858 + 2,601 + 159$$

$$\text{SUM OF } Y \text{ TIMES } Y = 12,589$$

$$\text{MEAN OF } X = 368.99$$

$$\text{MEAN OF } Y = 38.99$$

THE LS REGRESSION LINE =

$$\begin{aligned} & \frac{38.99 - \frac{110 - (2,582.9)(272.9) / 7}{1,110,653 - (2,582.9)(2,582.9) / 7} (368.99) + \frac{110,565 - (2,582.9)(272.9) / 7}{1,110,653 - (2,582.9)(2,582.9) / 7} X}{=} \\ & = 15.99 + 0.0626X \end{aligned}$$

STATISTICAL REVIEW OF PAST ACHIEVEMENTS = 15.99

CHANGE IN PROJECTION = 0.06%