MassDOT calculated the Transit Division goal utilizing a preliminary budget to identify federal-aid service and supply contracts on USDOT-assisted projects to be performed. To determine the relative availability of DBE firms pertinent to each procurement category, NAICS statistics from the Department of Commerce and Census Bureau were also utilized. The information below, illustrates the Transit Division's proposed DBE goal for the Fiscal Year 2019 through 2021 period:

Step 1: Determination of Base Figure for Relative Availability of DBEs

The DBE goal is derived from an examination of census availability within the relevant geographic area (the Commonwealth of Massachusetts, Suffolk County, and metropolitan areas as defined by the most recent, Economic Census), and the current SDO directory. This geographic area was selected due to evidence the Office receives through its interaction with DBEs during public meetings and other business venues that DBEs have demonstrated a willingness to travel the breadth of the Commonwealth in pursuit of prospective work.

The Office of Diversity and Civil Rights consulted with the Rail and Transit Division, the MassDOT Planning Department, and reviewed TRAMs. We obtained a list of all upcoming FTA-assisted grants and projects that are expected to be awarded during the next three federal fiscal years to begin the process of establishing an overall goal for DBE participation. Grant managers were also consulted for additional project details specific to each FTA-assisted grant. The magnitude of anticipated contracting opportunities under each grant was determined and prospective procurement opportunities expected to occur under each grant were identified by NAICS code. Subrecipients under each grant were also identified.

Base Figure of Relative Availability

The base level of DBE availability was calculated through an analysis of businesses with employees in the most recent Massachusetts Economic Census available. This data is derived from the 2015 Economic Census available through the U.S. Census Bureau's website and the Massachusetts Unified Certification Program database of certified DBEs.

Relative Availability of DBEs

The relative availability of DBEs was determined by calculating the percentage of Ready, willing, and able (RWA) DBE firms certified in Massachusetts of all firms for each type of work within the state. The numerator is the number of businesses certified as DBEs by the Massachusetts Unified Certification Program. The denominator is the number of all firms in the Massachusetts Economic Census. This data is derived from the U.S. Census Bureau 2015 Massachusetts Economic Census and the Massachusetts Unified Certification Program database.

Weighted DBE Availability for each FTA-Assisted Grant

	Grant	Amount of DOT funds on Grant:	% of total DOT funds (weight)
1	5310	\$1,224,359.92	0.7465
2	5311	\$296,370.00	0.1807
3	5311(f)	\$0.00	0.0000
4	5311(b)	\$119,333.00	0.0727
5	5311	\$0.00	0.0000
6	5339	\$0.00	0.0000
7	5303	\$0.00	0.0000
8	5304	\$0.00	0.0000
9			
	Total FTA-Assis	tod Cront Funds	\$1,640,062.00
	Total FTA-ASSIS	\$1,040,002.00	

	Grant	Number of DBEs available to perform this work	Number of all firms available (including DBEs)	Relative Availability		
1	5310	228	4118	0.0554		
2	5311	339	18693	0.0181		
3	5311(f)	0	0			
4	5311(b)	118	1659	0.0711	1	
5	5311	0	0			
6	5339	0	0			
7	5303	0	0		1	
8	5304	0	0			
9						
	Combined Totals		685	24470	0.0280	Overall availability of DBEs

	Project	Weight	X	Availability	Weighted Base Figure
1	5310	0.7465	X	0.0554	0.0413
2	5311	0.1807	X	0.0181	0.0033
3	5311(f)	0.00000	X	0.00000	
4	5311(b)	0.0727	X	0.0711	0.0052
5	5311	0.00000	X	0.00000	
6	5339	0.00000	X	0.00000	
7	5303	0.00000	X	0.00000	
8	5304	0.00000	X	0.00000	
9					

Total	0.0498
Expressed	
as a %	
(*100)	4.98%
Rounded,	
Weighted	
Base	
Figure:	5.0%

Step 1 Weighted Base Figure of availability 5.0%

Step 2: Examination of Other Evidence for Determination of Availability and Adjustments MassDOT reviewed all available relevant evidence to determine what adjustments, if any, were needed to apply to the base figure in order to arrive at the overall annual DBE goal. Using data collected regarding availability of ready, willing and able DBE firms the goal is set at the level of DBE participation expected absent the effects of discrimination.

MassDOT examined the current capacity of DBEs to perform work on FTA-assisted contracts based on the value of work performed by DBEs in the previous three (3) complete federal fiscal years. The chart below shows the total past DBE participation relative to total value of commitments over the three-year period.

FTA - Year Data ¹	FY2015	FY2016	FY2017	3 Year Total
Total Value of commitments	\$23,954,616	\$2,396,343	\$2,552,072	\$28,903,031
Total DBE Participation	\$1,799,948	\$470,090	\$7,762	\$2,277,800
DBE Race/Gender Neutral	\$83,998	\$131,587	\$0	\$215,585
DBE Race/Gender Conscious	\$1,715,950	\$338,503	\$7,762	\$2,062,215
	7.2%	19.6%	0.3%	7.2% median

This period included construction contracting opportunities in Springfield, MA. There are no similar projects in the upcoming triennial cycle, so we have determined we will not use past participation as a factor in adjusting the base figure to arrive at the adjusted goal.

MassDOT sought evidence in related fields within its jurisdiction that could affect opportunities for DBEs to form, grow, and compete, such as statistical disparities for DBEs to obtain finance, bonding and insurance. Based on a the report "Race, Sex, and Business Enterprise: Evidence from the Commonwealth of Massachusetts prepared for Division of Capital Asset Management in 2010, it was demonstrated that there is a lesser availability of firms owned by minorities and women as a result of discrimination practiced by the commercial markets. Data from the Current Population Survey (CPS) and the Five Percent Public Use Microdata Samples (PUMS) has shown that annual wages for Blacks were almost 30% lower than for Whites males despite similar in geographic location, industry, age and education. This large disparity is also reflected when the analysis is restricted to the construction related industry sectors and the access to capital and banking services.

MassDOT also reviewed economic studies and statistical data that revealed the need for capital and the sales receipts value and employment status of a business. Firms with employees and large firms need more capital to finance capital improvements of the business than small or non-employer firms regardless of ownership group. (*Characteristics of Minority Businesses and*

¹ Note: This data was obtained from Mass DOT's Semi-Annual Uniform Reports of DBEA wards or Commitments and Payments. This data included all projects including the Springfield construction project.

Entrepreneurs: An Analysis to the 2002 Survey of Business Owners; US Department of Commerce, Minority Business Development Agency.) The specific factors that may have influenced the ability of minority firms to access to bank loans compared to similarly-sized majority firms were inconclusive. Similarly a January 2010 study (Disparities in Capital Access between Minority and Non-Minority-Owned Businesses: the Troubling Reality of Capital Limitations Faced by MBEs; US Department of Commerce, Minority Business Development Agency) indicated that not only were Minority-Owned firms more likely to lag behind in size compared to Majority-Owned firms, despite their faster growth, Minority-Owned Firms were less likely to successfully obtain capital. Further, Minority-Owned firms were also more likely to not apply for loans, more likely to be denied loans, consistently receive smaller loan amounts, and pay higher interest rates than Majority-Owned firms².

Based on the review of these reports and available data, MassDOT found no demonstrable and quantifiable evidence that logically or directly impacts any significant areas affecting DBE participation. Therefore, MassDOT seeks no further adjustments and has set an overall goal of 5.0%.

Determination of Race Conscious vs. Race Neutral Split

MassDOT reviewed DBE attainment during the last triennial period minus the Springfield construction project and determined that our median of race neutral participation without construction activity was 4.1%.

FTA - Year Data ³	FY2015	FY2016	FY2017	3 Year Total
Total Value of commitments	\$2,300,366	\$2,396,343	\$2,552,072	\$7,248,781
DBE Race/Gender Neutral	\$83,998	\$338,503	\$7,762	\$430,263
	3.7%	5.5%	0%	3.7% median

To meet the maximum feasible portion of the goal through race neutral measures per 49 CFR 26.51(a) and based upon availability of DBEs in the categories of work MassDOT intends to utilize during FFY19-FFY21, and the median of race neutral participation absent the Springfield construction project during the last three year cycle MassDOT anticipates meeting up to 3.7% of its overall goal through using race neutral measures. As these measures will be insufficient to satisfy the 5.0% overall goal we propose using race conscious methods to achieve the balance of the goal. Therefore we propose a race conscious goal of 1.3%.

² Approximately 50% of the certified DBEs in Massachusetts are minority-owned.
³ Note: This data was obtained from MassDOT's Semi-Annual Uniform Reports of DBE Awards or Commitments and Payments.

MassDOT will continue to regularly review DBE attainment through our inspection of DBE commitments, awards, and actual payments. If it appears unlikely that the overall goal will not be achieved race conscious measures may be added for the remainder of the year.

Description of the types of Race-Neutral measures implemented by MassDOT

MassDOT offers several types of race-neutral measures through the Small Business Resource Center to assist small businesses and businesses owned by disadvantaged individuals (DBEs). These technical services include information in obtaining bonding, matchmaking services for small businesses, development program and assistance in becoming pre-qualified to bid on MassDOT projects.

MassDOT will use the following Race-Neutral (RN) measures to increase DBE participation:

- Implementing a supportive services program to increase the growth and development of
 firms eligible to participate in federally-aided transportation contract as a DBE firm by
 providing general business development training paired with specific transportation
 construction technical assistance and other resources to increase the capacity of
 participating DBEs. MassDOT has designed a program to address the barriers facing
 certified DBEs that will provide general business development training paired with
 specific transportation technical assistance and other resources to increase the capacity of
 participating DBEs.
- Providing technical assistance and other services to DBEs, one on one and through consultants.
- Conducting periodic surveys and needs assessments to better determine DBE needs and identify barriers to participation
- Informing DBEs of specific contracting opportunities
- Providing a copy of the Invitation for Bids to DBEs upon request.
- Providing introductions to help DBEs, and other small businesses with access to prime contractors in an effort to develop working relationships
- Ensuring the inclusion of DBEs on mailing lists for bidders; ensuring the dissemination to bidders on prime contracts of lists of potential subcontractors;