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WASHINGTON, D.C. 20301-1500

MANPOWER AND  
RESERVE AFFAIRS

MEMORANDUM FOR CHAIR, DEPARTMENT ADVISORY COMMITTEE ON WOMEN  
IN THE SERVICES

SUBJECT: Request for Information Regarding the Department of Defense STARBASE  
Program

Per your Committee request, this memorandum provides a written response on information, outcomes, and impact of Department of Defense (DoD)/Service funded Public Affairs Community Relations and Marketing Programs that supports recruitment. Specifically, the Committee requests the following information for the DoD STARBASE program:

**a. Type of activity (including STEM engagement, fitness challenges, research, etc.):**

The DoD STARBASE program, authorized in 10 U.S.C. 2193b, exposes our nation's youth to the technological environments and positive civilian and military role models found on Active, Guard, and Reserve military bases and installations, nurture a winning network of collaborators, and build mutual loyalty within our communities, by providing 25 hours of hands-on instruction and activities that meet or exceed the National Standards. STARBASE is one of the Department's primary outreach tools as it continues to support and contribute to the Department's STEM Goals: Inspire youth and community engagement in STEM education and outreach in the K-12 domain by supporting and enhancing student and educator participation in DoD sponsored STEM events, and promote increased participation of underserved groups in STEM activities and education programs.

**b. Financial cost:**

In Fiscal Year (FY) 2019, the total program budget was \$30,000,000. The Office of the Assistant Secretary of Defense for Manpower & Reserve Affairs (OASD/M&RA) allocated \$28,219,681 to program operations. The remainder of the appropriation was used for assessment activities, staff development and training programs, and overall program design and development activities. In FY 2019, the median operating cost per location was \$350,870. Average cost per pupil was \$296. Several factors contribute to the cost variances, including geographic location, number of operational classrooms, type and number of outreach programs, salary scales, and number of employees. OASD/M&RA annually reviews each location's budget to maintain an equitable distribution of funds.

**c. Return on investment:**

The DoD STARBASE curriculum is designed to increase the students' involvement and interest in STEM activities, enhance their understanding of the role that STEM literacy plays in

their lives, strengthen potential for future careers, and make the pursuit of STEM activities more attractive and accessible. It also contains the presentation of accurate scientific information, which promotes the development of STEM skills, knowledge, and practices, thereby supporting the Federal goals of a learning investment.

In FY 2019, the DoD STARBASE program conducted 3,256 classes serving 1,343 schools in 450 school districts across the United States and Puerto Rico. During FY 2019, 81,062 students attended the 5-day program with an additional 18,682 students participating in supplemental programs during FY 2019. Since 1993, there have been 1,303,467 students served.

**d. Geographic coverage:**

DoD STARBASE operates in 69 locations in 33 States and Territories. Please see attached map of program locations.

**e. Percentage of women participants of the total population (in 2010 and 2015):**

While there are a few academies where the balance between females and males are over-represented by one gender or the other, the overwhelming majority is well-represented by both genders. In FY 2010, of the 64,380 students that participated in the DOD STARBASE program, 49% were female. In FY 2015, of the 62,071 students that participated in the DOD STARBASE program, 49% were female.

**f. Educational outcome for the students:**

In FY 2019, there was improved students' performance in physics, chemistry, and mathematics by 36%, 32%, and 19%, respectively. Additionally, there was an improved attitude about the military in 80% of students.

**g. Percentage of students who completed the program:**

Unless a student misses a class for illness or other reasons, or the participating school district makes a decision that prevents attendance, all participants complete the program.

**h. Program impacts on improving the recruitment of women:**

This STEM enhancement program, primarily for the 5<sup>th</sup> grade level, does not recruit for the military. The 2018-2019 DoD STARBASE program was successful in achieving its major goals as measured by the assessment of STEM related student attitudes and knowledge before and after attending the program. It produced measurable changes in students' positive attitudes toward science, technology, engineering, and mathematics. Those positive attitudes are likely to be helpful in encouraging learning about STEM topics throughout the students' academic careers.

My point of contact for this action is Mr. Michael O'Toole. He may be reached at michael.j.otoole.civ@mail.mil or at (703) 693-7493. Thank you.

Judd H. Lyons  
Deputy Assistant Secretary of Defense  
for Reserve Integration

Attachment:  
As stated