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The STEM school/program supports non-traditional student participation through outreach to groups often underrepresented in STEM program areas.

Munster High School retains and recruits underrepresented groups in STEM academics and extra-curricular programs. Our STEM team adopted the College Board's guidelines for the AP STEM Access program to define the term "underrepresented" as female students, minority students, and economically disadvantaged students (students whose median household income is $100,000 or less). Using this definition, in 2013 Google awarded a STEM grant to Munster High School because of the significant number of female and minority students who scored a 3, 4, or 5 on one or more STEM-related AP tests during the 2011-12 school year. MHS has continued to encourage underrepresented groups to participate in STEM programs. The demographic analysis of female and minority participation in AP programs for the 2015-2016 school year illustrates our success in this endeavor.

Other elective STEM programs at Munster High School also enjoy this same diversity. The voluntary and varied participation of students in programs such as Mathematical Association of America's American Mathematics Competition test demonstrates that Munster students not only join these programs willingly, but also with fiercely competitive results as evidenced by the high achievement scores of students from traditionally underrepresented groups. Additionally, one of our female students received an award for her performance in MathCON online competition.

Besides significant academic participation and achievement by members of underrepresented groups, Munster High School also maintains outstanding achievement in many intensely competitive STEM extracurricular activities, including Science Olympiad, Robotics, and TEAMS (Tests of Engineering Aptitude, Mathematics, and Science.) Not only have all three programs continuously been awarded numerous state and national titles over the past several years, but they also demonstrate the diverse culture of participation Munster High School promotes so successfully. Each team represents a significant percentage of women (Science Olympiad and TEAMS showing nearly 50/50 male to female representation), and include women in coaching, officer, and captain positions year after year. Specific recruiting efforts of females and minority groups have been outlined, executed, and proven effective by two of our school's most active coaches These teams are also ethnically diverse due in a large part to the deliberate efforts of the MHS staff to recruit students from traditionally underrepresented minority groups.

Despite the success of these programs, areas of weakness still exist. The working definition of underrepresented groups should be broadened to include more groups than just racial minorities and females. The data-taking processes and targeted outreach needs to also target economically disadvantaged groups. Using existing data to focus on students from lower income homes would cultivate previously untapped talent and bring added dimension to our STEM programs. Religious groups could also be more directly integrated by promoting the philosophy that religion and science are not mutually exclusive. In addition to expanding our definition of "underrepresented groups," extracurricular teams can improve on their outreach to minority groups. Though these teams are generally representative of Munster's population, more deliberate outreach that sustains this diversity over time could add even more depth to our programs. Finally, opportunities for outreach, such as the *Hidden Figures* event and Purdue Calumet's Minorities in Engineering activity need to be more frequent and more accessible to the entire student body. Active solicitation of students by guidance counselors, teachers, and other staff members would be another effective way to attract interested students;

these recruitment efforts could be used in conjunction with public displays, such as posters, assemblies, and guest speakers.