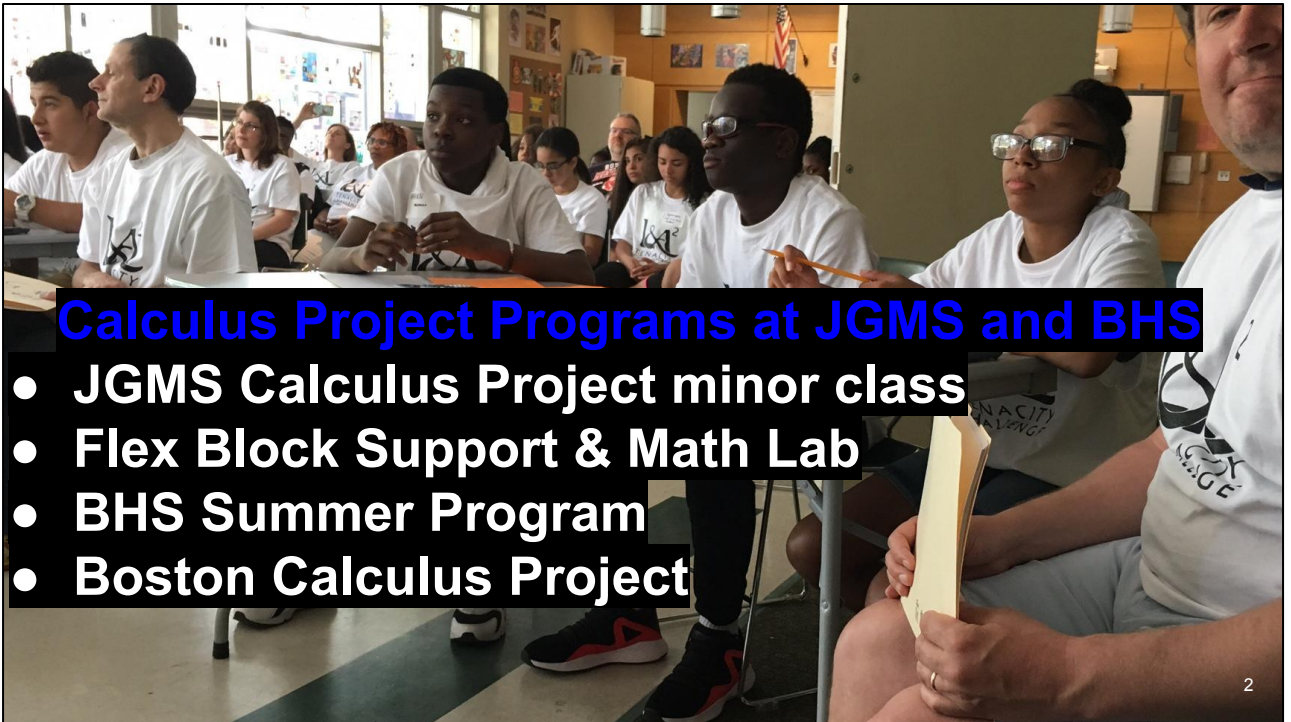


# BHS and JGMS Calculus Project

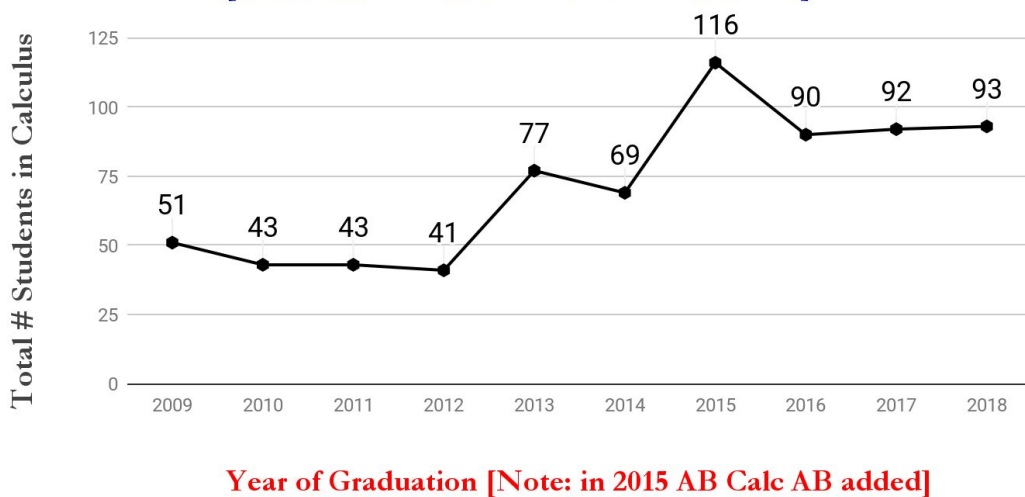
October 10, 2017



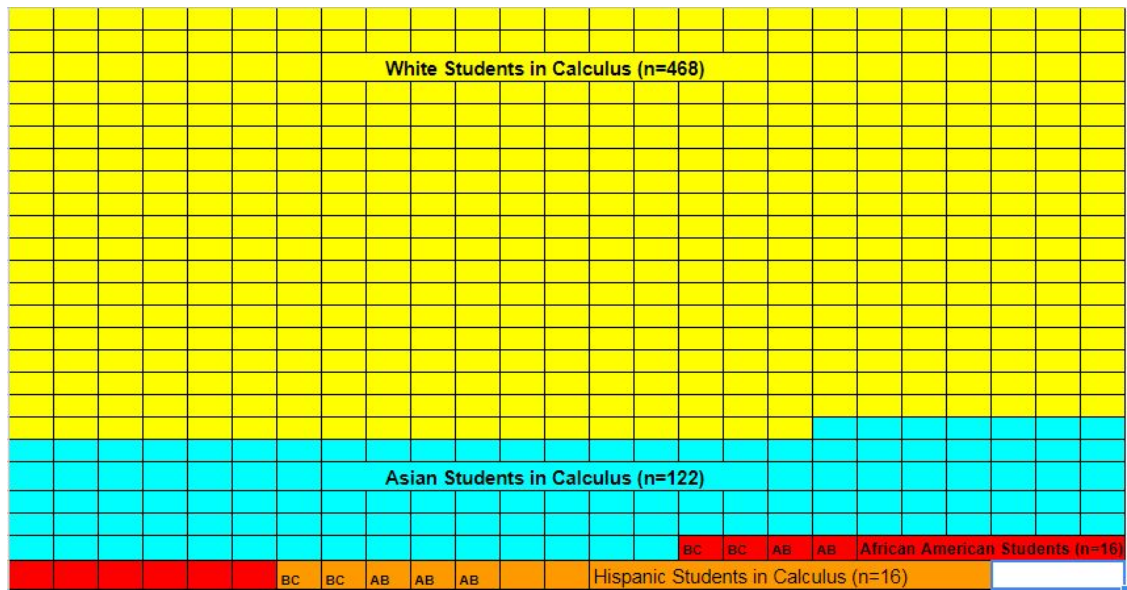
- Calculus Project is general term for several programs at JGMS and BHS whose goal is supporting African American and Hispanic students in Algebra I at JGMS and honors and high honors courses at BHS with the goal of taking Calculus by senior year.
- Focus is on African American and Hispanic students, but has grown, when possible, to include a wider group of students such as those moving up a level and students new to Bedford.
- Tonight we will highlight the JGMS Calculus Project class, Flex Block and Math Lab support courses at BHS, the BHS Summer Program, the Boston Calculus Project and students will share how these programs have impacted them.

## Calculus Enrollment at BHS

[Calculus, AP Calc AB and AP Calc BC]



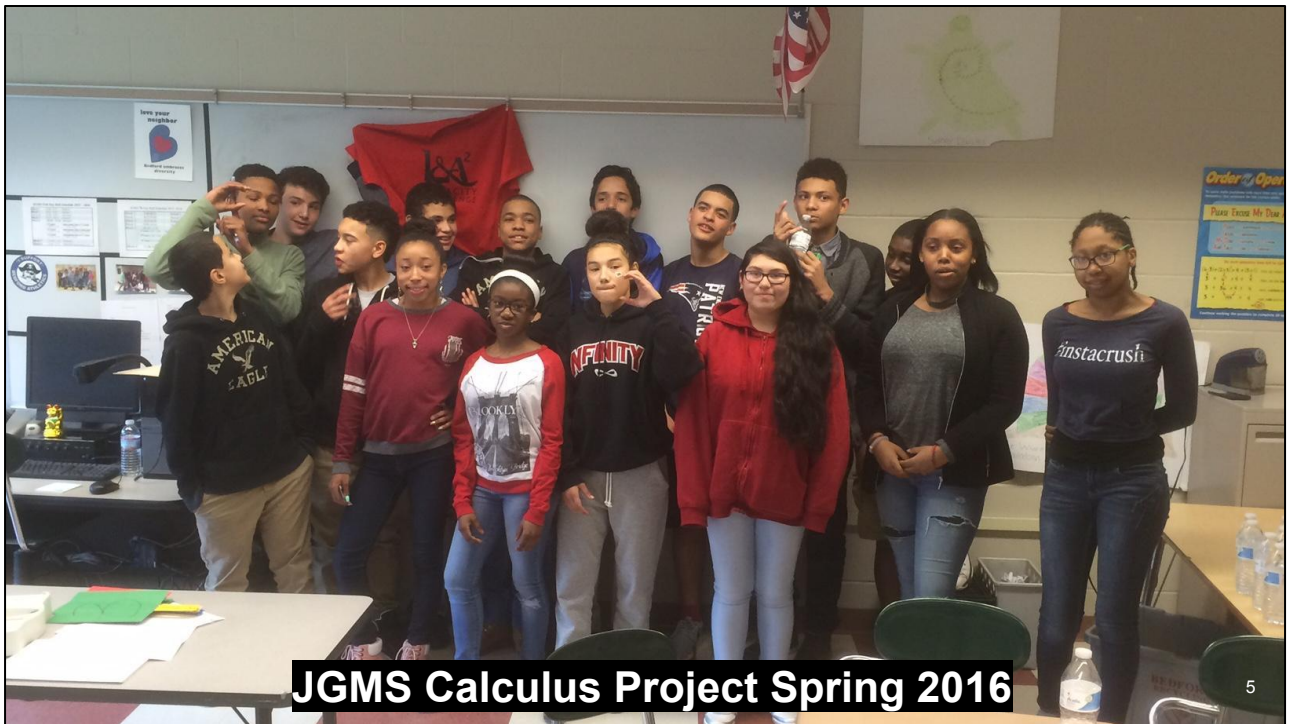
- In 2015 we added AP Calculus AB to our existing offerings of AP Calculus BC and Calculus Honors.



## Nine (9) Years of Calculus Data 2009-2017

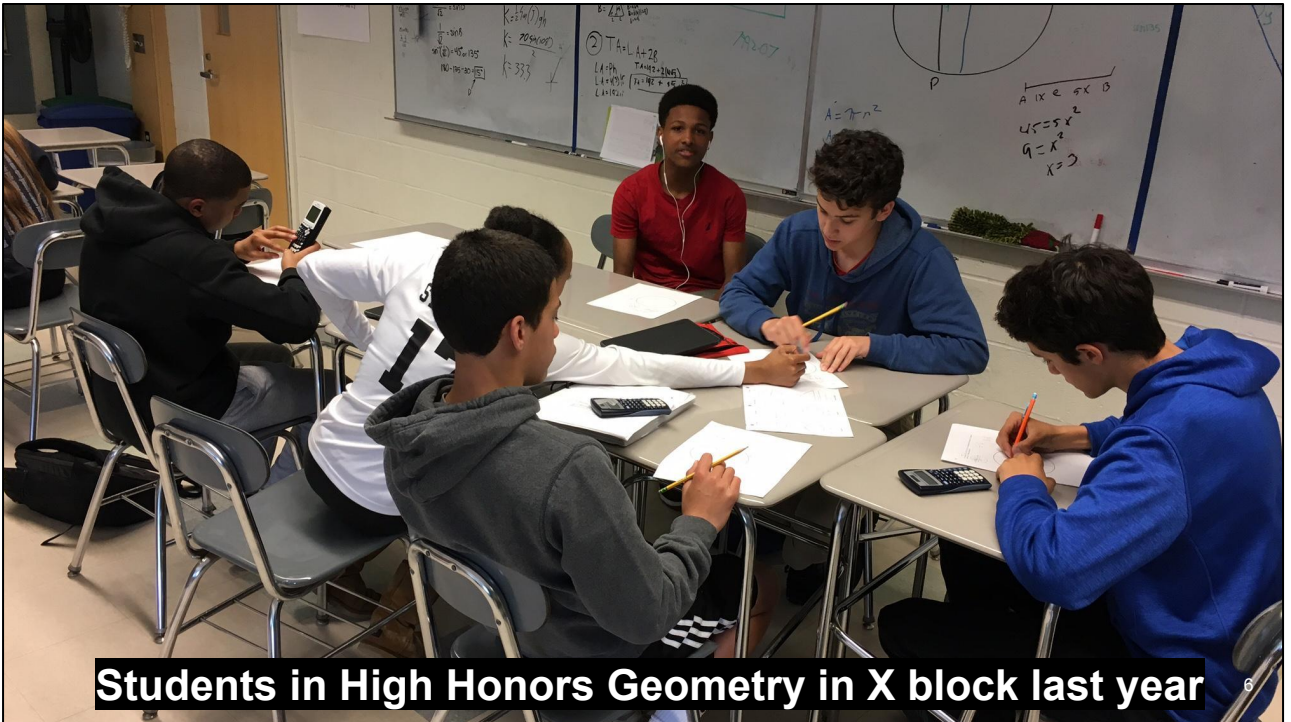
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- This visual shows 9 years of data representing 622 students who took a Calculus course. 95% are white/Asian. Over this time BHS has become more diverse with the percent African American/Hispanic increasing from 8% in 2007 to 15% in 2017.
- Looking more closely, 2 African American students in 9 years have ever taken AP Calculus BC and the same number for AB Calculus. The Calculus Project's vision is get more African American/Hispanic students ready to take Calculus.



- This picture is from the mock math quiz bowl in Spring 2016
- The JGMS Calculus Project is a math support class during the school day that began two years ago with YOG 2020.
- This year 25 students in 8th and 7th grade are receiving support by a math teacher. These are almost exclusively African American and Hispanic students in Algebra I due in part to the large size of YOG 2022, whereas in the recent two years we've been able to support a wider range of students.

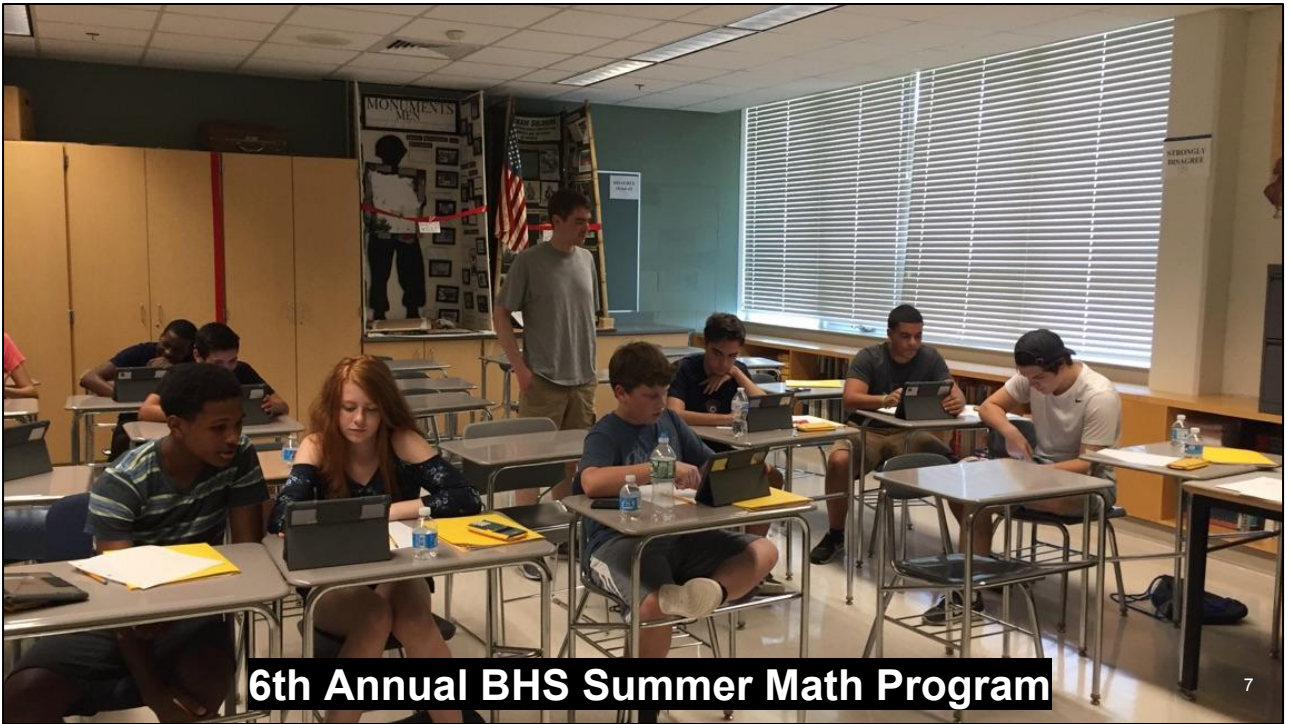




**Students in High Honors Geometry in X block last year**

- YOG 2020 had 15 students in Continuing Algebra I and Geometry Honors and 7 in High Honors Geometry who received math support in X block last year from their teachers. Liz Cowles, a teacher from JGMS, came to BHS to help support these students too.
- In our X block last year 7 students in Calculus Project from Boston and Bedford worked with me and their math teacher on rich tasks to support them in High Honors Geometry.
- This is the course that went through a full year audit of assessments, homework, and classroom activities in order to make the course more standards-based while ensuring high expectations. This work continues with a teacher who is new to Bedford this year.
- Added Math Lab two years ago, in the spirit of Writing Lab in English, to support students during school day. 5 of 7 students in Geometry HH are a part of 32 students getting support this year in math lab. Our students in the Calculus Project are assigned to a math teacher during Flex Block.
- I'd like to publically thank the BEF for the Graphing Calculators

- that we were able to use for the students in the Calculus Project.

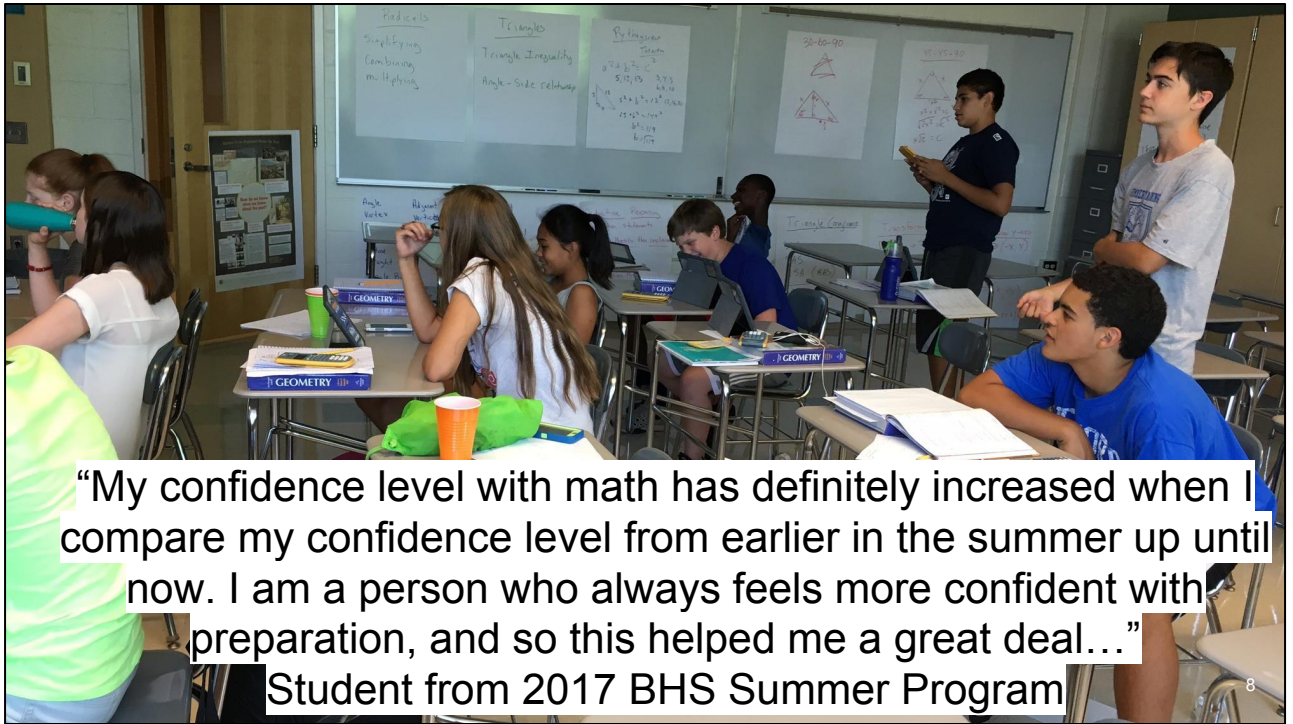


## 6th Annual BHS Summer Math Program

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- 6th year of summer preview for combination of Algebra I, Geometry and Algebra II for Boston and Bedford students.
- Taught by BHS teachers, relaxed environment, and focused on BHS math learning expectations.
- Conversations with Hanscom Middle School staff about students that might benefit. Working to increase partnership with Hanscom Middle School.



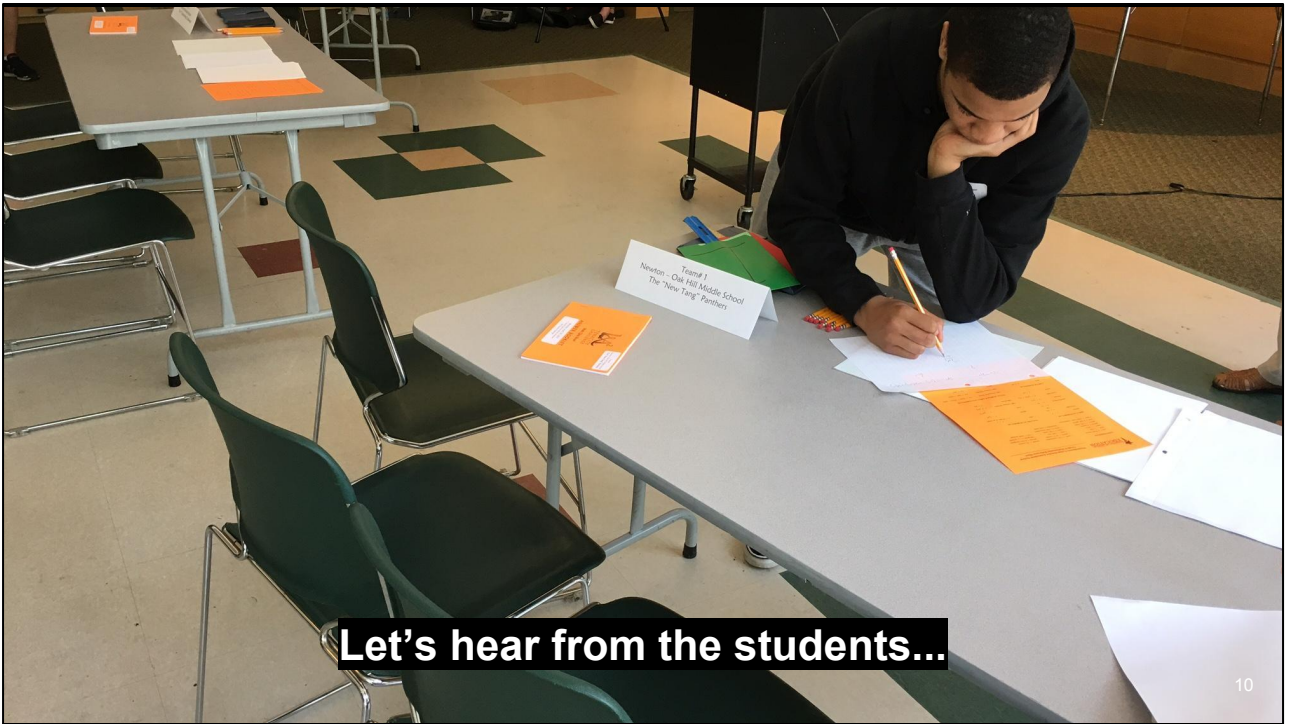


“My confidence level with math has definitely increased when I compare my confidence level from earlier in the summer up until now. I am a person who always feels more confident with preparation, and so this helped me a great deal...”

Student from 2017 BHS Summer Program



- Program run by Dr. Adrian Mims in Boston at Emmanuel College.
- We've participated for the past three years with a total of 8, 16, 13 student attending over three years.
- Program highlights include: PSAT prep, college essay writing support, changes made to better support our high honors students this year, guest speakers, the allure of a college campus, and dining hall food. Monthly meetings occur during the school year for students.



- Student coming back to JGMS to mentor and inspire the 8th graders.