

Boston University School of Education

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Stephen Roeder Assistant to the Dean
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January 30, 2015

To Whom It May Concern:

I write in strong support of the Boston University Calculus Project and Leadership Academy. Professor Robert Weintraub, in our Education Leadership and Policy Studies Department, and his colleague, Dr. Adrian Mims, national director of The Calculus Project, pioneered The Calculus Project in the Brookline Public Schools, beginning in the summer of 2009. The first cohort of students graduated in June, 2014, and the data gathered from this group is extraordinary. For the first time in the history of Brookline High, a significant number of African American, Latino, and low-income students (20%) successfully completed calculus and many earned 3's, 4's, and 5's on the AP Calculus exams. All of The Calculus Project students are now in college, many of them studying the STEM (Science, Technology, Engineering, and Mathematics) disciplines. Five additional cohorts in Brookline are today on a trajectory to reach calculus in their senior year of high school.

Dr. Mims is now working in ten school systems in Massachusetts, Maryland, Florida, and New York, supporting these schools in the implementation of The Calculus Project. Dr. Mims and Dr. Weintraub are now proposing to create a BU Calculus Project and Leadership Academy for Boston students. The Academy brings rising eighth graders to BU where they will study the mathematics course they will take in the fall semester. During the school year, the students will receive after-school enrichment and tutorial support in their math course. Also during the school year, they will attend a monthly Saturday Academy at BU for additional instructional support and participate in The Calculus Project's *Pride Curriculum*, which brings accomplished STEM professionals of color to BU for a Speaker Series.

BU math education professors will be engaged in the project as curriculum developers, and their graduate students will serve as tutors in the program, during the summer and school year. Perhaps the most powerful element of this project is that Boston students – from eighth grade through their senior year in high school – will be "in residence" at Boston University, providing them with an experience that can make them very comfortable in a university setting and drive their aspirations for a college degree. The Calculus Project is an important national initiative for historically low-performing students and Boston University's School of Education is proud to support it.

Sincerely,

A handwritten signature in black ink, appearing to be "HLC", with a long horizontal line extending to the right.

Hardin L K Coleman

Inclusive, good-quality education is a foundation for dynamic and equitable societies.

- Archbishop Desmond Tutu

LYNN PUBLIC SCHOOLS

James Leo McGuinness Administration Building - 100 Bennett Street, Lynn, MA 01905
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*Patrick A. Tutwiler, Ph.D.
Superintendent of Schools*

November 7, 2018

Sam Catherine Johnston, Ed.D.
Jess Gropen, Ph.D.
CAST
40 Harvard Mills Square, Suite 3
Wakefield, MA 01880

Dear Drs. Johnston and Gropen:

Thank you for the invitation serve as a school site partner for the project you are proposing to the National Science Foundation: "Exploring the Impact of a Peer Tutor Teacher Exchange (APTTE) on Minority Students in High School Mathematics." As the Superintendent of Lynn Public Schools and on behalf of the mathematics teachers and students in the district, I am pleased to offer my commitment to the project should it be funded. I understand that you will be partnered with Dr. Adrian B. Mims Sr. of The Calculus Project to develop and evaluate an intervention that includes a web-based peer-tutoring environment to support high school minority peer tutors and teachers in ninth grade math classes.

The proposed project builds on the success of The Calculus Project and will support teachers in developing practices that support minority students' achievement and engagement in mathematics, while also building the leadership and teaching skills of the peer tutors. I am confident that the APTTE platform, as proposed, will fill a pressing need for our minority students and has the potential to expand the pipeline of minority students who pursue teaching and other mathematics-related pathways beyond high school.

Our district has worked with Dr. Mims for the past two years implementing The Calculus Project at Pickering Middle School. Our first cohort, who are currently in the eighth grade, showed significant strides that yielded the following data:

- 46 percent of the students earned at least a "B-" for the 1st and 2nd quarter.
- 46 percent of the students improved their grade from first to second quarter.
- 87 percent of the students believed their participation in The Calculus Project prepared them for math topics in the first quarter.
- 73 percent of the students felt confident in their math ability during the first quarter because they attended The Calculus Project during the summer.

We are excited about our second cohort comprised of seventh graders, who are poised to produce comparable results as our first cohort after a successful summer.

I will actively support CAST and The Calculus Project in identifying and recruiting high school teachers for this project. I understand that our work will include participation in the co-design and pilot testing of the APTE

intervention, which will take place mainly in the second two years of the project (2021-2022). Pilot testing participation in focus group interviews with students and teachers, classroom observations, surveys, the collection of tool usage data. Further, I understand and will support the participation of APTTE teacher and peer tutors in professional learning. We understand that our participating teachers will receive stipends, and that we will cover the costs for substitute teachers.

I wish you success in securing funding for this exciting initiative.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Patrick A. Tutwiler', with a long horizontal flourish extending to the right.

Patrick A. Tutwiler, PhD
Superintendent of Schools



CITY OF MALDEN, MASSACHUSETTS

THE PUBLIC SCHOOLS

David DeRuosi Jr., Ed. D.
Superintendent of Schools

200 Pleasant Street, Malden, MA 02148 Tel. 781-397-7204 Fax: 781-397-7276

Kelly A. Chase Ed.D.
Assistant Superintendent

March 16, 2016

To Whom It May Concern:

We are writing this letter in enthusiastic support of The Calculus Project. We are impressed by the data gathered from the project's initial year and look forward to a continued partnership.

We believe that The Calculus Project has addressed critical areas that are key to the success of our under-represented students. From an academic lens, the project has created the opportunity for under-represented students to take advantage of – and succeed in – high-level math courses, culminating with calculus in their senior year. From a cultural lens, TCP addresses the need to transform the culture of schools to one with the highest of teacher expectations and students' belief in their ability. It is our belief that TCP has the capacity to connect the academic and cultural pieces that will ultimately result in a transformative experience for students and teachers alike. Data from our first year with TCP is most encouraging. Student assessment data from the first year of the project shows that TCP has indeed made a positive impact on student growth; anecdotal evidence from students and staff indicates a most positive change in students' confidence relative to math and general school success.

We write to you not only as urban educators, but also as former students of urban schools. We know better than anyone what a program like The Calculus Project can offer our urban students. We fully understand that The Calculus Project - with its commitment to dramatically increasing the number of under-represented students who succeed in high-level math courses by equipping students with the skills necessary to succeed in college and beyond - is the opportunity our students need, want, and will benefit from for years to come. To that end, we stand behind The Calculus Project and look forward to continued partnership.

If we can provide any additional information, please do not hesitate to contact Superintendent DeRuosi at dderuosi@maldenps.org or 781-397-7204.

Sincerely,

David DeRuosi, Jr., Ed.D.
Superintendent of Schools

Kelly Chase, Ed.D.
Assistant Superintendent of Schools

Carol Keenan
Principal, Salemwood School



PUBLIC SCHOOLS

MILTON, MASSACHUSETTS 02186

MARY C. GORMLEY
Superintendent of Schools
(617)-696-4808/09

JANET SHEEHAN
Assistant Superintendent
For Curriculum & Human Resources
(617)-696-4811/12

DR. GLENN H. PAVLICEK
Assistant Superintendent
For Business Affairs
(617)-696-5041

November 13, 2018

Sam Catherine, Johnston, Ed.D.
Jess Gropen, Ph.D.
CAST
40 Harvard Mills Square, Suite 3
Wakefield, MA 01880

Dear Drs. Johnston and Gropen:

Thank you for the invitation to serve as a school site partner the project you are proposing to the National Science Foundation: "*Exploring the Impact of a Peer Tutor Teacher Exchange (APTTE) on Minority Students in High School Mathematics.*" As the Superintendent of Milton Public Schools and on behalf of the mathematics teachers and students in our district, the proposed project aligns with our school and district mathematics achievement goals and I am pleased to offer my commitment to the project should it be funded. I understand that you will be partnered with Dr. Adrian B. Mims Sr. of The Calculus Project to develop and evaluate an intervention that includes a web-based peer tutoring environment to support high school minority peer tutors and teachers in ninth grade math classes.

The proposed project builds on the success of The Calculus Project and will support teachers in developing practices that support minority students' achievement and engagement in mathematics, while also building the leadership and teaching skills of the peer tutors. I am confident that the APTTE platform, as proposed, will fill a pressing need for our minority students and has the potential to expand the pipeline of minority students who pursue teaching and other mathematics-related pathways beyond high school.

The mission of The Calculus Project at Milton Public Schools is to support students who may be historically absent from high level mathematics classes on a trajectory toward success in calculus in their senior year. The district began working with Dr. Mims five years ago to replicate The Calculus Project with 20 rising eighth graders. Today, approximately 100 students participate in the program with 70 percent of our first cohort enrolled in honors or Advanced Placement Calculus.

25 Gile Road, Milton, Massachusetts 02186

I will actively support CAST and The Calculus Project in identifying and recruiting high school teachers for this project. I understand that our work will include participation in the co-design of the APPTE intervention, which will take place mainly in the first two years of the project (2019-2021). Further, I understand and will support the participation of APTTE teachers and peer tutors in professional learning. We understand that our participating teachers will receive stipends, and that we will cover the costs for substitute teachers.

I wish you success in securing funding for this exciting initiative.

Sincerely,

A handwritten signature in cursive script, reading "Mary C. Gormley".

Mary C. Gormley
Superintendent

The Milton Public School system does not and shall not discriminate on the basis of race, color, religion (creed), gender, gender expression, gender identity, transgender status, gender transitioning, age, national origin (ancestry), disability, pregnancy/parenting status, marital status, sexual orientation, homelessness, or military status, in any of its programs, activities or operations. These include, but are not limited to, admissions, equal access to programs and activities, hiring and firing of staff, provision of and access to programs and services, as well as selection of volunteers, vendors and employers recruiting at the Milton Public Schools. We are committed to providing an inclusive and welcoming environment for all members of our staff, students, volunteers, subcontractors, and vendors. The following person has been designated to handle inquiries regarding the non-discrimination policies: Asst. Superintendent for Curriculum & Human Resources, 617-696-4812

25 Gile Road, Milton, Massachusetts 02186



Orange County Public Schools

445 West Amelia Street • Orlando, FL 32801-1129 • Phone 407.317.3200 • www.ocps.net

February 8, 2017

Mr. Adam Tucker
Deputy Director, Bill and Melinda Gates Foundation
1432 Elliott Avenue West
Seattle, Washington 98119

Dear Mr. Tucker:

On behalf of Orange County Public Schools (OCPS), the ninth largest school district in the nation and the fourth largest in Florida, I am providing this letter of support for The Calculus Project (TCP) proposal being submitted under your foundation's Networks for School Improvement grant opportunity. TCP is the work of Dr. Adrian B. Mims Sr., founder and National Calculus Project Director for Cambridge Education. He began working with our Minority Achievement Office to replicate TCP in our middle schools in 2013. Over the course of three years, he has worked with our education leaders to develop curriculum and provide professional development to administrators and teachers to ensure the successful implementation of TCP. Furthering our partnership, OCPS and Cambridge Education propose to expand the TCP initiative to all high schools in Orange County.

We embrace TCP because the components of the program are supported by research and have led to success with activities such as:

- mitigating the summer slide and accelerating student learning by pre-teaching students math standards during the summer;
- increasing student confidence, building community and teaching students how to work collaboratively by creating student-centered learning groups;
- reducing the feeling of isolation by grouping the same students in honors and advanced math classes during the school year to allow them to hone their summer skills as a cohort; and
- teaching students the "pride curriculum" so they can learn about the contributions of STEM professionals of color to cultivate a strong math and science identity.

After years of analyzing student data and making minor adjustments to TCP, I am pleased to write that in 2017, OCPS had the largest percentage of middle school students passing the algebra 1 end-of-course exam in Florida. These results are very important and place our seventh graders on a trajectory to enroll in AP Calculus BC and eighth graders who pass the test on a trajectory to AP Calculus AB. The ripple effect is that students have the opportunity to start their freshman year of high school with high school credit in algebra and geometry. We know from research that students who enroll in AP Calculus their senior year have a better chance of successfully pursuing degrees in STEM and completing college.

We believe TCP will continue to accelerate the academic performance of our minority students in STEM and advance our efforts to close the achievement gap. Furthermore, this initiative aligns with our district's vision to be the top producer of successful students in the nation.

Sincerely,



Barbara M. Jenkins, Ed.D.
Superintendent



Somerville Public Schools

Education • Inspiration • Excellence

Mary E. Skipper, Superintendent

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Sam Catherine, Johnston, Ed.D.
Jess Gropen, Ph.D.
CAST
40 Harvard Mills Square, Suite 3
Wakefield, MA 01880

Dear Drs. Johnston and Gropen:

Somerville Public Schools is pleased to offer its commitment to participate in the project you are proposing to the National Science Foundation: “*Exploring the Impact of a Peer Tutor Teacher Exchange (APTTE) on Minority Students in High School Mathematics.*” The proposed project aligns with our school and district mathematics achievement goals and I am pleased to offer our commitment to the project should it be funded. I understand that you will be partnered with Dr. Adrian B. Mims Sr. of The Calculus Project to develop and evaluate an intervention that includes a web-based peer tutoring environment to support high school minority peer tutors and teachers in ninth grade math classes.

The proposed project builds on the success of The Calculus Project and will support teachers in developing practices that support minority students achievement and engagement in mathematics, while also building the leadership and teaching skills of the peer tutors. I am confident that the APTTE platform, as proposed, will fill a pressing need for our minority students and has the potential to expand the pipeline of minority students who pursue teaching and other mathematics-related pathways beyond high school.

Our district has worked with Dr. Mims for the past two years implementing The Calculus Project at our six elementary schools (K-8) and high school. Since the implementation of the program, we have observed students become more engaged and confident with mathematics. More importantly, our data indicate that students who participated in The Calculus Project have a 61 percent student-growth percentile on the state test (Massachusetts Comprehensive Assessment System—MCAS).

We will actively support CAST and The Calculus Project in identifying and recruiting high school teachers for this project. I understand that our work will include participation in the co-design and pilot testing of the APTTE intervention, which will take place mainly in the second two years of the project (2021-2022). Pilot testing may include participation in focus group interviews with students and teachers, classroom observations, surveys, the collection of tool usage data. Further, we will support the participation of APTTE teacher and peer tutors in professional learning. We understand that our participating teachers will receive stipends, and that we will cover the costs for substitute teachers.

I wish you success in securing funding for this exciting initiative, and appreciate your support of Somerville Public Schools students.

Sincerely

Mary E. Skipper
Superintendent of Schools