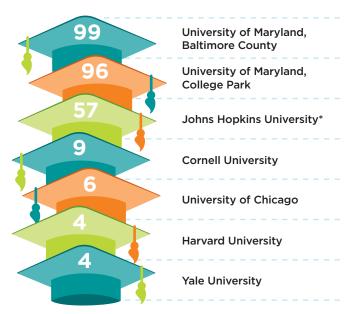




# INGENUITY'S CLASS OF 2017 EXCEEDS EXPECTATIONS >>>

# COLLEGE ACCEPTANCE HIGHLIGHTS (2011-2017)

Historical list of Ingenuity acceptances at selective colleges



<sup>\*</sup>Johns Hopkins University accepts more graduates from the Ingenuity Project at Baltimore Polytechnic Institute than from any other program in the world.

#### Ingenuity's class of 2017 had 12 perfect 800 SAT and SAT II scores

Almost 100% of Ingenuity class of 2017 will be attending college. Students have been accepted to the following universities (among others): Boston College, Duke University, Emory University, Franklin Olin College of Engineering, Johns Hopkins University, Morgan State University, Purdue University, Temple University, University of Maryland, College Park, Washington University in St. Louis, Yale University

SAT and SATII Test Scores	Ingenuity Average	US Average
SAT Mathematics	692	527
SAT Reading/Writing	677	533
SAT II Biology (taken at the end of 9th grade)	648	617
SAT II Physics (taken at the end of 10th grade)	642	664
SAT II Chemistry	718	665
SAT II Mathematics 1 (taken at the end of 10th grade)	652	605
SAT II Mathematics 2	734	694

<sup>-</sup> According to the JHU Admission Office.

#### **OUR MISSION**

To prepare and launch the next diverse generation of nationally competitive STEM (science, technology, engineering, and mathematics) leaders in Baltimore City Public Schools.



The Ingenuity Project, a non-profit organization, is a joint effort between the Baltimore City Public School System and Baltimore's science and mathematics community. It is a yearround, comprehensive, advanced math and science instructional program for Baltimore City students in grades six through 12. We are committed to recruiting, identifying, and supporting students who have a high potential and interest in STEM and who reflect the ethnicity, gender, and income of Baltimore City households.

The high school program aligns to the highest standards in math and science, and enables students to enroll and succeed in selective colleges and STEM careers. The middle school program provides students with rigorous STEM courses and experiences that prepare and inspire a pursuit of advanced STEM curriculum in high school.

#### Who We Serve

This school year, Ingenuity served 547 Baltimore City Public School students in grades six through 12 across three middle schools -Hamilton, Mount Royal, and Roland Park - and a single high school, Baltimore Polytechnic Institute.



### Dear Friends,

This school year proved to be a very successful one for The Ingenuity Project. We are immensely proud of our students' academic growth as they navigate the rigors of this intense program. As a result of their hard work, many of our 2017 graduates are attending the nation's most competitive universities; and nearly 100 percent of our eighth graders have been accepted into their first choice of selective high schools.

This year also marks the end of year one for Ingenuity Project's bold strategic plan articulated in 2016 by our board of directors and leadership team. Our goal is to, by 2020, increase the number of high-ability students from underserved communities both enrolled in The Ingenuity Project and accepted into selective colleges. This report not only highlights the strides we have made toward the 2020 strategic plan, but it also celebrates a highly successful 2016-2017 academic school year.

Indeed, The Ingenuity Project would not be possible without the dedication of our master teachers who hold high expectations for all of our students while supporting them throughout the rigorous curricula. Further, we also recognize that our students could not succeed without our strong partnership with Baltimore City Public Schools and the network of parents, mentors, and tutors who support our students as they tackle Ingenuity's demanding coursework. Finally, we wish to thank you for your commitment to The Ingenuity Project. Your support makes our program possible.

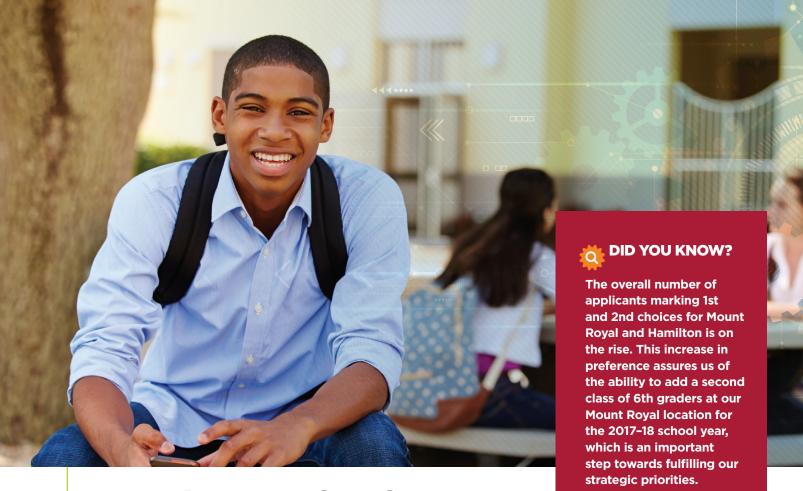
Sincerely,

Ben Yuhas, Ph.D.

**Board President** 

- Xisette DMories Lisette S. Morris, M.S.

**Executive Director** 



# EXPANDING TO CULTIVATE A DIVERSE STEM PIPELINE

# INGENUITY PRIORITIES:

- → to expand the number of available seats
- → to improve access for a talented, diverse population of Baltimore City students.

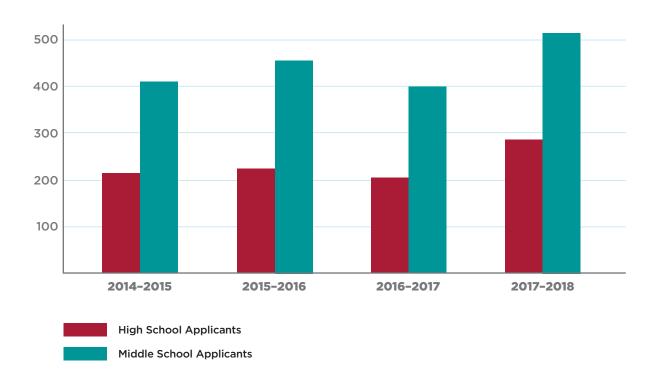
#### **EXPANSION**

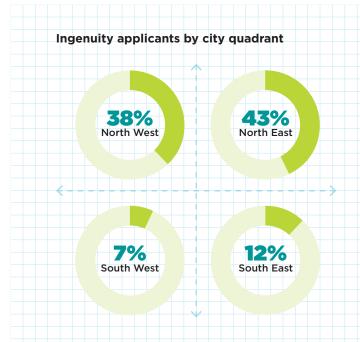
Due to the success of our recruitment efforts and revised application process, Ingenuity recognized it was ready to expand.

- **+ Mount Royal:** Beginning with the 2017-2018 school year, Ingenuity's Mount Royal program enrolled two sixth-grade classes, with the intention to continue to do so each year until the program has doubled in size.
- + Baltimore Polytechnic Institute (Poly): For the 2017-18 school year, Ingenuity will enroll an additional 30 students in its high school program. These applicants demonstrated the academic abilities to make them successful.
- + Middle School Expansion: Ingenuity's desire to serve a greater population of students across Baltimore City has led to preliminary plans to expand to a new site by 2020.

#### **Number of applicants for The Ingenuity Project**

Removing Barriers, Increasing Demand: In fall 2017, Ingenuity had a record number of applications for the 2017-2018 school year for both the middle and high school programs. This surge was the result of a new online application that took families just five minutes to complete from any mobile device. Instead of requiring parents to submit multiple sources of data and assessment on their child, Ingenuity developed a streamlined process with Baltimore City Public Schools to gather candidate information.





To reach our goal to better reflect the Baltimore City population, Ingenuity focused on targeted recruitment at several K-5 schools surrounding the Mount Royal and Hamilton programs. These efforts resulted in triple the number of applicants from those particular schools. However, we are still not serving many students in the southwest and southeast quadrants of the city.

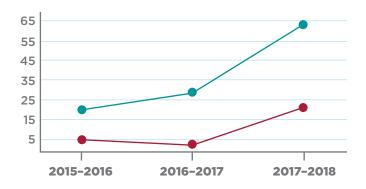
# PROVIDING AN EXEMPLARY STEM EDUCATION »

For the second year, The Ingenuity Project refined and implemented a 26-week advanced STEM Capstone Challenge for high-performing middle school students.

The 2016-2017 Capstone Challenge served 316 seventh-grade students across nine schools.

This included 120 students enrolled in The Ingenuity Project and 196 students from other public and charter schools across the city. The Challenge was designed to foster achievement, academic competition, and complex problem solving using math, science, technology, and engineering design skills.

#### Number of students applying for Ingenuity from participating Capstone Challenge schools



The Capstone Challenge has been an effective tool for the identification of talent. As a result of the initiative, Ingenuity tripled the number of applicants and enrolled four times the number of students from the participating schools.





# COLUMBUS CENTER AND THE CHESAPEAKE BAY WATERFRONT PARTNERSHIP GIVE BACK

The culmination of the Capstone Challenge took place as an exhibition at UMBC's Columbus Center, a hub for faculty and students from the University System of Maryland, scientists from around the world, and Baltimore's blossoming tech startups. Over 300 students attended the exhibition to showcase their projects, and more than 25 scientists and engineers served as role models and judges. We are grateful for the Columbus Center's generous donation of its beautiful space.

Ingenuity would also like to thank the Chesapeake Bay Foundation for providing educational resources for our participating teachers and a fantastic Chesapeake Bay trip for the winning Capstone Challenge teams.



#### **HIGH SCHOOL** RESEARCH PRACTICUM

The Ingenuity Research Practicum is a three-year program that spans sophomore through senior years, and serves as an incubator for future scientists, engineers, and mathematicians. During the Research Practicum experience, students work with mentors at local colleges, universities, and other research institutions to develop independent research projects. Students contribute to the body of research and, in some cases, have their work acknowledged in scientific papers.

#### **Research Award Highlights:**

- → Alida Schott won first place in the physical science category at the Intel International Science and Engineering Fair (ISEF), and then went to the 2017 ISEF in Los Angeles, where she won third place.
- → Stephen Grabowski was named the grand prize winner in the biological sciences category at the Baltimore Science Fair for his project, "Dethiosulfovibrio Strain F2b, a New Non-Thiosulfate Reducing Bacterium that Degrades Mariculture Waste." He also went to Los Angeles in May to compete at the 2017 ISEF.
- → Aishwarya Shettigar received second place at the Maryland Junior Science and Humanities Symposium (JSHS). She, Rebecca Brody, and Claire Wayner won a trip to San Diego to compete at the National JSHS.
- → Rebecca Brody received second place at the National Junior Science and Humanities Symposium and first place at the Baltimore Science Fair, both in the biological sciences category.
- → Claire Wayner won the U.S. Stockholm Junior Water Prize at both the regional and state levels.



#### **Ingenuity Poly Senior Receives National** Recognition

Amy Zhang, Ingenuity senior at Baltimore Polytechnic Institute, was selected as a national scholar in the 2017 Regeneron Science Talent Search. Her research involved the modification of a cell-sized mechanical tool called a microgripper that could potentially aid in the capture and retrieval of a single cell. This work can be used in microsurgery and medical research to understand the fundamental characteristics of cells.

Amy performed her research at the Johns Hopkins University Department of Chemical and Biomolecular Engineering and was mentored by Dr. David Gracias and Qianru Jin. Amy will be attending Yale University in the fall of 2017.



#### **SHANI ORTIZ**

Shani Ortiz has been working in education for almost 15 years. She has been a part of the Ingenuity team since 2006, working first as the admissions coordinator, then moving into college counseling. Her strong belief in the intrinsic value of education and commitment to providing the best possible support to all Ingenuity students make her passionate about working with students and families as they navigate the journey to and through college. Next year, she will become fulltime as Ingenuity's dean of student engagement. In this role, Shani will create several enrichment opportunities and experiences to help students succeed along the rigorous academic pathway of Ingenuity at Poly.

# STRATEGIC PRIORITIES:



# SUPPORT THE WHOLE STUDENT

## UPCOMING HIGH SCHOOL ENRICHMENT PROGRAMS

- + SQUAD: A peer mentoring group for students of color led by Ingenuity juniors and seniors, this program is designed to help freshmen and sophomores develop their abilities to balance academic success with social wellbeing. SQUAD's goal is to retain students of color in The Ingenuity Project for four years, and then inspire them to apply for and enroll in selective colleges. The meetings provide a safe space for mentorship around academic, cultural, and social issues.
- + Connections: Students who are at risk of falling below an 80 percent average in their math and science courses participate in the Connections program, which provides individualized academic and social/emotional support. Students participate in one-on-one meetings bi-weekly or monthly to troubleshoot and set goals for success.
- **+ Peer Tutoring:** Ingenuity juniors and seniors are paid by Ingenuity to work with individual students or small groups to improve study skills or better understand concepts taught in class.



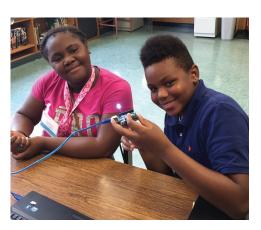


#### AFTER-SCHOOL LEARNING CLUB

Ingenuity middle school students are invited to participate in after-school learning clubs where they receive support from their classroom teachers to complete homework and get help with concepts taught that day. The Learning Club has shown to improve student performance year after year.

### BUILDING MATHEMATICAL BRILLIANCE

+ High School: Ingenuity juniors Vivian Borbash, Alida Schott, Ezra Szanton, and Claire Wayner were all accepted into the Future Scholars Program at the Johns Hopkins University Department of Mathematics. This notable opportunity will allow them to take rigorous college-level math courses during their senior year in high school.



- + Middle School MathCounts
  Teams: Each year, Ingenuity's
  dedicated team of math
  teachers prepares students
  to compete in the regional
  MathCounts competition at
  McDonogh School.
- + Building Future Coders: All incoming sixth-grade students participate in a two week summer orientation, and Ingenuity partnered with Code in the Schools to

pilot a coding program for students in the Mount Royal and Hamilton programs. During the 2017-2018 school year, all ninth-grade Ingenuity students will take an Introduction to Computer Science course, paving the way to high-demand careers in STEM.



Staff Spotlight

#### **GALE FLETCHER**Dean of Students

Gale Fletcher is best described by one of our longtime Ingenuity middle school teachers:

"Mrs. Fletcher is often the voice of reason that our parents and students need to hear. The perspective she brings to conversations are invaluable. When teachers come to her for advice or support around parent/student issues, she has the gift of seeing the whole forest, not just the trees. She is an amazing resource - both wise and softspoken while still getting her point across. I love our Fletcher Fridays; Mrs. Fletcher shows up for afterschool learning programs to sit and teach youngsters how to organize their "stuff," and then returns a few weeks later to make certain the students have put those organization skills to practice. She's the best!"

### **DONOR LIST** »

#### **Foundation and Government Support**

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#### **Corporate Program Sponsors**

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Lamarana Sall Shanaysha Sauls Zac and Jackie Secor Valerie and Gilbert Serrall Aaron and Jodi Sherber Cat Smith Angelique Taylor Faith Ward Peter and Caroline Wayner Maureen and Michael Weiss Ann Alexandra Wiker Peter Winch

## STATEMENT OF FINANCIAL POSITION >>>

JUNE 30, 2017 AND 2016	2017	2016
ASSETS		
Cash	\$262,366	\$221,971
Certificate of deposit	-	-
Cash restricted	-	-
Accounts receivable	-	-
Grants receivable	\$130,000	\$217,876
Prepaid expenses	\$13,087	\$9,986
Net proprety and equipment	\$41,351	\$47,344
Total Current Assets	\$446,804	\$497,177
LIABILITIES		
Deferred revenue	-	-
Accounts payable	\$10,248	\$2,731
Accrued Salaries	\$13,827	\$8,706
Total Current Liabilities	\$24,075	\$11,437
NET ASSETS		
Unrestricted	\$262,729	\$370,740
Temporarily restricted	\$160,000	\$115,000
Total Net Assets	\$422,729	\$485,740
Total Liabilities and Net Assets	\$446,804	\$497,177
STATEMENT OF ACTIVITIES		
June 20, 2017 and 2016	2017	2016
Revenues and Other Support		
Baltimore City Public School System	\$368,000	\$368,000
The Abell Foundation	\$425,000	\$450,000
Foundation and corporate grants	\$324,000	\$301,500
Other Revenue	\$198,866	\$171,179
Total Revenues and Other Support	\$1,315,866	\$1,290,679
Expenses		
Program services	\$1,120,654	\$1,068,577
Management and general	\$216,960	\$192,316
Fundraising	\$41,263	\$35,035
Total Expenses	\$1,378,877	\$1,295,928
Loss on Disposition of Property	-	-
Change in Net Assets	\$(63,011)	\$(5,294)
Net Assets at Beginning of Year	\$485,740	\$490,989

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Sergei Zverev, Ph.D.

Associate Director

Gale Fletcher, MAT

Dean of Students

Shani Ortiz, M.S.

Dean of Engagement

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Admissions Coordinator

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**Shannon Katona** 

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Mathematics Department Head

David Nelson, M.S.

High School Math Teacher

Lisa Fridman, M.S.

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**Judy Egerton** 

Middle School Math Teacher

**Felicity Ross** 

Middle School Math Teacher

Alka Sharma

Middle School Math Teacher

Maya Spicinetskiy

Middle School Math Teacher

