



# **Invictus Preparatory Charter School**

## **2015-16 ACCOUNTABILITY PLAN PROGRESS REPORT**

Submitted to the SUNY Charter Schools Institute on:

September 15, 2016

By Dr. Camille Bell, Executive Director

370 Fountain Avenue, Third Floor

Brooklyn, NY 11208

Phone: (718) 235-1682

## INTRODUCTION

Dr. Camille Bell prepared this 2015-16 Accountability Progress Report on behalf of the school's board of trustees:

<b>Trustee's Name</b>	<b>Board Position</b>
Renee M. Chung	Chair
Kevin Brown	Trustee
Stefan Atkinson	Trustee
Luke Justice	Trustee
Charles Guerrero	Trustee

**Camille Bell has served as the Executive Director since 2014.**

# INTRODUCTION

## **Our Mission**

Invictus Preparatory Charter School (IPCS) exists to empower scholars with the academic and ethical foundations necessary for excellence in high school, college and life.

## **Our Model**

- **High academic expectations lead to high academic achievement**

We expect all of our scholars to succeed in the four core academic areas of English, Math, Science, and Social Studies. However, proficiency is not enough to be considered college-ready. We expect every single one of our scholars to become masters of their studies; Invictus Prep's curriculum is built to ensure a sound academic foundation for eventual expertise in all subjects.

- **Learning is easiest in a safe, structured school.**

Learning cannot occur in an environment of disorder and chaos. Invictus Prep has very high expectations for student behavior, and will not allow students to disrespect the school, our staff, other students, or themselves.

- **Literacy is Everything**

Literacy is the academic skill upon which all learning is based. A student cannot be considered college---ready if they cannot read critically, write eloquently, and speak fluently. Invictus Prep provides its students with a minimum of two hours of literacy instruction daily.

- **Character Counts**

We believe that is our responsibility to teach our students to make good decisions. All Invictus Prep students receive weekly instruction on the meaning of Integrity, Courage, Excellence, and Determination.

We strive to create a community that nurtures our students' growth by teaching how to work and learn together with mutual kindness, respect and consideration for one another, the cultures and ideas we study and for the learning environment. Every interaction with students is a teachable moment. Our community encourages the development of self---discipline and our role is to help students take responsibility for their actions and empower them.

To enliven the kind of school that we are seeking to create, all members of the Invictus Prep community are expected to adhere to the following core values:

- INTEGRITY
- COURAGE
- EXCELLENCE
- DETERMINATION

## INTRODUCTION

### School Enrollment by Grade Level and School Year

School Year	5	6	7	8	Total
2011-12	94				94
2012-13	90	89			180
2013-14	69	85	83		238
2014-15	53	81	102	68	311
2015-16	32	95	78	99	304

## ENGLISH LANGUAGE ARTS

### Goal 1: English Language Arts

Students will demonstrate proficiency in literacy.

#### BACKGROUND

IPCS implemented a strategic school wide turnaround plan in the 2015-2016 school year. This turnaround plan included hiring more experienced teachers and providing them with targeted, differentiated support, ongoing professional development, and weekly co-planning time.

IPCS began the school year deliberately addressing the baseline ELA data presented in the beginning of the 2015-2016 school term. Leadership positions were added to our staffing model, providing teachers with intentional support to improve instruction. The additions to our administrative staff are listed below:

- Director of Curriculum & Instruction
- Director of Special Education & Student Support Services
- Humanities Department Chair
- STEM Department Chair
- Data & Assessment Coordinator

A month-long Professional Development Summer Institute took place in August 2015 to fully prepare teachers for the challenges ahead. During this institute, teachers received initial training on the following:

- Teaching and Embracing Self-Efficacy
- Positive Behaviors Interventions & Supports (PBIS)
- Understanding Data
- Explicitly Teaching Close Reading Strategies
- Gradual Release of Responsibility (GRR)
- Technology Integration in the Classroom
- Integrating Instructional Rounds
- Rigor Series with Learning Sciences International (LSI)

The work completed during Summer Institute provided teachers with a framework for our upcoming turnaround endeavors. A significant change came in the form of master scheduling, which historically did not provide enough time for teachers to engage in strategic collaborative planning. As a result of a comprehensive needs assessment, teachers were given approximately twelve hours per week for individual and common planning time, along with aligned professional development.

Invictus Prep partnered with and built an intentional relationship with Robert J. Marzano and Learning Sciences International to begin a three-year instructional institute around rigorous teaching practices. The Learning Sciences team began our scope of work addressing the following subjects through professional development:

- Increasing Rigorous Instruction Through Questioning
- Practicing Skills, Strategies & Processes
- Learning Targets & Performance Scales

- Engaging in Cognitively Complex Tasks
- Gradual Release of Responsibility (GRR)
- Coaching Support for Teachers and Leaders

Immediate instructional shifts began with the monitoring of the implementation plan. As we continued to strengthen our partnership with LSI, we were able to make the necessary adjustments to maximize both student achievement and teacher performance.

Concurrent to the shift toward GRR was an increased use of student data to inform and readjust instruction. Professional Learning Communities were introduced during the 2014-2015 school year to identify achievement targets and establish weekly monitoring times. We then systematized our data focus using the Data Wise approach. In August 2015, teachers were trained on the Data Wise process, which was reviewed throughout the school year.

Historically, newly enrolled fifth graders have arrived substantially below grade level. Therefore, we embedded a daily intervention period that provided tiered support. In addition to their daily 70-minute periods of ELA, students received an additional 280 extra minutes of ELA intervention weekly. Our Saturday School program ran from January through April, provided additional support for students whose data indicated a need for more targeted intervention, as well.

Our increased ELA achievement can be attributed to the intentional focus to research-based intervention practices that were embraced school wide. Focus areas included the following:

- Reading blocks that focused on close reading strategies and identifying critical content
- Using aligned textual evidence to make critical inferences
- Intensive focus on effective annotation procedures
- School wide priority placed on steps to creating rigorous artifacts of writing
- School wide intensive on testing stamina

Professional Development is provided weekly to allow teachers access to strategies that will enhance classroom rigor. During these sessions, teachers had the opportunity to engage in deep data analysis and strategic planning that allowed IPCS to monitor the achievement of all students. Classroom instruction was much stronger, which also played a part in the school's growth in this area. It is our hope that the achievement trajectory will continue to move upward as the changes implemented in the school's restructuring plan are persistently applied, monitored, and normed within the school's established approach.

### **Goal 1: Absolute Measure**

Each year, 75 percent of all tested students enrolled in at least their second year will perform at or above proficiency on the New York State English language arts examination for grades 3-8.

## **METHOD**

The school administered the New York State Testing Program English language arts ("ELA") assessment to students in 5<sup>th</sup> through 8<sup>th</sup> grade in April 2016. Each student's raw score has been converted to a grade-specific scaled score and a performance level.

The table below summarizes participation information for this year's test administration. The table indicates total enrollment and total number of students tested. It also provides a detailed breakdown of those students excluded from the exam. Note that this table includes all students

## ENGLISH LANGUAGE ARTS

according to grade level, even if they have not enrolled in at least their second year (defined as enrolled by BEDS day of the previous school year).

2015-16 State English Language Arts Exam  
Number of Students Tested and Not Tested

Grade	Total Tested	Not Tested <sup>1</sup>				Total Enrolled
		IEP	ELL	Absent	Refused	
5	28					28
6	89			3	1	93
7	78				2	80
8	91			1 <sup>2</sup>	2	94
All	286	0	0	4	5	295

### RESULTS

28 percent of students in at least their second year enrolled at IPCS scored at proficiency levels 3 and 4 on the NYS ELA exam, whereas 25 percent of all students did.

Performance on 2015-16 State English Language Arts Exam  
By All Students and Students Enrolled in At Least Their Second Year

Grades	All Students		Enrolled in at least their Second Year	
	Percent Proficient	Number Tested	Percent Proficient	Number Tested
5	18%	28	0%	3
6	17%	89	16%	44
7	29%	78	31%	64
8	31%	91	32%	87
All	<b>25%</b>	286	<b>28%</b>	198

### EVALUATION

IPCS did not achieve this outcome measure.

### ADDITIONAL EVIDENCE

Overall, the ELA proficiency level is up 11 percentage points over last year. In the second table below, please note the same student progress from year to year. The same student proficiency levels increased by grade a minimum of 10 percentage points. 33 percent of these two-year cohort students moved up an achievement level from 5th – 6th grades. The number of students scoring at Level 1 decreased by 10 percent. 40% of these students moved up an achievement level from 6th – 7th grades. In grade 8, students at Level 1 decreased 34%, Level 2 increased 12%, Level 3 increased 18% and Level 4 increased 6%.

<sup>1</sup> Students exempted from this exam according to their Individualized Education Program (IEP), because of English Language Learners (ELL) status, or absence for at least some part of the exam.

<sup>2</sup> There were four grade 8 students listed in L2RPT as Absent on the ELA and Math test days who were not actually enrolled.

## English Language Arts Performance by Grade Level and School Year

Grade	Percent of Students Enrolled in At Least Their Second Year Achieving Proficiency					
	2013-14		2014-15		2015-16	
	Percent	Number Tested	Percent	Number Tested	Percent	Number Tested
5	17%	6	0%	7	0%	3
6	10%	72	14%	49	16%	44
7	23%	67	10%	82	31%	64
8			32%	57	32%	87
All	<b>17%</b>	145	<b>17%</b>	195	<b>28%</b>	198

## English Language Arts Performance of Same Students Year to Year

Grade	2014-15	2015-16	Change (+/-)
5	5%		
6	13%	15%	+10
7	8%	33%	+20
8		32%	+24
All	9%	27%	+18

### Goal 1: Absolute Measure

Each year, the school's aggregate Performance Level Index ("PLI") on the State English language arts exam will meet the Annual Measurable Objective ("AMO") set forth in the state's NCLB accountability system.

### METHOD

The federal No Child Left Behind law holds schools accountable for making annual yearly progress towards enabling all students to be proficient. As a result, the state sets an AMO each year to determine if schools are making satisfactory progress toward the goal of proficiency in the state's learning standards in English language arts. To achieve this measure, all tested students must have a PLI value that equals or exceeds the 2015-16 English language arts AMO of **104**. The PLI is calculated by adding the sum of the percent of all tested students at Levels 2 through 4 with the sum of the percent of all tested students at Levels 3 and 4. Thus, the highest possible PLI is 200.<sup>3</sup>

<sup>3</sup> In contrast to SED's Performance Index, the PLI does not account for year-to-year growth toward proficiency.

# ENGLISH LANGUAGE ARTS

## RESULTS

The ELA performance level index calculates to 92, falling short of the target AMO of 98 based on our school size.

English Language Arts 2015-16 Performance Level Index

Number in Cohort	Percent of Students at Each Performance Level			
	Level 1	Level 2	Level 3	Level 4
286	33	42	21	4

$$\begin{array}{rclclclclcl}
 \text{PI} & = & 42 & + & 21 & + & 4 & = & 67 \\
 & & & & 21 & + & 4 & = & \underline{25} \\
 & & & & & & \text{PLI} & = & 92
 \end{array}$$

## EVALUATION

IPCS did not achieve this outcome measure.

### Goal 1: Comparative Measure

Each year, the percent of all tested students who are enrolled in at least their second year and performing at proficiency on the state English language arts exam will be greater than that of all students in the same tested grades in the local school district.

## METHOD

A school compares tested students enrolled in at least their second year to all tested students in the surrounding public school district. Comparisons are between the results for each grade in which the school had tested students in at least their second year at the school and the total result for all students at the corresponding grades in the school district.<sup>4</sup>

## RESULTS

Overall, IPCS outperformed the local district #19 same grade students in ELA with 28% to their 21%.

2015-16 State English Language Arts Exam  
Charter School and District Performance by Grade Level

Grade	Percent of Students at Proficiency			
	Charter School Students In At Least 2nd Year		All NYC #19 District Students	
	Percent	Number Tested	Percent	Number Tested
5	0%	3	21%	1942
6	16%	44	21%	1584
7	31%	64	18%	1704
8	32%	87	23%	1767

<sup>4</sup> Schools can acquire these data when the New York State Education Department releases its database containing grade level ELA and math test results for all schools and districts statewide. The NYSED announces the release of the data on its [News Release webpage](#).

## ENGLISH LANGUAGE ARTS

All	<b>28%</b>	198	<b>21%</b>	6997
-----	------------	-----	------------	------

### EVALUATION

IPCS achieved this outcome measure.

### ADDITIONAL EVIDENCE

Year to year, IPCS continues to have higher ELA scores overall than the local district NYC #19.

English Language Arts Performance of Charter School and Local District  
by Grade Level and School Year

Grade	Percent of Students Enrolled in at Least their Second Year Scoring at or Above Proficiency Compared to Local District Students					
	2013-14		2014-15		2015-16	
	Charter School	Local District	Charter School	Local District	Charter School	Local District
5	17%	16%	0%	18%	0%	21%
6	10%	14%	14%	14%	16%	21%
7	23%	14%	10%	12%	31%	18%
8			32%	18%	32%	23%
All	<b>17%</b>	<b>15%</b>	<b>17%</b>	<b>15%</b>	<b>28%</b>	<b>21%</b>

#### Goal 1: Comparative Measure

Each year, the school will exceed its predicted level of performance on the state English language arts exam by an Effect Size of 0.3 or above (performing higher than expected to a meaningful degree) according to a regression analysis controlling for economically disadvantaged students among all public schools in New York State.

### METHOD

The SUNY Charter Schools Institute (“Institute”) conducts a Comparative Performance Analysis, which compares the school’s performance to that of demographically similar public schools statewide. The Institute uses a regression analysis to control for the percentage of economically disadvantaged students among all public schools in New York State. The Institute compares the school’s actual performance to the predicted performance of public schools with a similar concentration of economically disadvantaged students. The difference between the school’s actual and predicted performance, relative to other schools with similar economically disadvantaged statistics, produces an Effect Size. An Effect Size of 0.3, or performing higher than expected to a meaningful degree, is the requirement for achieving this measure.

Given the timing of the state’s release of economically disadvantaged data and the demands of the data analysis, the 2015-16 analysis is not yet available. This report contains 2014-15 results, the most recent Comparative Performance Analysis available.

### RESULTS

IPCS’s overall comparative ELA performance in 2014-15 was lower than expected at -0.51, below the 0.3 target effect size.

## ENGLISH LANGUAGE ARTS

### 2014-15 English Language Arts Comparative Performance by Grade Level

Grade	Percent Economically Disadvantaged	Number Tested	Percent of Students at Levels 3&4		Difference between Actual and Predicted	Effect Size
			Actual	Predicted		
3						
4						
5	90.6	57	5	14.7	-9.7	-0.82
6	81.5	78	13	18.9	-5.9	0.41
7	75.5	95	8	19.4	-11.4	-0.77
8	67.6	71	28	28.5	-0.5	-0.03
All	78	301	13.4	20.5	-7.1	-0.51

#### School's Overall Comparative Performance:

Lower than expected

## EVALUATION

IPCS did not achieve this outcome measure.

## ADDITIONAL EVIDENCE

Although, the ELA effect size dipped in 2014-15, we anticipate better results using the 2015-16 test results.

### English Language Arts Comparative Performance by School Year

School Year	Grades	Percent Eligible for Free Lunch/ Economically Disadvantaged	Number Tested	Actual	Predicted	Effect Size
2012-13	5-6	85.6	171	14.0	17.2	-0.24
2013-14	5-7	90.3	239	15.7	15.3	0.05
2014-15	5-8	78	301	13.4	20.5	-0.51

#### Goal 1: Growth Measure<sup>5</sup>

Each year, under the state's Growth Model, the school's mean unadjusted growth percentile in English language arts for all tested students in grades 4-8 will be above the state's unadjusted median growth percentile.

<sup>5</sup> See Guidelines for [Creating a SUNY Accountability Plan](#) for an explanation.

## METHOD

This measure examines the change in performance of the same group of students from one year to the next and the progress they are making in comparison to other students with the same score in the previous year. The analysis only includes students who took the state exam in 2014-15 and also have a state exam score from 2013-14 including students who were retained in the same grade. Students with the same 2013-14 score are ranked by their 2014-15 score and assigned a percentile based on their relative growth in performance (student growth percentile). Students' growth percentiles are aggregated school-wide to yield a school's mean growth percentile. In order for a school to perform above the statewide median, it must have a mean growth percentile greater than 50.

Given the timing of the state's release of Growth Model data, the 2015-16 analysis is not yet available. This report contains 2014-15 results, the most recent Growth Model data available.<sup>6</sup>

## RESULTS

The overall mean growth percentile for the 2015 administration of the NYS ELA exam is 46.4, below the statewide median of 50. Only eighth grade students demonstrated growth greater than 50 at 54.1.

2014-15 English Language Arts Mean Growth Percentile by Grade Level

Grade	Mean Growth Percentile	
	School	Statewide Median
5	41.5	50.0
6	38.7	50.0
7	49.8	50.0
8	54.1	50.0
All	<b>46.4</b>	50.0

## EVALUATION

IPCS did not achieve this outcome measure.

## ADDITIONAL EVIDENCE

Although the 2014-15 year shows a decline in growth, 2015-16 MGPs should improve because scores increased. Overall the students in grades 6-8 who also have a score from 2015, improved the percent at proficiency from 9 percent to 27 percent in 2016. Additionally, the eighth grade students showed the largest improvement from 2015 with 52% increasing by 1 performance level and 6% increased by two performance levels.

English Language Arts Mean Growth Percentile by Grade Level and School Year

Grade	Mean Growth Percentile			
	2012-13	2013-14	2014-15	Statewide Median
5	46.8	46.6	41.5	50.0

<sup>6</sup> Schools can acquire these data from the NYSED's Business Portal: [portal.nysed.gov](http://portal.nysed.gov).

## ENGLISH LANGUAGE ARTS

6	53	57.04	38.7	50.0
7		56.6	49.8	50.0
8			54.1	50.0
All	<u>50.1</u>	<u>53.7</u>	<u>46.4</u>	50.0

### SUMMARY OF THE ENGLISH LANGUAGE ARTS GOAL

IPCS introduced many new programs in 2015-16 and the ELA proficiency levels demonstrated results, with overall scores increasing 11 percentage points over last year. There were some differences in the testing and student preparation that contributed to the improvements. The State gave all students extended time, which allowed students the opportunity to finish the writing portion of the exam. There was a reduction in the number of writing prompts on the state exam contributed to less student fatigue during the testing cycle. The students entered the exam very confidently as there was extensive work done around close reading & writing. There was more evidence entering the test that students were prepared exemplifying stronger close reading practices.

Although several outcome measures were not met, we are optimistic that some of the methods are working. IPCS continues to outperform the local district and achieved the comparative measure.

Type	Measure	Outcome
Absolute	Each year, 75 percent of all tested students who are enrolled in at least their second year will perform at proficiency on the New York State English language arts exam for grades 3-8.	Did Not Achieve
Absolute	Each year, the school's aggregate Performance Level Index (PLI) on the state English language arts exam will meet that year's Annual Measurable Objective (AMO) set forth in the state's NCLB accountability system.	Did Not Achieve
Comparative	Each year, the percent of all tested students who are enrolled in at least their second year and performing at proficiency on the state English language arts exam will be greater than that of students in the same tested grades in the local school district.	Achieved
Comparative	Each year, the school will exceed its predicted level of performance on the state English language arts exam by an Effect Size of 0.3 or above (performing higher than expected to a small degree) according to a regression analysis controlling for economically disadvantaged students among all public schools in New York State. (Using 2013-14 school district results.)	Did Not Achieve
Growth	Each year, under the state's Growth Model the school's mean unadjusted growth percentile in English language arts for all tested students in grades 4-8 will be above the state's unadjusted median growth percentile.	Did Not Achieve

### ACTION PLAN

Invictus Preparatory Charter School will continue its focus on delivering rigorous instruction that ensures student mastery of English Language Arts standards. For our scholars to continue succeeding in an accountability-driven learning environment that demands high quality ELA

instruction, teachers will backwards map (2005) what students need to learn, know, and be able to do at the end of each grade.

Teachers will then determine which learning activities and assignments will ensure student mastery of unit-based and school-wide goals. When standards are not mastered, school leaders and teachers will immediately analyze multiple measures of student data (i-Ready scores, interim assessments, student work, etc.), create differentiated teacher action plans, readjust instruction to address learning gaps, reteach lessons using a small-group and individualized pedagogical approach and, eventually, reassess students toward skills mastery.

We will continue to focus on providing all students with the opportunity to build their literacy competence through access to standards-aligned curriculum in a rigorous state of the art classroom that gives our students daily access to technology. We have had great successes increasing our literacy trajectory across the school, but we know that our work is not completed. Please note the strategic interventions below that we will continue to implement here at IPCS.

### Strategic Interventions:

- Daily Targeted 70-Minute Intervention
- Saturday School Intervention
- Targeted Skill Focus Wednesdays
- Explicitly Instructing 55 Critical Words in all classrooms
- Intentional Focus on Close Reading Strategies

### Enhanced Support:

- Administration of quarterly assessments beginning at the start of the school year allow teachers to create a specialized differentiation plan for enhanced classroom support
- Scope and Sequences were created to determine optimal instructional pacing
- Teachers design standards-based lessons and unit plans with the ongoing support of the Director of Humanities and Humanities Department Chairperson
- Ongoing data collection, tracking, and analysis for the purpose of making informed instructional decisions around practice
- Teachers will continue to meet weekly to address student concerns around behavior, attendance, or academics
- Students will be allowed continued access to a robust RTI Program designed to increase comprehension and fluency

The ELL Program has been expanded to better service our increased student population.

## MATHEMATICS

### Goal 2: Mathematics

Students will demonstrate proficiency in mathematics.

#### BACKGROUND

As IPCS employed a strategic school-wide turnaround plan in the 2015-2016 school year, we sought after more experienced mathematics teachers and developed a plan to provide them with targeted, differentiated support, ongoing professional development, and weekly co-planning time.

At the end of the 2014-2015 school year, IPCS also purchased a new school-wide, research-based mathematics curriculum, GoMath, which was introduced during the 2015-2016 school year.

Previously, IPCS added leadership and teaching positions to our mathematics team. Some of these additional hires included the following:

- STEM Department Chair
- Data & Assessment Coordinator
- Three (3) newly hired mathematics teachers (general education) for fifth, sixth and seventh grades
- Mathematics Intervention Teachers

Math teachers participated in the Professional Development Summer Institute in August 2015, in preparation for the 2015-2016 school year, and fully participated in instructional shift influenced by Robert J. Marzano and Learning Sciences International. The work completed during Summer Institute provided mathematics teachers with a framework for the upcoming turnaround work ahead. Teachers received various new strategies but struggled with applying them in their classrooms.

In the 2015-2016 school year, teachers had approximately twelve hours per week for individual and common planning time, along with professional development. Historically, teachers received one planning period per day. However, IPCS quickly identified that more planning time required more guidance, even for teachers with many years of experience.

Mathematics teacher retention proved itself to be a challenge area early on, as two teachers (one core content teacher and one interventionist) resigned at the beginning of the school year. Finding quality replacements proved to be difficult; as a result, the STEM Department Chairperson taught cohorts, and other team members took on additional responsibilities to meet instructional needs.

Historically, newly enrolled fifth graders have arrived at Invictus Prep substantially below grade level, and last year was no exception. Therefore, tiered support for students with 140 minutes of extra math intervention per week became part of our programming. Our Saturday School, which runs from January through April, provided additional support for students at risk of academic failure. We saw some gains in mathematics; however, we were disappointed with the school's overall performance this year.

#### Goal 2: Absolute Measure

Each year, 75 percent of all tested students enrolled in at least their second year will perform at proficiency on the New York State mathematics examination for grades 3-8.

# MATHEMATICS

## METHOD

The school administered the New York State Testing Program mathematics assessment to students in 5<sup>th</sup> through 8<sup>th</sup> grade in April 2016. Each student's raw score has been converted to a grade-specific scaled score and a performance level.

The table below summarizes participation information for this year's test administration. The table indicates total enrollment and total number of students tested. It also provides a detailed breakdown of those students excluded from the exam. Note that this table includes all students according to grade level, even if they have not enrolled in at least their second year.

2015-16 State Mathematics Exam  
Number of Students Tested and Not Tested

Grade	Total Tested	Not Tested <sup>7</sup>				Total Enrolled
		IEP	ELL	Absent	Refused	
5	28					28
6	92				1	93
7	77				3	80
8	91			1	2	98
All	288			1	6	299

## RESULTS

Cohort students performed slightly better than all students on the 2016 NYS Math exam with 16 percent of students enrolled in at least their second year at IPCS scoring at levels 3 and 4, versus 15 percent of all students.

Performance on 2015-16 State Mathematics Exam  
By All Students and Students Enrolled in At Least Their Second Year

Grades	All Students		Enrolled in at least their Second Year	
	Percent Proficient	Number Tested	Percent Proficient	Number Tested
5	21%	28	0%	3
6	7%	92	5%	44
7	19%	77	21%	63
8	18%	91	19%	86
All	<b>15%</b>	288	<b>16%</b>	196

<sup>7</sup> Students exempted from this exam according to their Individualized Education Program (IEP), because of English Language Learners (ELL) status, or absence for at least some part of the exam.

# MATHEMATICS

## EVALUATION

IPCS did not achieve this outcome measure.

## ADDITIONAL EVIDENCE

Unfortunately, math results have declined in 2015-16. Our fifth grade students entered with very low math skills. The teacher spent a lot of time addressing these deficit skills. There was priority placed on data, and responding to what we found. Explicit responses were made to student outcomes on the interim assessments and predictive exams and attention was paid to power standards and preparing students to close their achievement gaps. However, 4 percent of the 6<sup>th</sup> grade students who we also tested in 2015 as 5<sup>th</sup> graders moved up a performance level. Some 7<sup>th</sup> grade students also demonstrated improvement with 14 percent moving up a level and 24 percent of 8<sup>th</sup> grade students did the same.

Mathematics Performance by Grade Level and School Year

Grade	Percent of Students Enrolled in At Least Their Second Year Achieving Proficiency					
	2013-14		2014-15		2015-16	
	Percent	Number Tested	Percent	Number Tested	Percent	Number Tested
5	0%	6	0%	7	0%	3
6	44%	72	31%	49	5%	44
7	33%	66	11%	82	21%	63
8			40%	57	19%	86
All	<b>37%</b>	144	<b>24%</b>	195	<b>16%</b>	196

Mathematics Performance of Same Students Year to Year

Grade	2014-15	2015-16	Change (+/-)
5	14%		
6	29%	3%	-11
7	11%	13%	-16
8		18%	+7
All	18%	11%	-7

### Goal 2: Absolute Measure

Each year, the school's aggregate Performance Level Index ("PLI") on the State mathematics exam will meet the Annual Measurable Objective ("AMO") set forth in the state's NCLB accountability system.

## METHOD

The federal No Child Left Behind law holds schools accountable for making annual yearly progress towards enabling all students to be proficient. As a result, the state sets an AMO each year to

## MATHEMATICS

determine if schools are making satisfactory progress toward the goal of proficiency in the state’s learning standards in mathematics. To achieve this measure, all tested students must have a PLI value that equals or exceeds the 2015-16 mathematics AMO of 101. The PLI is calculated by adding the sum of the percent of all tested students at Levels 2 through 4 with the sum of the percent of all tested students at Levels 3 and 4. Thus, the highest possible PLI is 200.<sup>8</sup>

### RESULTS

The math performance level index calculates to 68.5, falling short of the target AMO of 95 for our school size.

Mathematics 2015-16 Performance Level Index (PLI)				
Number in Cohort	Percent of Students at Each Performance Level			
	Level 1	Level 2	Level 3	Level 4
288	46.5%	38.5%	10%	5%

  

PI	=	38.5	+	10	+	5	=	53.5
				10	+	5	=	<u>15</u>
						PLI	=	68.5

### EVALUATION

IPCS did not achieve this outcome measure.

#### Goal 2: Comparative Measure

Each year, the percent of all tested students who are enrolled in at least their second year and performing at proficiency on the state mathematics exam will be greater than that of all students in the same tested grades in the local school district.

### METHOD

A school compares the performance of tested students enrolled in at least their second year to that of all tested students in the surrounding public school district. Comparisons are between the results for each grade in which the school had tested students in at least their second year at the school and the total result for all students at the corresponding grades in the school district.<sup>9</sup>

### RESULTS

Overall, IPCS scholars in grades 5 through 8 outperformed the local district with 16 percent at levels 3 and 4 to their 15 percent.

<sup>8</sup> In contrast to NYSED’s Performance Index, the PLI does not account for year-to-year growth toward proficiency.

<sup>9</sup> Schools can acquire these data when the New York State Education Department releases its database containing grade level ELA and math test results for all schools and districts statewide. The NYSED announces the release of the data on its [News Release webpage](#).

## 2015-16 State Mathematics Exam Charter School and District Performance by Grade Level

Grade	Percent of Students at Proficiency			
	Charter School Students In At Least 2 <sup>nd</sup> Year		All NYC #19 District Students	
	Percent	Number Tested	Percent	Number Tested
5	0%	3	20%	1979
6	5%	44	16%	1629
7	21%	63	14%	1743
8	19%	86	11%	1622
All	<b>16%</b>	196	<b>15%</b>	6973

### EVALUATION

Invictus achieved this outcome measure.

### ADDITIONAL EVIDENCE

Invictus consistently outperforms the local district on the NYS math assessment.

## Mathematics Performance of Charter School and Local District by Grade Level and School Year

Grade	Percent of Students Enrolled in at Least their Second Year Who Are at Proficiency Compared to Local District Students					
	2013-14		2014-15		2015-16	
	Charter School	Local District	Charter School	Local District	Charter School	Local District
5	0%	24	0%	27%	0%	20%
6	44%	15	31%	14%	5%	16%
7	33%	14	11%	13%	21%	14%
8			40%	9%	19%	11%
All	<b>37%</b>	<b>18%</b>	<b>24%</b>	<b>16%</b>	<b>16%</b>	<b>15%</b>

### Goal 2: Comparative Measure

Each year, the school will exceed its predicted level of performance on the state mathematics exam by an Effect Size of 0.3 or above (performing higher than expected to a meaningful degree) according to a regression analysis controlling for economically disadvantaged students among all public schools in New York State.

### METHOD

The Institute conducts a Comparative Performance Analysis, which compares the school's performance to that of demographically similar public schools statewide. The Institute uses a regression analysis to control for the percentage of economically disadvantaged students among all public schools in New York State. The Institute compares the school's actual performance to the predicted performance of public schools with a similar concentration of economically

## MATHEMATICS

disadvantaged students. The difference between the school's actual and predicted performance, relative to other schools with similar economically disadvantaged statistics, produces an Effect Size. An Effect Size of 0.3, or performing higher than expected to a meaningful degree, is the requirement for achieving this measure.

Given the timing of the state's release of economically disadvantaged data and the demands of the data analysis, the 2015-16 analysis is not yet available. This report contains 2014-15 results, the most recent Comparative Performance Analysis available.

### RESULTS

The IPCS 2014-15 effect size in math is -0.04, yielding an overall comparative performance lower than expected.

*2014-15 Mathematics Comparative Performance by Grade Level*

Grade	Percent Economically Disadvantaged	Number Tested	Percent of Students at Levels 3&4		Difference between Actual and Predicted	Effect Size
			Actual	Predicted		
3						
4						
5	90.6	57	14	23.7	-9.7	-0.55
6	81.5	78	29	24.9	4.1	0.22
7	75.5	95	11	23.2	-12.2	-0.62
8	67.6	71	34	17.5	16.5	0.85
All	78.0	301	21.7	22.4	-0.7	-0.04

#### School's Overall Comparative Performance:

*Lower than expected*

### EVALUATION

IPCS did not achieve this outcome measure.

### ADDITIONAL EVIDENCE

The percent of economically disadvantaged students along with math results have been up and down the past three years.

*Mathematics Comparative Performance by School Year*

School Year	Grades	Percent Eligible for Free Lunch/ Economically Disadvantaged	Number Tested	Actual	Predicted	Effect Size
2012-13	5-6	85.6	171	18.1	18.6	-0.04
2013-14	5-7	90.3	239	35.6	20.6	0.85
2014-15	5-8	78.0	301	21.7	22.4	-0.04

## Goal 2: Growth Measure<sup>10</sup>

Each year, under the state’s Growth Model, the school’s mean unadjusted growth percentile in mathematics for all tested students in grades 4-8 will be above the state’s unadjusted median growth percentile.

## METHOD

This measure examines the change in performance of the same group of students from one year to the next and the progress they are making in comparison to other students with the same score in the previous year. The analysis only includes students who took the state exam in 2014-15 and also have a state exam score in 2013-14 including students who were retained in the same grade. Students with the same 2013-14 scores are ranked by their 2014-15 scores and assigned a percentile based on their relative growth in performance (student growth percentile). Students’ growth percentiles are aggregated school-wide to yield a school’s mean growth percentile. In order for a school to perform above the statewide median, it must have a mean growth percentile greater than 50.

Given the timing of the state’s release of Growth Model data, the 2015-16 analysis is not yet available. This report contains 2014-15 results, the most recent Growth Model data available.<sup>11</sup>

## RESULTS

The overall mean growth percentile for the 2015 administration of the NYS math exam is 44.8, below the statewide median of 50. Only fifth grade students demonstrated growth greater than 50 at 53.7.

2014-15 Mathematics Mean Growth Percentile by Grade Level

Grade	Mean Growth Percentile	
	School	Statewide Median
4		50.0
5	53.7	50.0
6	49.8	50.0
7	32.4	50.0
8	47.8	50.0
All	<b>44.8</b>	50.0

## EVALUATION

IPCS did not achieve this outcome measure.

<sup>10</sup> See Guidelines for Creating a SUNY Accountability Plan for an explanation.

<sup>11</sup> Schools can acquire these data from the NYSED’s business portal: [portal.nysed.gov](http://portal.nysed.gov).

## ADDITIONAL EVIDENCE

Math growth declined in 2014-15 in terms of mean growth percentiles in each grade.

Mathematics Mean Growth Percentile by Grade Level and School Year

Grade	Mean Growth Percentile			
	2012-13	2013-14	2014-15	Statewide Median
5	65	66.8	53.7	50.0
6	75.4	80	49.8	50.0
7		62.0	32.4	50.0
8			47.8	50.0
All	<b>70.6</b>	<b>70.4</b>	<b>44.8</b>	50.0

## SUMMARY OF THE MATHEMATICS GOAL

Overall, math progress toward the goals was a bit disappointing in 2015-16. While we saw much improvement in ELA, the math declined. It is difficult to implement many new systems at once and the math scores are evidence that we need to further focus on math instruction. Recognizing that this was a problematic area all year, the Invictus leadership team put together a comprehensive achievement plan to address the areas of need. In addition, internal changes have been made to address the concerns in this area. Details follow in the Action Plan section. Although the math performance in 2015-16 dipped, Invictus consistently outperforms the local district in both math and ELA.

Type	Measure	Outcome
Absolute	Each year, 75 percent of all tested students who are enrolled in at least their second year will perform at proficiency on the New York State mathematics exam for grades 3-8.	<b>Did Not Achieve</b>
Absolute	Each year, the school's aggregate Performance Level Index (PLI) on the state mathematics exam will meet that year's Annual Measurable Objective (AMO) set forth in the state's NCLB accountability system.	<b>Did Not Achieve</b>
Comparative	Each year, the percent of all tested students who are enrolled in at least their second year and performing at proficiency on the state mathematics exam will be greater than that of students in the same tested grades in the local school district.	<b>Achieved</b>
Comparative	Each year, the school will exceed its predicted level of performance on the state mathematics exam by an Effect Size of 0.3 or above (performing higher than expected to a small degree) according to a regression analysis controlling for economically disadvantaged students among all public schools in New York State. (Using 2013-14 school district results.)	<b>Did Not Achieve</b>
Growth	Each year, under the state's Growth Model the school's mean unadjusted growth percentile in mathematics for all tested students in grades 4-8 will be above the state's unadjusted median growth percentile.	<b>Did Not Achieve</b>

## ACTION PLAN

Invictus Preparatory Charter School has developed a strategic plan to track and monitor the progress and growth of the mathematics department. Using the instructional reports provided by NY State, we were able to identify our areas of greatest need, and build a map aligned to the Common Core curriculum to address these deficiencies. This year, we are more stringent around the responsibility of using our curriculum and tracking data on a weekly basis, so that instruction is guided by how much our students are learning and mastering. Our school-wide mathematics plan requires that all teachers urgently embrace the responsibility of developing both numeracy and literacy within our students. This process is closely overseen by our newly placed Director of STEM, Data and Assessment.

To combat the challenge of new entrants below grade level, during the first quarter of the 2016-2017 school year, our fifth graders are receiving 140 minutes of intensive daily mathematics instruction to cover procedural and conceptual knowledge required for middle school math. This year's approach to addressing deficiencies includes the implementation of common planning time for our intervention and mathematics teams. These teams meet regularly to address how to close learning gaps highlighted through our school-wide diagnostic test (i-Ready), Interim Assessments (aligned to our pacing guides), and formative assessments administered in class.

As we move forward in our partnership with Robert J. Marzano and Learning Sciences International, we are choosing two to three skills to enhance the teaching and learning experiences for teachers and students alike, by prioritizing feedback and coaching on implementation specifically regarding those skills.

This year's target is to double our mathematics proficiency performance from 15% to 30%. To improve academic performance based on the results associated with this goal, we will focus on strategic interventions, including enhanced support and program revisions for explicit grades, cohorts and sub-populations. Using the GoMath curriculum and professional development, IPCS mathematics pacing guides, NYS Common Core standards, and our scope and sequence, the mathematics department will execute the following interventions with high fidelity to realize our end-of-year student achievement goals:

### Strategic Interventions

- In September 2016, scholars will take a beginning-of-year diagnostic assessment. Data analysis will inform the construction of a customized plan to address how to close learning gaps.
- We will use GoMath diagnostic assessments as a multiple-measure baseline to gauge where students are at the beginning of the school year.
- We will use i-Ready assessment data to drive and readjust instruction and inform intervention instruction.
- We will employ GoMath pre- and post-assessments, unit assessments, and quizzes.
- Exit Ticket data will be tracked by standard on a weekly basis at the rate of 2-3 times per week, as lessons are completed.
- Homework will be assigned and graded, and teachers will address misconceptions. (Homework Rotation: assigned Friday, collected Monday, reviewed during Skills Wednesday, returned on Wednesday, cycle repeats on Friday)

## MATHEMATICS

- Flash Cards will be utilized in hallways to review skills and concepts during student transitions (entering and/or exiting rooms, waiting on lunch line, etc.)
- Mad Minute worksheets will be completed during breakfast for Badger Bucks.
- Focus on problem-solving Tier 2 and Tier 3 words are used in lesson plans, then incorporated into math literacy texts.

### **Enhanced Support**

- The STEM Department Chairperson will prepare pacing guides per grade level and math subject with designated dates, objectives, and standards for quarterly instruction.
- Teachers engage in weekly one-on-one planning meetings with the STEM Department Chairperson to receive direct coaching.
- Teachers meet weekly with the Director of STEM, Data and Assessment to discuss progress toward goals, pacing, and how to respond to student performance data.
- Teachers will participate in monthly Math Professional Development conducted by the STEM Department Chairperson, with a focus on building a school wide Math PLC.

### **Programmatic Revisions**

- Data components of the GoMath curriculum will be included in the pacing guide.
- To enhance students' problem-solving skills using rigorous questioning, a school-wide strategy ("KEYS & SAE") was designed to guide students to close read math problems and develop constructed responses, and will be introduced and consistently revisited throughout math classes.
- STEM connections will be outlined in the pacing guide and highlighted for teachers within the mathematics curriculum. Teachers will have an opportunity to incorporate their own ideas of STEM connections related to the math unit they're covering.
- Teachers will incorporate the use of instructional technology to enhance mathematical concepts across the grade levels.
- Teachers will incorporate Data Wise to focus on the Problem of Practice as an effort to reflect, revise, and enhance their practice.

## SCIENCE

### Goal 3: Science

Students will demonstrate proficiency in science.

### BACKGROUND

Invictus Preparatory Charter School began its inception with half-year rounds of science. In preparation for the 2014-2015 school year, Interactive Science curriculum was purchased. Intensive preparations and monitoring in preparation for the first graduating class to succeed on the exam came through intense labs and a consistent lesson plan submission, review and feedback cycle by the Director of Curriculum and Instruction of STEM and Special Education.

After the success in 2014-2015, a STEM Department Chairperson was hired for school-year 2015-2016 however challenges in teacher performance, retention and coaching resulted in an underprepared cohort. While New York City released a new scope and sequence for grades 6 through 8, the Science department struggled with appropriate alignment using the curriculum, already purchased.

To set up Invictus for success this year, a more strategic approach to monitoring and tracking data has been developed. To begin, the curriculum was scrubbed for alignment and best fit for execution, by the Director of STEM, Data and Assessment. New scopes and sequences were determined for each grade level and methods of tracking data were identified. We are very confident that we will see increases in this area in the upcoming school term.

### Goal 3: Absolute Measure

Each year, 75 percent of all tested students enrolled in at least their second year will perform at proficiency on the New York State science examination.

### METHOD

The school administered the New York State Testing Program science assessment to students in 8<sup>th</sup> grade in spring 2016. The school converted each student's raw score to a performance level and a grade-specific scaled score. The criterion for success on this measure requires students enrolled in at least their second year to score at proficiency.

### RESULTS

Cohort students performed slightly better than all students on the 2016 NYS Science 8 exam with 24 percent of students enrolled in at least their second year at IPCS scoring at levels 3 and 4, versus 22 percent of all students.

# SCIENCE

## Charter School Performance on 2015-16 State Science Exam By All Students and Students Enrolled in At Least Their Second Year

Grade	Percent of Students at Proficiency			
	All Students		Charter School Students In At Least 2 <sup>nd</sup> Year	
	Percent Proficient	Number Tested	Percent Proficient	Number Tested
8	<b>22%</b>	94	<b>24%</b>	88

### EVALUATION

IPCS did not achieve this outcome measure.

### ADDITIONAL EVIDENCE

Grade 8 student science scores dropped significantly in 2015-16, causing the team at IPCS to re-evaluate the delivery of science instruction.

## Science Performance by Grade Level and School Year

Grade	Percent of Students Enrolled in At Least Their Second Year at Proficiency					
	2013-14		2014-15		2015-16	
	Percent Proficient	Number Tested	Percent	Number Tested	Percent Proficient	Number Tested
8			<b>74%</b>	57	<b>24%</b>	88

### Goal 3: Comparative Measure

Each year, the percent of all tested students enrolled in at least their second year and performing at proficiency on the state science exam will be greater than that of all students in the same tested grades in the local school district.

### METHOD

The school compares tested students enrolled in at least their second year to all tested students in the surrounding public school district. Comparisons are between the results for each grade in which the school had tested students in at least their second year and the results for the respective grades in the local school district.

### RESULTS

District results pending.

## 2015-16 State Science Exam Charter School and District Performance by Grade Level

Grade	Percent of Students at Proficiency	
	Charter School Students In At Least 2 <sup>nd</sup> Year	All NYC #19 District Students

## SCIENCE

	Percent Proficient	Number Tested	Percent Proficient	Number Tested
8	24%	88	Pending	

### EVALUATION

District results pending.

#### Science Performance of Charter School and Local District by Grade Level and School Year

Grade	Percent of Charter School Students at Proficiency and Enrolled in At Least their Second Year Compared to Local District Students					
	2013-14		2014-15		2015-16	
	Charter School	Local District	Charter School	Local District	Charter School	Local District
8			74%	35%	24%	Pending

### SUMMARY OF THE SCIENCE GOAL

Unfortunately, NYS Science 8 results were disappointing in 2015-16.

Type	Measure	Outcome
Absolute	Each year, 75 percent of all tested students enrolled in at least their second year will perform at proficiency on the New York State examination.	Did Not Achieve
Comparative	Each year, the percent of all tested students enrolled in at least their second year and performing at proficiency on the state exam will be greater than that of all students in the same tested grades in the local school district.	N/A

### ACTION PLAN

Invictus Preparatory Charter School has developed a strategic plan to track and monitor the progress and growth of the Science department using a standards-based approach. This year, we are more stringent around the responsibility of using our curriculum and tracking data on a weekly basis for 8<sup>th</sup> grade students, specifically. Using the curriculum we have previously purchased – Interactive Science – the continuum from grade 5 through grade 8 has been designed so that there is a clear starting and ending point for each grade level. While grade 5 remains a part of the elementary curriculum, grades 6, 7 and 8 focus on earth, physical and life sciences, respectively. Our school-wide science plan has produced urgency for all teachers to embrace the responsibility of delving into informational texts using the same strategies as our Humanities department, and of exploring mathematical concepts that are connected to science standards.

This year, a Director of STEM, Data and Assessment was transitioned to help oversee this process, creating the responsibility of laser-focused attention, tracking and monitoring across all grade levels.

This year's target is to increase our proficiency performance from 22% to 70%. To improve academic performance based on the results associated with this goal, the following interventions,

supports and revisions will be implemented with high fidelity to realize our end-of-year student achievement goals:

### **Strategic Interventions**

- In September 2016, 8<sup>th</sup> grade scholars will take a beginning-of-year diagnostic assessment for the NYS Grade 8 Intermediate-Level Science Test. The data will be analyzed to ascertain where students are and build a customized plan to address how to close learning gaps.
- Employ Interactive Science pre- and post-assessments, unit assessments, and quizzes.
- Exit Ticket data will be tracked by standard on a weekly basis at the rate of 2-3 times per week, as lessons are completed.
- Homework will be assigned, graded, and misconceptions will be addressed. (Homework Rotation: Assigned Friday, Collected Monday, Reviewed during Skills Wednesday, Returned on Wednesday, Cycle repeats on Friday)
- Skills Wednesday will focus on performance assessment tasks for data tracking and response to student performance

### **Enhanced Support**

- The STEM Department Chairperson delivers lesson plan feedback on a weekly basis around concepts, student engagement and lesson execution.
- Each week, teachers engage in one-on-one planning meetings and receive direct coaching from the STEM Department Chairperson
- Teachers meet weekly with the Director of STEM, Data and Assessment to discuss progress toward goals, pacing, and how to respond data representing students' performance on taught standards
- Teachers will participate in monthly Science PD conducted by the Department Chair with a focus on increasing student engagement and retention of science concepts.

### **Programmatic Revisions**

- Science classrooms will engage in a weekly lab focus that connects concepts to a performance task on the Intermediate Science Exam, at every grade level.
- Data components of the Interactive Science curriculum will be used and included in the pacing guide
- A focus on close reading using PLORES, and problem-solving using rigorous questions and practice with a school-wide strategy "KEYS & SAE," applying close reading math problems and develop constructed responses will be introduced and visited consistently throughout math classes
- STEM connections will be outlined in the pacing guide and highlighted for teachers within the curriculum. Teachers will have an opportunity to incorporate their own ideas of STEM connections related to the Unit they're covering.
- Teachers will incorporate the use of instructional technology to enhance science concepts across the grade levels.

## NCLB

### Goal 4: NCLB

The school will make Adequate Yearly Progress.

#### Goal 4: Absolute Measure

Under the state’s NCLB accountability system, the school’s Accountability Status is in good standing: the state has not identified the school as a Focus School nor determined that it has met the criteria to be identified as school requiring a local assistance plan.

### METHOD

Because *all* students are expected to meet the state's learning standards, the federal No Child Left Behind legislation stipulates that various sub-populations and demographic categories of students among all tested students must meet state proficiency standards. New York, like all states, established a system for making these determinations for its public schools. Each year the state issues School Report Cards. The report cards indicate each school’s status under the state’s No Child Left Behind (“NCLB”) accountability system.

### RESULTS

IPCS is in Good Standing.

### EVALUATION

IPCS achieved this measure.

### ADDITIONAL EVIDENCE

IPCS has been in good standing since its inception.

NCLB Status by Year

Year	Status
2013-14	Good Standing
2014-15	Good Standing
2015-16	Good Standing