

# 2015–2016 Programmatic Profile and Educational Performance

Report Date: October 2016



Milwaukee Academy of Science

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	i
I. INTRODUCTION .....	1
II. PROGRAMMATIC PROFILE .....	2
A. Description and Philosophy of Educational Methodology.....	2
1. Mission and Philosophy.....	2
2. Instructional Design .....	3
B. School Structure .....	5
1. Board of Directors .....	5
2. Areas of Instruction .....	7
3. Teacher Information.....	9
4. Hours of Instruction/School Calendar .....	11
5. Parental Involvement.....	11
6. Waiting List .....	12
7. Discipline Policy.....	13
8. Graduation Information.....	14
C. Student Population .....	16
D. Activities for Continuous School Improvement.....	20
III. EDUCATIONAL PERFORMANCE .....	22
A. Attendance.....	22
B. Parent Participation .....	24
C. Special Education Student Records.....	24
D. Local Measures of Educational Performance.....	25
1. Primary/Elementary Academies.....	25
a. Literacy .....	25
i. PALS for K4 Students .....	25
ii. MAP Reading Test for K5 Through Fifth Graders.....	26
b. Mathematics.....	29
i. Math Skills Assessment for K4 Students .....	29
ii. MAP Math Test for K5 Through Fifth Graders.....	30
c. Writing.....	31
d. IEP Goals for Special Education Students .....	32
2. Junior Academy .....	33
a. MAP Reading Assessment for Sixth, Seventh, and Eighth Graders .....	33
b. MAP Math Assessment for Sixth, Seventh, and Eighth Graders .....	34
c. Writing.....	35
d. IEP Goals for Special Education Students .....	36
3. High School .....	37
a. Literacy Progress Based on the Scholastic Reading Inventory.....	37
b. Mathematics Progress Based on the Comprehensive Math Assessment .....	38
c. Writing.....	38
d. IEP Goals for Special Education Students .....	39

## TABLE OF CONTENTS (continued)

E.	Additional Requirements for High School Students .....	39
1.	Graduation Plans .....	40
2.	High School Graduation Requirements .....	41
F.	Standardized Measures of Educational Performance .....	42
1.	Primary/Elementary Academies and Junior Academy .....	42
a.	PALS for K4 Through Second Graders .....	42
i.	PALS-PreK .....	44
ii.	PALS-K and PALS 1–3 .....	44
b.	Wisconsin Forward Exam for Third Through Eighth Graders .....	46
2.	High School .....	50
a.	Aspire for Ninth and Tenth Graders .....	51
b.	Wisconsin Forward Exam for Tenth Graders .....	51
c.	ACT for Eleventh and Twelfth Graders .....	51
G.	Multiple-Year Student Progress .....	53
1.	Second-Grade Performance Based on PALS .....	54
2.	Fourth- Through Eighth-Grade Performance on the Wisconsin Forward Exam .....	55
3.	Progress From the Spring 2015 Aspire to the Spring 2016 Aspire .....	55
a.	Students at or Above Benchmark on the Spring 2015 Aspire .....	56
b.	Students Below Benchmark on the Spring 2015 Aspire .....	57
4.	Benchmark Progress From the Spring 2015 Aspire to the Spring 2016 ACT .....	57
H.	CSRC School Scorecard .....	58
I.	DPI School Report Card .....	60
IV.	SUMMARY AND RECOMMENDATIONS .....	60

## APPENDICES

- Appendix A: Contract Compliance Chart
- Appendix B: Student Learning Memorandums
- Appendix C: Trend Information
- Appendix D: CSRC 2015–16 School Scorecards
- Appendix E: Teacher Interview Results
- Appendix F: Parent Survey Results
- Appendix G: Student Survey Results
- Appendix H: Board Interview Results

This report includes text from Milwaukee Academy of Science's student/parent handbook and/or staff handbook. CRC obtained permission from the school to use this text for the purposes of this report.

**EXECUTIVE SUMMARY  
for  
Milwaukee Academy of Science  
2015–16**

This is the eighth annual report to describe the operation of the Milwaukee Academy of Science (MAS) as a City of Milwaukee–chartered school. It is a result of intensive work undertaken by the City of Milwaukee Charter School Review Committee (the CSRC), school staff, and the NCCD Children’s Research Center (CRC). Based on the information gathered and discussed in the attached report, CRC has reached the following findings.

**I. CONTRACT COMPLIANCE SUMMARY<sup>1</sup>**

Two provisions were not met this year: One of the instructional staff did not hold a Wisconsin Department of Public Instruction (DPI) license or permit. Two teachers had applications pending with DPI, but at the end of the school year neither of these teachers had yet been granted a teaching license. Additionally, the year-to-year expectation for second graders on the PALS was not achieved.

**II. PERFORMANCE CRITERIA**

**A. Local Measures**

1. Primary Measures of Educational Progress

The CSRC requires each school to track student progress in reading, writing, mathematics, and individualized education program (IEP) goals throughout the year to identify students in need of additional help and to assist teachers in developing strategies to improve the academic performance of all students.

This year, MAS’s primary local measures of academic progress resulted in the following outcomes.

- *Primary/Elementary Academies (K4 Through Fifth Grade)*
  - » Of K4 students, 88 completed the fall and spring Phonological Awareness Literacy Screening (PALS) PreK assessments; at the time of the spring test, 95.5% of those students were at or above the developmental range for five or more of seven completed tasks. The school’s goal was 85.0%.
  - » Of K5 through fifth graders, 472 completed the fall and spring Measures of Academic Progress (MAP) reading tests. Overall, 64.4% of those students showed progress on the spring test. The school’s goal was 70.0%.

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<sup>1</sup> See Appendix A for a list of each education-related contract provision, page references, and a description of whether each provision was met.

- » Of K4 students, 90 completed fall and spring assessments based on the SRA Real Math curriculum. Most (88.9%) of those students acquired at least 80.0% of the math competencies designated as benchmarks. The school's goal was 80.0%.
- » Of K5- through fifth-grade students, 470 completed the fall and spring MAP math tests. Overall, 64.0% of those students showed progress on the spring test. The school's goal was 70.0%.
- » Of 207 third- through fifth-grade students assessed in writing, 74.9% achieved a score of 18 or more points, meeting in significant part the school's goal of 75.0%.
- » Of 43 primary/elementary academy students with IEP goals reviewed during the year, 93.0% met one or more of their goals this year. The school's goal was 80.0%.
- *Junior Academy (Sixth Through Eighth Grades)*
  - » Of sixth- through eighth-grade students, 208 completed the fall and spring MAP reading tests. Overall, 81.3% of those students showed progress on the spring test. The school's goal was 73.0%.
  - » Of sixth- through eighth-grade students, 207 completed the fall and spring MAP math tests. Overall, 85.0% of those students showed progress on the spring test. The school's goal was 73.0%.
  - » A total of 204 sixth- through eighth-grade students were assessed in writing. More than three quarters (79.9%) of those students received a score of 18 or more; the school's goal was 73.0%.
  - » Of 15 junior academy students with IEP goals reviewed during the year, 93.3% met one or more of their goals this year. The school's goal was 80.0%.
- *High School (Ninth Through Twelfth Grades)*
  - » Of 164 ninth- through twelfth-grade students who completed fall and spring Scholastic Reading Inventory assessments, 60.4% showed improvement from fall to spring; the school's goal was 60.0%.
  - » Of 161 ninth- through twelfth-grade students who completed final math assessments for the math course in which they were enrolled, 49.1% scored 70.0% or better on the end-of-year assessment. The school's goal was 65.0%.
  - » Of 166 high school students who were enrolled for the entire school year and completed the spring writing assessments, 73.5% received a score of 18 or higher in the spring; the school's goal was 65.0%.

- » Of 16 high school students with IEP goals reviewed during the year, 93.8% met one or more of their goals this year. The school's goal was 80.0%.
- » Graduation plans were developed for all 169 high school students enrolled at the end of the school year. The school's goal was to develop a plan for all students.
- » Ninth-grade students earned an average of 6.5 credits; tenth-grade students accumulated an average of 13.1 credits; eleventh-grade students accumulated an average of 20.0 credits; and twelfth-grade students accumulated, on average, 26.7 credits. A large majority (144, or 85.2%) of students enrolled at the end of the school year were promoted to the next grade or graduated from high school this year.

## 2. Secondary Measures of Educational Outcomes

To meet City of Milwaukee requirements, MAS identified measurable outcomes in the following secondary areas of academic progress.

- Attendance
- Parent participation
- Special education student records
- Testing of new enrollees
- High school graduation plans

The primary/elementary academies met two of their three internal goals (parent participation and special education student records); the junior academy met all three of its internal goals (attendance, parent participation, and special education student records); and the high school met all five of its internal goals.

## B. **Year-to-Year Academic Achievement on Standardized Tests**

MAS administered all required standardized tests noted in its contract with the City of Milwaukee.

- Year-to-year progress for first- to second-grade students: Fifty-two students completed the PALS spring assessment in 2014–15 as first-grade students and in 2015–16 as second-grade students. Thirty-two of those students were at or above the spring summed score benchmark as first-grade students; 20 (62.5%) of these 32 students remained at or above the summed score benchmark in the spring of 2016 as second-grade students.
- Year-to-year progress for third- through eighth-grade students: Data regarding year-to-year academic achievement on the DPI standardized tests for third- through eighth-grade students are not available this year due to this being the first year or application of the Wisconsin Forward Exam to third- through eighth-grade students.

- 2015 Aspire to 2016 Aspire:
  - » Of 16 students at or above the English benchmark in 2015, 81.3% maintained benchmark in 2016, and 70.0% of 10 students at or above the composite benchmark in 2015 maintained benchmark in 2016. There were too few students at or above benchmark on the other subtests to include results this year.
  - » More than 60.0% of students progressed on the English subtest and the composite score from 2015 to 2016, and more than 50% progressed on the reading and science subtests. Less than half progressed on the Aspire math subtest.
- Aspire to ACT: Progress from Aspire to ACT, as defined by the CSRC expectations set for PLAN to ACT, cannot be validly measured at this time. Therefore, progress from tenth to eleventh grade was not measured this year.

## **C. CSRC School Scorecard**

On the CSRC scorecard, the school scored 81.2% for K4 through eighth grade and 82.7% for the high school. The weighted overall score was 81.4%, as compared to 79.4% for the 2014–15 school year.

## **III. SURVEY/INTERVIEW RESULTS**

Every other year, CRC conducts interviews or surveys with parents, board members, and teachers to obtain feedback on their perceptions about the school. Some key results include the following.

- There were 243 surveys completed, representing 38.1% of 638 families.
  - » Most (92.2%) parents would recommend this school to other parents.
  - » A majority (86.8%) of parents rated the school's overall contribution to their child's learning as "excellent" or "good."
- Twenty board members participated in interviews.
  - » Most (85.0%) rated the school as "excellent" or "good" overall.
  - » The main suggestions made by board members for improving the school were to improve teacher-parent communication, implement a targeted intervention program for students who are not succeeding, increase community connections, and provide social services for students at the school.
- Twenty-six instructional staff participated in interviews.

- » Three (11.5%) teachers listed the school's progress toward becoming a high-performing school as "excellent," and 12 (46.2%) listed the school's progress as "good."
- » One (3.8%) teacher rated the students' academic progress as "excellent," and 17 (65.4%) rated academic progress as "good."
- All seventh, eighth, eleventh, and twelfth graders who were present on the day the survey was administered participated; 171 students completed the survey.
  - » More than 90% of students who responded indicated they had improved in reading, and 82.5% of students who responded indicated they had improved in math at the school;
  - » Nearly two thirds (64.3%) said they felt safe in school; and
  - » Three quarters (73.9%) of 46 high school students said they plan to enroll in a postsecondary program after high school.

## **IV. RECOMMENDATIONS FOR SCHOOL IMPROVEMENT**

The school addressed all of the recommendations in its 2014–15 programmatic profile and educational performance report. To continue a focused school improvement plan, CRC reviewed MAS's academic achievement data for the last school year and solicited input from school staff to formulate these recommendations for the 2016–17 year.

### **A. Primary/Elementary Academies**

- Continue to build on the creation/utilization of formative assessments that are aligned to the Common Core standards and more effectively link outcomes to grading practices as a specific strategy to improve the performance of students in a more significant manner.
- Improve and expand the array of appropriate math interventions for students at all grade levels.

### **B. Junior Academy**

- Utilize ACT Aspire interim data to strengthen and improve the science curriculum and enhance the rigor of content emphasized within the science classes.
- Enhance students' ownership of their own learning. Engage students in tracking of their own competencies and utilize more consistent classroom protocols for daily informal assessments of skill and concept mastery.

### **C. High School**

- Increase utilization of formative assessments to enable students to receive daily feedback from staff on their learning accomplishments.
- Strengthen collaboration between teachers within their departments and create structures for department staff to share and monitor evidence of student learning.

### **V. RECOMMENDATION FOR ONGOING MONITORING**

This is MAS's eighth year as a City of Milwaukee charter school. Due to the school's contract compliance status and combined scorecard rating of 81.4%, CRC recommends that the school continue regular, annual monitoring and reporting.

## **I. INTRODUCTION**

This is the eighth regular program monitoring report to describe educational outcomes for the Milwaukee Academy of Science (MAS), a school chartered by the City of Milwaukee. This report focuses on the educational component of the monitoring program undertaken by the City of Milwaukee Charter School Review Committee (the CSRC) and was prepared as a result of a contract between the CSRC and the NCCD Children's Research Center (CRC).<sup>2</sup>

CRC used the following steps to gather the information in this report.

- Three initial site visits were conducted, during which CRC conducted structured interviews with leadership staff of the primary/elementary academies, the junior academy, and the high school; reviewed critical documents; and obtained copies of these documents for CRC files.
- CRC staff assisted the school in developing outcome measures for three distinct learning memorandums.
- CRC staff made additional scheduled and unscheduled site visits to observe classroom activities; student-teacher interactions; parent-staff exchanges; and overall school operations, including the clarification of necessary data collection. CRC staff also reviewed a representative sample of special education files.
- CRC staff, along with the CSRC chair, attended a meeting of the board of directors of this school to improve communications regarding the roles of the CSRC and CRC, as the educational monitor, as well as the expectations regarding board member involvement.
- At the end of the school year, CRC conducted structured interviews with leadership staff of the primary/elementary academies, junior academy, and high school.
- CRC staff conducted interviews with a random selection of teachers. All members of the school's board of directors were contacted for interviews, and interviews were conducted with all respondents.
- CRC conducted a survey of parents of all students enrolled in the school and a student survey of all seventh, eighth, eleventh, and twelfth graders in attendance on the day the instrument was administered.
- The school provided electronic data to CRC, which CRC compiled and analyzed.

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<sup>2</sup> CRC is a nonprofit social science research organization and a center of the National Council on Crime and Delinquency (NCCD).

## II. PROGRAMMATIC PROFILE

Milwaukee Academy of Science  
2000 West Kilbourn Ave.  
Milwaukee, WI 53233

**Telephone:** (414) 933-0302

**Website:** <http://www.milwaukeeacademyofscience.org>

**President and Chief Executive Officer:** Judy Merryfield<sup>3</sup>

**Associate Principal, Kindergarten Through Fifth Grade:** Jeremy Braun<sup>4</sup>

**Associate Principal, Sixth Through Eighth Grade:** Kristi Bachar

**Associate Principal, Ninth Through Twelfth Grade:** Chris Schwab

### A. Description and Philosophy of Educational Methodology

#### 1. Mission and Philosophy

MAS recently revised its mission statement, and it currently reads as follows:

“The mission of the Milwaukee Academy of Science, an exemplary leader in STEM education, is to graduate urban students prepared to compete successfully at the postsecondary level.”

MAS opened in August 2000 and was chartered by UW-Milwaukee. The school began a five-year charter agreement with the City of Milwaukee in July 2008. MAS started its second five-year charter agreement during the 2013–14 school year. The school serves students in K4 through twelfth grades with a challenging curriculum that emphasizes science. MAS staff embrace the “5-E” model of

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<sup>3</sup> In the second semester, Ms. Merryfield resigned her position as president and CEO of MAS. Chris Schwab and Bonny Wesson assumed these responsibilities, with assistance from other staff members, until the new CEO could assume these responsibilities in July 2016. The new president and CEO is Anthony McHenry.

<sup>4</sup> Mr. Braun assumed the role of associate principal for the primary/elementary academies at the beginning of the 2015–16 school year. He was terminated at the end of the school year. The organizational structure of MAS is being reviewed and adopted changes will be implemented for the 2016–17 school year.

teaching science: engage, explore, explain, evaluate, and extend. MAS enhances its curriculum with community partnerships<sup>5</sup> to offer its students unique science opportunities.

MAS complements its mission by operating under these revised guiding principles.

- We prepare our students for future opportunities with our STEM curriculum, diverse experiences, and enrichment beyond the core curriculum.
- We make decisions about programming and services based on the best interest of our students, strategic plan, budget, and professional development analysis and feasibility.
- We collaborate with students, family, staff, and our community to provide a quality education.
- We never compromise safety.
- We conduct business with integrity to ensure the school's longevity for our students, families, and the community.
- We embrace diversity.
- We hold the MAS community to high academic and behavior expectations.

## 2. Instructional Design

MAS emphasizes the integration of science into the general curriculum. It also provides its students with unique science opportunities at all levels. The school's overall objectives, as stated in the 2015–16 parent, student, and teacher handbooks, are threefold.

- All students who are enrolled at MAS for three or more years will meet or exceed grade-level standards in reading, writing, and mathematics.
- All MAS graduates will demonstrate 21st-century skills necessary to make a successful transition to postsecondary education in science.
- Each student will design and complete challenging, meaningful science projects or experiences tailored to their interests, abilities, and aspirations.

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<sup>5</sup> MAS launched a new partnership with the Medical College of Wisconsin and engaged 20 high school students in collaborative research projects with staff and graduate students from the college.

As part of the school's efforts to achieve these objectives, MAS teachers are trained in differentiated instruction as well as in the curricular areas in which they teach. Teachers use a variety of instructional groupings, including one-on-one instruction, small-group instruction, cooperative learning, whole-group instruction, and independent study. MAS used K4 and K5 assistants, Reading Corps members, and volunteers from Marquette University to assist K4 through fifth-grade classroom teachers. These assistants worked under the supervision of the classroom teachers to provide supplemental instructional support to small groups in reading and math. Teachers also team-teach, which commonly occurs in inclusion classrooms with the regular education teacher and the special education teacher. The needs of the students and the objectives of the lessons determine the most appropriate instructional techniques.<sup>6</sup>

The school's curriculum is challenging and designed to meet the needs of individual learners. Open Court Reading, a research-based program to accelerate reading skills for urban students, is used as the core reading program for the primary/elementary academies. The junior academy is departmentalized, and classes are taught by content-area specialists. All students have a double reading block using the Holt Elements of Literature textbook; independent reading of self-selected novels; and other instructional strategies, including Compass Learning. The high school students also use Holt Elements of Literature as a foundation text. Teachers supplement this curriculum through the use of novels and techniques such as literature circles. The junior academy science curriculum focuses on the life sciences, with an emphasis on biology and environmental science. All high school students take biology, physical science, chemistry, technological inquiry, and physics. In addition to these science requirements, high school students have access to advanced placement courses in biology and environmental science and classes in anatomy and physiology, vertebrate zoology, regular zoology, and engineering.

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<sup>6</sup>This information was taken from the school's city charter application.

The primary/elementary and junior academies used the Measures of Academic Progress (MAP) to assess student progress in reading. Both programs used Compass Learning and the Scholastic Reading Inventory (SRI) to assess and monitor students' acquisition of higher-level reading skills.<sup>7</sup>

MAS uses the Engage New York curriculum for the primary/elementary academies. A Common Core State Standards-aligned Holt curriculum is used for the junior academy students, with a focus on algebraic concepts for students in eighth grade. The high school math program allows students to progress through courses in Algebra I, Geometry, Algebra II/Trigonometry, Precalculus or Statistics, and potentially Calculus. More advanced courses are provided based on student needs.

Students start their science learning at the youngest ages by focusing on themes aligned with their reading series. The science curriculum draws on the McGraw-Hill series for K4 through fifth grade. The junior academy students use Science Plus, an active, hands-on curriculum based on the Constructivist Learning Model, which encourages students to build their own understanding of science. The older students' math and science curriculum focuses on the concepts emphasized in the Common Core, the Next Generation Science Standards, and the competencies embedded in the Aspire and ACT. Finally, MAS recognizes the importance of "specials" in a student's academic program, so each student receives instruction in physical education, technology, and a STEM lab on a regular basis.

## **B. School Structure**

### **1. Board of Directors**

MAS is an unincorporated association governed by the Milwaukee Science Education Consortium, a 501(c)(3) organization. The consortium is governed by a board of directors. It has ultimate responsibility for the school's success and is accountable directly to the City of Milwaukee

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<sup>7</sup> Compass Learning is a computer-based program that matches learning activities to students' MAP scores.

and the Wisconsin Department of Public Instruction (DPI) to ensure that all of the terms of its charter are met. The board sets policy for the school and hires the school president and CEO, who in turn hires the staff of the school. The board has regular meetings where issues are discussed, policy is set, and school business is conducted.<sup>8</sup>

This year, there were 22 members on the board of directors: a president/CEO, vice president, secretary, treasurer, and 18 other members.<sup>9</sup> Board members represent each of the institutions of higher education that contributed to the creation of the consortium (Medical College of Wisconsin, Cardinal Stritch University, Marquette University, Alverno College, Milwaukee Area Technical College, Milwaukee School of Engineering, and UW-Milwaukee). Other board members represent major local businesses and contribute their expertise in administrative and fiscal management; there are also two parent representatives. Board members reflect a variety of experience and expertise, including educational administration, accounting, nonprofit leadership and management, law, development/construction, marketing/fundraising, and teaching.

This year, CRC conducted phone interviews with the 20 board members out of 22 (90.9%) who responded to a request for feedback. Nineteen of the 20 members interviewed said they participated in strategic planning for the school. All respondents attended a presentation on the school's annual academic performance report and reviewed the school's annual financial audit; 19 received and approved the school's annual budget.

Most (85.0%) rated the school as "excellent" or "good" overall. When asked, the main suggestions made by board members for improving the school were to implement a targeted intervention program for students who aren't succeeding; improve teacher-parent communication;

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<sup>8</sup>This information is taken from the school's website and its original application to the City of Milwaukee.

<sup>9</sup>There are four additional members of emeritus status.

increase community connections and partnerships; and obtain appropriate social services for the students in the school.

## 2. Areas of Instruction

The administration of MAS is structured to support the ongoing improvement of the learning environment and academic achievement of all its students. The school has a president/CEO, a chief academic officer/HS associate principal, a chief financial officer, an operations coordinator, and a director of development, all of whom are responsible for the overall school and its academic and financial outcomes. Three additional associate principals, three achievement directors, and an instructional coach oversee MAS's four academies: the primary academy, the elementary academy, the junior academy, and the high school. The academies are assisted with their core instructional activities by special education teachers, intervention staff, other instructional specialists, and a technology team.

The primary academy serves students in K4 through first grades; the elementary academy serves students in second through fifth grades; the junior academy serves students in sixth through eighth grades; and the high school serves students in ninth through twelfth grades.

A major part of the school's overall strategic plan is to identify 21st-century skills, integrate them throughout the K4- through twelfth-grade curriculum, and develop appropriate means for assessing and improving students' academic performance. In the earliest grades (K4 through third), instruction focuses primarily on the acquisition of literacy and mathematical skills. At these early ages, students are also introduced to science, social studies, and technology. As students progress into the next two grades in the primary/elementary academies, the curriculum expands its focus to encompass additional instructional time on scientific constructs and social studies material.

Students in the junior academy and high school receive instruction in language arts, writing, reading, literature, mathematics, technology, social studies, science, foreign languages, and physical

education. Grade-level standards and benchmarks have been established for each of these curricular areas; progress is measured against these standards. The junior academy is departmentalized; in an effort to better prepare students for the high school experience, they move from classroom to classroom for their content instruction. These practices maximize the teachers' expertise and enable them to operate more effectively as "teacher teams." Most recently, high school students were given expanded opportunities to participate in advanced placement classes and other more advanced courses. In order to graduate from MAS, students must acquire 22 credits.<sup>10</sup> The minimum credit requirements for graduation are as follows.

- English: 4.0
- Mathematics: 4.0
- Social studies: 3.0
- Science: 5.0
- Foreign language: 2.0
- Physical education/health<sup>11</sup>:2.0
- Electives: 2.0

These requirements may vary for students with special education needs, depending upon their individualized education program (IEP) goals and their transition plan.

In order to participate in the graduation ceremony, students must take the ACT WorkKeys during junior year and the ACT during their junior and senior year. During their senior year, they must maintain an 85.0% attendance rate and have no outstanding fees.<sup>12</sup>

During the interview and survey process, board members and teachers were asked about the school's program of instruction. All but two (90.0%) of board members agreed or strongly agreed that

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<sup>10</sup> These graduation requirements will be upgraded and become more rigorous for students who graduate in 2017. Students in this class will need four and a half credits in English, six credits in science, and two and a half elective credits. Students will also be required to earn 24 credits for graduation.

<sup>11</sup> Must include one and a half credits in physical education and half a credit in health.

<sup>12</sup> This requirement is articulated in the *2015–16 Student and Parent High School Handbook*.

the program of instruction is consistent with the school's mission, and 17 (65.4%) teachers rated the program of instruction as "excellent" or "good."

### 3. Teacher Information

MAS classrooms were staffed by 27 primary/elementary academy teachers, 10 junior academy teachers, and 13 high school teachers. These classroom teachers were supported by a special education coordinator,<sup>13</sup> eight special education teachers, two intervention teachers, three STEM/technology teachers, two physical education teachers, and a library media specialist. Other educational support staff included a guidance counselor for ninth- through twelfth-grade students; a technology team; and several assistants, including volunteers from AmeriCorps.

At the beginning of the year, 12 (18.2%) of the 66 teachers were newly hired. The other 54 (81.8%) teachers returned from the 2014–15 school year and had been at the school for time periods ranging from one to 11 years. The overall return rate from the 2014–15 school year for eligible instructional staff was 80.9%.<sup>14</sup> During the 2015–16 school year, two of the 66 (3.0%) teachers left the school, resulting in an annual school-year teacher retention rate of 97.0%.

Two (3.0%) of the 66 instructional staff employed during the year did not hold a Wisconsin DPI license or permit to teach.<sup>15</sup>

MAS believes that staff members are accountable for their own professional growth and development. Professionals are expected to accept the responsibility for their development both collectively and individually. Expectations include the following.

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<sup>13</sup> The special education coordinator position is excluded from staff return/retention rates.

<sup>14</sup> This rate was calculated excluding teachers who were at MAS at the end of the 2014–15 school year but who were not offered contracts for the 2015–16 school year, due either to unacceptable performance or the elimination of their instructional position; it also excludes teachers who moved out of the city for family reasons.

<sup>15</sup> Two teachers had applications pending with DPI for their licenses, but neither had received their licenses by the end of the school year. Both teachers completed their undergraduate education outside the state of Wisconsin, and issues surfaced relating to compliance with Wisconsin's requirements that delayed the processing of their applications.

- Teachers should create personal professional development plans and portfolios.
- Designated teams assess their common professional development needs.
- Staff attendance is mandatory on professional development days.

The school supports professional development through its preservice training and ongoing professional development opportunities. Staff members are provided with in-house support and multiple opportunities to grow as professionals.<sup>16</sup> The school maintains a comprehensive induction program for initial (new) educators that includes an orientation program prior to the start of the school year; professional development plan reviews; membership in and mentorship through the Southeastern Wisconsin New Teacher Project; participation in a new teacher group that is moderated by the principals; strong, cohesive teams; and principal observation.

All staff members are required to participate in professional development programs and are provided with time for collaborative planning and departmental meetings. In addition, teachers are encouraged to attend relevant conferences and workshops. For example, some of the K4- through eighth-grade staff attend the Wisconsin State Reading Association Conference each year.

Formal teacher evaluations occur on an annual basis and are used to guide decisions about contract renewals and salaries for the next school year. Assessments/evaluations of MAS teaching staff are based on the employee's commitment to his/her personal professional development and evidence of progress, as well as school budgetary constraints.

During the interview process, teachers were asked about the teacher assessment process. Most (96.2%) agreed or strongly agreed that the school has a clear teacher assessment process, but only about three quarters (73.1%) were satisfied with the teacher assessment criteria. Twenty-one agreed or strongly agreed that student academic performance is an important part of teacher assessment.

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<sup>16</sup> The material in this section was extracted from pages 24 and 25 of MAS's application to the city to be authorized as a charter school in July 2008 and from the *2015–16 Staff Handbook*.

4. Hours of Instruction/School Calendar<sup>17</sup>

For primary/elementary and junior academy students, the regular school day began at 7:55 a.m. and ended at 3:20 p.m. High school students began their day between 7:40 and 9:00 a.m. and ended their day between 3:00 and 3:51 p.m. Breakfast was available to all students beginning at 8:31 a.m.

The first day of student attendance was August 17, 2015, and the last day was June 10, 2016. The school met the contract requirement for instructional/attendance days.

MAS offers students regular opportunities for afterschool activities and academic support. For primary/elementary academy students, afterschool activities—such as science club, Boy and Girl Scouts, reading tutoring, and sports—are held from 3:30 to 5:00 p.m.

MAS offered tutoring services, science club, robotics, athletics, etc., to junior academy students from 3:20 until about 5:30 p.m. Other activities were available for these youth and their high school peers during this same time period.<sup>18</sup> The learning lab was available for all high school students both before school (7:30 to 8:31 a.m.) and after school (3:00 to 5:00 p.m.). The lab was staffed by high school teachers and provided a place for students to complete general studying, independent reading, research on the computer, ACT preparation, and assignments; or to obtain enrichment instruction. MAS strongly encouraged students with the greatest needs to participate in the learning lab.

5. Parental Involvement

MAS recognizes that parent/family involvement is a critical component of student success. The school encourages the engagement and involvement of parents in the following ways.

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<sup>17</sup> All information in this section is available in the school calendar; MAS provided CRC with a copy of the school calendar at the beginning of the school year.

<sup>18</sup> Activities included things such as science club; job/career club; basketball; fitness; cheerleading; dance; career club; self-defense; and Pearls for Teen Girls, Inc.

- MAS requires all parents to attend a mandatory registration meeting at the beginning of the school year. At this session, staff review the appropriate student/parent handbook. Subsequent to this review, parents and older students sign an agreement to follow the school's policy and procedures.
- MAS expects administrative and teaching staff to work with parents/families to ensure that children are coming to school regularly. It is also their responsibility to provide parents with regular and diverse opportunities to participate in school functions.
- MAS seeks regular communication with its families by having each grade level send out newsletters. These newsletters highlight upcoming school activities and describe recent student achievements and school awards. Teachers are also encouraged to communicate with parents on a regular basis via written notes, telephone, and/or email and be prepared to meet with parents during parent/teacher conferences.<sup>19</sup>

The school also has a parent action team, which holds meetings once each month. All parents are members of this organization and are encouraged to participate so that the team can achieve its mission, which is to make MAS the best school in Milwaukee. The team provides parents with an additional link to teachers; bridges communication between parents, school, students, and teachers; helps to develop students as lifelong learners; provides leadership for the school community; and raises funds for school programs and projects.

Teachers were asked about parental involvement. About 80.0% of the teachers rated parental involvement as good or fair; none rated it as excellent.

## 6. Waiting List

According to the school's administrators, the school did not have a waiting list as of June 2016. They anticipated that a waiting list might develop over the summer for certain grades, but staff did not expect the number of students to be significant.

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<sup>19</sup> This information was extracted from MAS's charter school application and the student and parent handbooks for the 2015–16 school year.

7. Discipline Policy

MAS places a strong emphasis on a safe and orderly learning environment. The school has adopted a code of conduct, which reads as follows.

At the Milwaukee Academy of Science,  
I will respect myself,  
respect my school staff,  
respect my fellow students,  
and respect my school.

In the parent handbooks, the school emphasizes its utilization of positive behavioral interventions and support (PBIS) as a proactive systems approach to maximize student achievement. It requires a commitment to maintaining a positive learning environment that promotes cooperation, fosters creativity, and encourages and nurtures students to take risks involved in learning. MAS believes parents and community members play a critical role in supporting this learning environment through the use of common, respectful language that inspires students while setting clear limits.

The parent handbooks also contain detailed information about MAS's discipline code and what MAS considers to be level 1, 2, and 3 violations. It provides clear and concrete descriptions of the range of disciplinary consequences that will be used by MAS staff. The handbooks identify each type of consequence, describe each consequence in some detail, indicate who can assign the consequence, and associate each consequence with a set of violations. For example, a warning might be issued to a student with a level 1 violation, and expulsion is possible for a level 3 violation.

MAS also uses strategies consistent with good Response to Intervention (RtI) practices. RtI is a framework for implementing high-quality instruction, balanced assessment, and collaboration, using a multi-tiered system to provide the support needed to increase success for all students. MAS's RtI has three tiers for both academics and behaviors. Each tier contains detailed information about the school's expectations and the consequences for deviation from the expectations. Details about MAS's RtI can be found in the 2015–16 parent handbook.

This year teachers, students, and parents were asked about the discipline policy at MAS; they expressed mixed opinions.

- *Teachers:* A majority (80.8%) of teachers considered the discipline at the school as a “very important” or “somewhat important” reason for continuing to teach there, but less than 20% (19.2%) rated the school’s adherence to the discipline policy as good; 80.8% rated it as fair or poor.
- *Students:* Just over half (54.4%) of students agreed or strongly agreed that the rules are enforced fairly; about a quarter (26.3%) neither agreed nor disagreed; and 16.4% disagreed or strongly disagreed.
- *Parents:* About three quarters (77.0%) of parents are comfortable with how staff handle discipline.

## 8. Graduation Information

MAS’s guidance department provides some assistance to the school’s eighth graders, but the junior academy staff work throughout the year with these students and their parents and strongly encourage them to continue their education at MAS through high school graduation. The MAS leadership team indicated that most eighth graders continue at MAS for high school. At the end of the school year, 83.6% of the eighth graders who were promoted to ninth grade (N = 67) were enrolled in MAS for the next school year. The remaining 11 students were either enrolled in another public school or had not informed the school of their chosen high school.<sup>20</sup> The reasons generally stated for students not returning to MAS for high school were the desire to participate in school athletics or to pursue interests other than science and/or engineering.

MAS employs a full-time guidance counselor whose primary responsibility is to work with the high school students as they prepare for postsecondary careers and educational experiences. As part of her work, the counselor reported completing the following activities with MAS students.

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<sup>20</sup> Two of the MAS eighth-grade graduates enrolled in Rufus King International School, one of the students was unsure of his MAS re-enrollment status, and the remaining eight students had not informed MAS of their high school enrollment status.

All twelfth graders participated in a credit check and graduation progress meeting. A specific form was structured for use in these meetings so that each senior was aware of what was required of him/her in order to graduate at the end of the school year. During this session, each student identified the colleges and careers of greatest interest to him/her. Individual time was available to all seniors for assistance in filling out college applications, gathering the necessary documentation, calling universities to ask diverse questions, and sending out transcripts.<sup>21</sup> All ninth, tenth, and eleventh graders participated in at least one individual session to develop a graduation and career plan. With tenth graders, the counselor went into classrooms to assist them with completing a career interest inventory through the Career Cruising website and used the results in their individual graduation plan and conferences with parents.

Individualized sessions were complemented by a series of other activities provided by MAS to its high school students to increase their knowledge and ability to be more successful in their careers after graduation from high school.

Students went on two college visits, to UW-Green Bay and UW-Oshkosh. Additionally, they had multiple admission representatives from around the country come to the school to speak with students. Several eleventh- and twelfth-grade students accompanied the counselor to the Wisconsin Education Fair held at Mount Mary University. Another group of students attended the National College Fair, held in downtown Milwaukee. The counselor also held college application workshops every Wednesday from 3:00 p.m. to 4:00 p.m. throughout first semester to assist students with their applications. MAS again partnered with the Great Lakes organization, whose representatives gave presentations to students about applying to college, planning for college, and completing the FAFSA. Starting in January, the representative also came every other week to help students complete the FAFSA.

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<sup>21</sup> The guidance counselor held college application workshops every Wednesday from 3:00 to 4:00 p.m. to assist any student with these activities.

MAS has continued to build two other partnerships that help students with postsecondary planning: the Marquette Upward Bound Math and Science program and the UW-Milwaukee Talent Search program. Contacts from these two partners visit the school regularly to meet with students and assist them in exploring postsecondary options. One outcome was that all twelfth-grade students who graduated at the end of the school year were accepted into postsecondary schools, including Alabama State, Alverno College, Bemidji State University, Clark Atlanta University, Concordia University, Kennedy-King College, Marian University, Milwaukee Area Technical College, MSOE, University of Minnesota–Rochester, UW-Madison, UW-Milwaukee, UW-Parkside, UW-Platteville, UW-Stevens Point, and UW-Whitewater.

Thirty-eight of 46 eleventh and twelfth graders surveyed at the end of the school year indicated that adults at the school helped them to understand what they need to do to succeed, and 34 (73.9%) said that they are planning to enroll in a postsecondary program after high school.

### **C. Student Population**

As of September 18, 2015, 1,039 students were enrolled in K4 through twelfth grade.<sup>22</sup> During the year, 35 students enrolled in the school and 125 students withdrew.<sup>23</sup> Students withdrew for a variety of reasons. Of the primary/elementary academy students who withdrew, 19 transferred to other schools in the district, 17 withdrew to avoid expulsion, 16 transferred out of state, six transferred to another school in Wisconsin, six withdrew due to chronic behavior issues, five withdrew due to attendance, and eight withdrew for other reasons. Of the junior academy students, 16 transferred to other schools (12 somewhere else in Wisconsin, three out of state, and one to another school in the district), two were expelled for fighting, two were expelled for drugs, and six were withdrawn by their

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<sup>22</sup> There were 619 students in the primary/elementary academies, 230 in the junior academy, and 190 in high school.

<sup>23</sup> A total of 29 students enrolled and 77 withdrew from the primary/elementary academies; five enrolled and 26 withdrew from the junior academy; and one enrolled and 22 withdrew from the high school.

parents for other reasons. Of the high school students, 15 transferred to other schools in the district, one transferred out of state, two withdrew to avoid expulsion, one was expelled for fighting, one was expelled for making threats to staff, and two students were withdrawn by their parents for unknown reasons.

There were 949 students enrolled at the end of the school year.

- There were 571 students in K4 through fifth grade (Figure 1), 209 students in sixth through eighth grades, and 169 students in ninth through twelfth grades (Figure 2).
- More than half (501, or 52.8%) were girls, and 448 (47.2%) were boys.
- There were 943 (99.4%) African American students, four (0.4%) Hispanic students, and two (0.2%) Caucasian students.
- There were 117 (12.3% of the student body) students with special education needs.<sup>24</sup> A total of 41 students had other health impairments (OHI), 22 had learning disabilities (SLD), 21 had emotional behavioral disabilities (EBD), 21 had speech and language impairments (SPL), four had cognitive disabilities (CD), four had significant developmental delays (SDD), three students were autistic, and one had an intellectual disability (ID).
- Most (82.0%) of the school's students were eligible for free/reduced lunch.

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<sup>24</sup> Includes students with identified special education needs who qualified and were not dismissed at evaluation.

Figure 1  
**Milwaukee Academy of Science  
 Grade Levels of Students in the  
 Primary/Elementary Academies  
 2015–16**

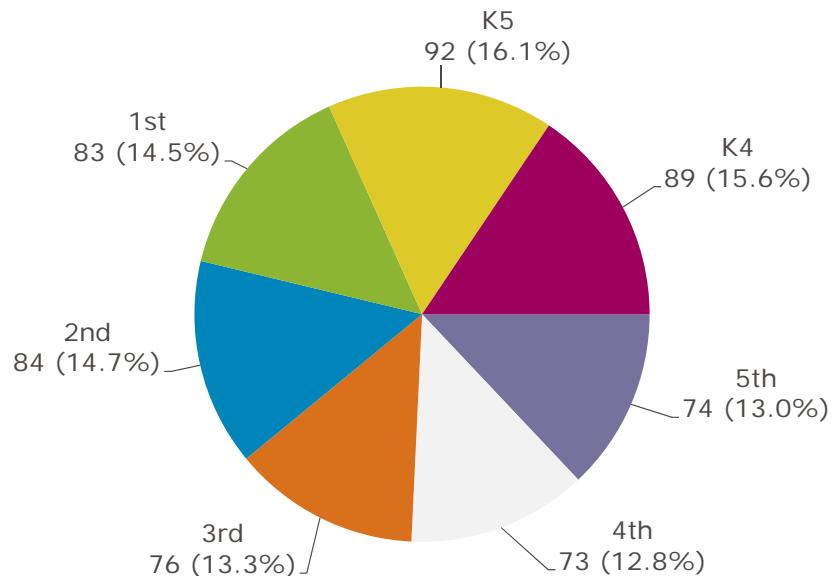
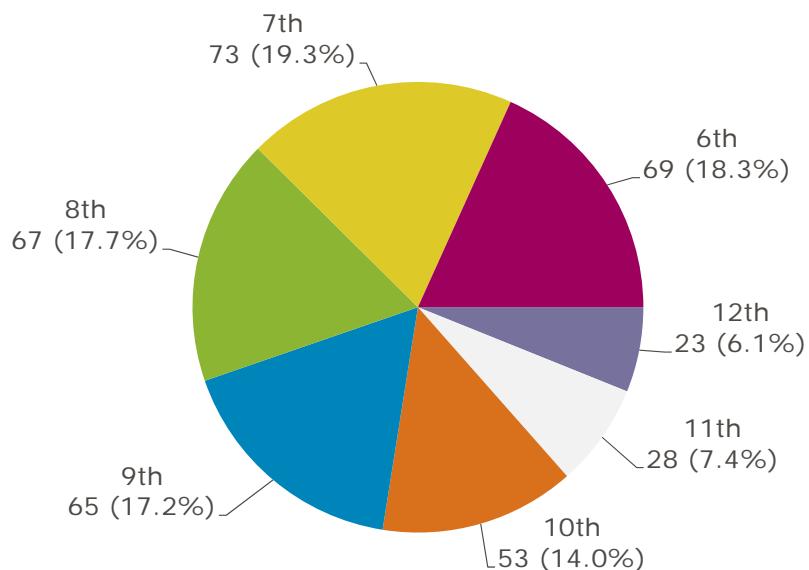


Figure 2  
**Milwaukee Academy of Science  
 Junior Academy and High School Grade Levels  
 2015–16**



There were 1,039 students enrolled on the third Friday of September;<sup>25</sup> of these, 920 students were still enrolled on the last day of the school year. This represents an overall retention rate of 88.5%. Of the 619 primary/elementary academy students who were enrolled at the beginning of the year, 548 (88.5%) were still enrolled at the end; in the junior academy, 204 (88.7%) of the 230 students enrolled at the beginning stayed for the entire year; and 168 (88.4%) of 190 high school students were retained for the year.<sup>26</sup>

There were 776 students enrolled at the end of the 2014–15 school year who were eligible to return to the school, i.e., they did not graduate from eighth grade or high school; 661 of those students were enrolled on the third Friday in September 2015. This represents a student return rate of 85.2%.<sup>27</sup>

All of the seventh, eighth, eleventh, and twelfth graders who were in attendance on a day toward the end of the school year completed an online survey. Almost two thirds (64.3%) of the students surveyed reported that they felt safe in school, 90.1% said that they had improved in English/reading and writing, and most (82.5%) said they had improved in math. Of the students surveyed, 67.8% strongly agreed or agreed that teachers at the school respect students, but just over half (57.3%) agreed or strongly agreed that teachers at the school respect students' different points of view. More than half (57.9%) said that they liked being in school. When asked what they liked best about the school, students most frequently mentioned the teachers, learning new things, and being challenged academically because it helps them focus on the future.

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<sup>25</sup> The third Friday of September is considered the beginning of the school year for student tracking purposes.

<sup>26</sup> The combined retention rate for the primary/elementary and junior academies was 88.6%.

<sup>27</sup> Of the 639 students in K4 through seventh grade who were enrolled at the end of the 2014–15 school year, 551 (86.2%) were enrolled on the third Friday of September 2015. Of the 137 students who were enrolled as ninth, tenth, or eleventh graders at the end of the 2014–15 school year, 110 (80.3%) returned for the 2015–16 school year.

#### **D. Activities for Continuous School Improvement**

During the year, MAS responded to all of the activities recommended in the 2014–15 programmatic profile and educational performance report. Below is a description of each recommendation and the school’s corresponding response.

For the primary/elementary academies, the focus was on the following.

- Recommendation: Create interim assessments for second through fifth graders in reading and math so that teachers can more regularly monitor individual students' acquisition of required skills.

Response: Staff adopted pre-designed interim assessments for reading and math for use with third through fifth graders. The assessments were administered twice during the school year. Two professional development sessions were held with teachers to review an item analysis of the results. Focus was given to areas of strength and weakness. Specific strategies were adopted to work with students to maximize their strengths and remedy their deficit skill areas. These assessments were also used to monitor student progress over the course of the school year.

- Recommendation: Continue to work with parents to increase their engagement and collaboration with MAS teachers in an effort to improve students' achievement in reading and math. Specifically, staff should provide parents with additional opportunities to acquire skills to increase their child's engagement in the learning process at school and at home. Some of these opportunities should include sessions that engage parents in specific activities with their children that can also be conducted in the home or other settings.

Response: In collaboration with Milwaukee Succeeds, MAS offered a workshop for parents on literacy skills. Staff used parent-teacher conference sessions to prompt greater involvement of parents with their children's learning experiences. Staff adopted a passport system—when parents visited a resource or special teacher, their passport was signed and these parents were eligible to enroll in a raffle. For those students with greatest needs, the staff also had materials at a parent resource table that were recommended for individual students. Finally, all parents were given immediate feedback on their child's performance on the MAP test.

For the junior academy, the focus was on improving student competencies through the following strategies.

- Recommendation: Expand career exploration in class activities so that students become more knowledgeable about an array of new and emerging professional fields.

Response: Staff created home-based activity committees, which were responsible for identifying requirements students need in order to pursue specific careers. Time was given every week to focus on a specific career, utilizing videos and presenters. The team partnered with Learning for Life to choose three career areas as a focus. Guest speakers were given 60 to 90 minutes to describe their career field and inform students about what education and skills are needed to succeed in this field. Finally, the eighth graders went to Neighborhood House for a career preparation program, where they heard from four professionals about their careers, training, achievements, and professional aspirations.

- Recommendation: Use teacher effectiveness data to design professional development directions for each staff person, and organize interactions to appropriately support teachers in the achievement of their developmental goals.

Response: At three different times over the course of the school year, the team identified three specific domains to improve upon over the course of the next several months. The expectation was that each teacher would review his/her progress, reflect on next steps, and plan for additional improvement. A Google system was created to allow tracking of progress over a one-year cycle. These activities were also monitored by administration, using two formal observations and two to five mini-observations of each teacher in his/her classroom during the school year.

For the high school, the focus was on the following steps.

- Recommendation: Focus on increasing student engagement and expanding each student's ownership of specific goals and aspirations. This will be accomplished by helping students obtain internships, mentors, field experiences, and real-world applications of what they are learning.

Response: Implemented the first year of a three-year project to expand students' opportunities to learn beyond the school walls. The first partnership was with the Medical College of Wisconsin (MCW), where 20 youth went once a week to engage in research topics of special interest to the student. This enabled students to engage in science in a real-world career setting. At the end of the project, students presented with the faculty at MCW the results of their research. Next year, it is anticipated that a group of MAS sophomores will be invited to participate in this project. The school plans to create similar partnerships with other institutions of learning and STEM-engaged businesses.

- Recommendation: Strengthen the use of data-driven instruction by setting specific objectives for students within each class and evaluating student progress through formative assessments. Additionally, continue working to ensure all classes are aligned to college readiness standards and are sufficiently rigorous to enable students to succeed in postsecondary school settings.

Response: Using interim assessments, staff closely monitored students' acquisition of the skills aligned with the ACT standards. With staff assistance, students set daily learning objectives, and teacher/student teams regularly reviewed students' work to assess whether these objectives had been acquired. Feedback was given to students on a regular basis, and staff participated in quarterly data retreats to assess and plan for the inclusion of higher-level learning objectives for students in multiple content areas.

- Recommendation: Use the teacher effectiveness data to design professional development directions for each staff person, and organize interactions to appropriately support teachers in the achievement of their developmental goals.

Response: At the beginning of the school year, administrators met with teachers to discuss the teacher effectiveness data and set specific professional goals. Throughout the year, biweekly sessions were conducted with each teacher to focus on the teacher's perception of his/her own progress and to review the observation narratives completed by administrators. These data were used to plan for consistent improvement in each teacher's effectiveness.

### **III. EDUCATIONAL PERFORMANCE**

To monitor performance as it relates to the CSRC contract, MAS collected a variety of qualitative and quantitative information at specified intervals during the academic year. This year, the school established goals for attendance, parent-teacher conferences, and special education student records. In addition, MAS identified local and standardized measures of academic performance to monitor student progress.

This year, local assessment measures included student progress in literacy, mathematics, and writing, as well as individualized education program (IEP) goals for special education students. The standardized assessment measures were the Phonological Awareness Literacy Screen (PALS), the Wisconsin Forward Exam, the ACT Aspire, and the ACT.

#### **A. Attendance**

At the beginning of the 2015–16 academic year, the primary/elementary academies and the junior academy established a goal of maintaining average attendance rates of 92.0%; the high school

academy's goal was 91.0%. In the primary/elementary academies, a student was considered present if he/she was at the school between 8:30 a.m. and 3:20 p.m. A student was marked as attending for a partial day if he/she arrived after 11:00 a.m. or left before 3:20 p.m. Junior academy students were marked present for the day if they arrived at school prior to 10:00 a.m. High school attendance was taken by period. Students were marked present only if they attended for the entire day. High schoolers who missed any period were marked truant.<sup>28</sup>

- Primary/Elementary Academies
  - » Primary/elementary academy students attended school an average of 91.2% of the time. When excused absences were included, the attendance rate rose to 92.3%.
  - » There were 135 students suspended from school at least once during the year. These students spent, on average, 2.4 days out of school due to suspension.
- Junior Academy
  - » Junior academy students attended school an average of 94.8% of the time. When excused absences were included, the attendance rate rose to 96.7%.
  - » There were 65 students suspended from school at least once during the year. These students spent, on average, 2.6 days out of school due to suspension.
- High School
  - » High school students attended school an average of 93.0% of the time. When excused absences were included, the attendance rate rose to 95.5%.
  - » There were 39 students suspended from school at least once during the year. These students spent, on average, 2.4 days out of school due to suspension.

The school has not met its attendance goal for the primary/elementary academies, but it did meet the goal for the junior academy and high school.<sup>29</sup>

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<sup>28</sup> Attendance data were provided for 1,074 students enrolled at any point during the school year. Attendance was calculated for each student by dividing the number of days attended by the number of days expected, then averaging all of the students' attendance rates.

<sup>29</sup> The attendance rate for students in K4 through eighth grade was 92.1%.

## **B. Parent Participation**

The parent-participation goal of the primary/elementary academies and the high school was that parents of at least 85.0% of students enrolled for the entire school year would attend two of three scheduled parent-teacher conferences; the goal for the junior academy was 90.0%.<sup>30</sup> Conferences were scheduled for November 2015, February 2016, and April 2016.

- Of the 548 primary/elementary academy students enrolled all year, parents of 505 (92.2%) students attended two of three conferences.
- Parents of all (100.0%) 204 junior academy students enrolled for the entire year attended two of three conferences.
- Of the 168 high school students enrolled all year, parents of 143 (85.1%) students attended two of three conferences.

All four academies, therefore, met their goal related to parent participation.

## **C. Special Education Student Records**

The school established a goal of maintaining up-to-date records for all special education needs students. An IEP was developed, reviewed, and adopted for all 73 primary/elementary academy students, all 26 junior academy students, and all 18 high school special education students enrolled at the end of the year who qualified for and were not dismissed from special education services.

In addition, CRC conducted a random review of special education files. This review indicated that IEPs are routinely being completed and that parents are being invited to help develop IEPs for their children. The school has therefore met its goal of maintaining records on all students with special needs.

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<sup>30</sup> Conferences with any teacher—either at the school, via phone, or at the student’s home—were counted in the participation rate.

#### **D. Local Measures of Educational Performance**

Charter schools, by their definition and nature, are autonomous schools with curricula that reflect each school's individual philosophy, mission, and goals. In addition to administering standardized tests, each charter school is responsible for describing the goals and expectations for its students in the context of that school's unique approach to education. These goals and expectations are established by each City of Milwaukee charter school at the beginning of the academic year to measure the educational performance of their students. These local measures are useful for monitoring and reporting progress, guiding and improving instruction, clearly expressing the expected quality of student work, and providing evidence that students are meeting local benchmarks.

At the beginning of the school year, MAS designated three different areas in which students' competencies would be measured: literacy, mathematics, and writing. The school also set a goal related to special education IEP goal progress.

1. Primary/Elementary Academies

- a. *Literacy*

- i. *PALS for K4 Students*

The PALS assessment and benchmarks are described in detail in Section F of this report, Standardized Measures of Educational Performance. In addition to administering the assessment, as required by DPI and the CSRC, MAS also elected to use the PALS-PreK and PALS-K as their local measures for students in grades K4 and K5. The school's goal for K4 was that at least 85.0% of students who completed both the fall and spring assessments would be at or above the developmental range for at least five of the seven tasks at the time of the spring assessment.

A total of 88 K4 students completed the fall and spring PALS-PreK. Almost all (84, or 95.5%) of those students were at or above the developmental range for five of the seven tasks at the time of the spring assessment, exceeding the school's goal (Table 1).

<b>Table 1</b> <b>Milwaukee Academy of Science</b> <b>PALS-PreK for K4 Students</b> <b>Tasks for Which Students Were at or Above Range</b> <b>Spring 2016</b> <b>(N = 88)</b>		
<b>Number of Tasks</b>	<b>n</b>	<b>%</b>
Seven	70	79.5%
Six	9	10.2%
Five	5	5.7%
Four	0	0.0%
Three	0	0.0%
Two	2	2.3%
One	2	2.3%
Zero	0	0.0%

*ii. MAP Reading Test for K5 Through Fifth Graders*

K5- through fifth-grade literacy skills were assessed using the MAP reading test. MAP tests are computerized, adaptive tests that measure student skills and provide educators with the information necessary to build a curriculum that meets their students' needs. Every item on the MAP tests corresponds to a value on the Rasch unit (RIT) scale. A level of difficulty is assigned to each item and each value represents an equal interval measurement, meaning that the difference between scores is the same regardless of where the student scores on the scale. The RIT scale shows student understanding, regardless of grade level, which allows easy comparison from year to year. Educators

can use the RIT reference chart to determine the students' level of understanding in three subject areas: reading, math, and language usage.<sup>31</sup>

MAP scores can be used to measure progress in a number of ways.

- Based on the student's grade level and his/her fall RIT score, he/she receives a spring target score. At the time of the spring test, progress can be measured by whether the student met his/her target score.
- Teachers, parents, and students may measure growth based on the change in RIT scores from the first test to the last test during the school year. Because the tests are scored so that an increase in one point is the same regardless of where the student falls on the scale, progress may be determined by measuring how many RIT points the student gained or lost from one test to the other.
- In 2015, the Northwest Evaluation Association (NWEA) conducted a new nationwide study of student performance. As a result of each nationwide study, a normative mean, or average, is assigned for each grade level at the time of the fall, winter, and spring tests. Student progress can be measured by comparing each student's performance to these nationally normed scores for his/her grade level.

MAS elected to use a combination of these methods for their local measure this year. The school created one set of goals for students who were above the normative mean for their grade level at the time of the fall test, and another set of goals for students who were at or below the normative mean for their grade level in the fall. K5 through second graders who were above the normative mean were expected to gain at least six RIT points from fall to spring; third and fourth graders were expected to increase their RIT scores by at least four points; and fifth graders were expected to gain two RIT points by the time of the spring test.

For students at or below the normative mean for their grade level, progress was determined by examining whether the student met the MAP growth target based on his/her fall test score and current grade level; students who met their growth target for the year made adequate progress for

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<sup>31</sup> Northwest Evaluation Association, retrieved from <http://www.nwea.org/products-services/computer-based-adaptive-assessments/map>

the year. The school's overall goal was that at least 70.0% of students in K5 through fifth grades who took both the fall and spring MAP assessments would make progress as described above.

A total of 472 K5 through fifth graders completed the fall and spring MAP reading tests. At the time of the fall test, 140 (29.7%) students were above the normative mean for their grade level, while 332 (70.3%) students were at or below the normative mean. Of the 140 students who were above the normative mean for their grade level in the fall, 108 (77.1%) students met the goal as described above; 196 (59.0%) of the 332 students at or below the normative mean for their grade level in the fall met the MAP growth target at the time of the spring test (Table 2). Overall, 64.4% (304 of 472) of students progressed from fall to spring, falling short of the primary/elementary academies' MAP reading goal.

**Table 2**

**Milwaukee Academy of Science  
Local Measures of Academic Progress: MAP Reading Assessment  
Progress for K5 Through 5th Graders  
Fall 2015 to Spring 2016  
(N = 472)**

<b>Grade Level</b>	<b>N</b>	<b>Met Goal</b>	
		<b>n</b>	<b>%</b>
<b>Students Above the Normative Mean in the Fall</b>			
K5	30	28	93.3%
1st	29	28	96.6%
2nd	25	19	76.0%
3rd	20	17	85.0%
4th	22	7	31.8%
5th	14	9	64.3%
<b>Total</b>	<b>140</b>	<b>108</b>	<b>77.1%</b>
<b>Students at or Below the Normative Mean in the Fall</b>			
K5	59	40	67.8%
1st	52	29	55.8%
2nd	57	29	50.9%
3rd	56	24	42.9%
4th	49	26	53.1%
5th	59	48	81.4%
<b>Total</b>	<b>332</b>	<b>196</b>	<b>59.0%</b>

b. *Mathematics*

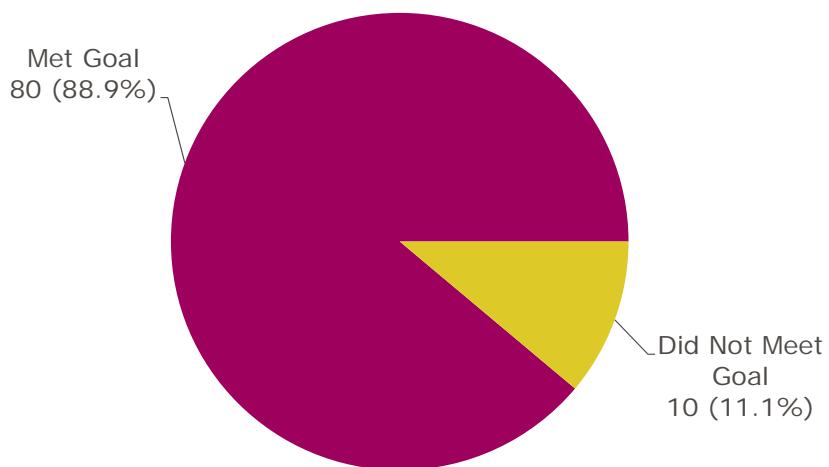
i. *Math Skills Assessment for K4 Students*

To assess student progress in mathematics, the school set a goal that at least 80.0% of K4 students who completed both the fall and spring math skill assessments would acquire at least 80.0% of the math competencies designated as benchmarks for their grade level at the time of the spring assessment. MAS staff designed the math skills assessments, which are based on the SRA Real Math curriculum; the skills assessments are aligned to the Common Core standards for K4 students.

At the time of the spring assessment, 88.9% of the 90 K4 students who completed both the fall and spring assessments had met the math goal, exceeding the school's goal (Figure 3).

Figure 3

**Milwaukee Academy of Science  
K4 Math Assessment  
2015–16\***



N = 90

\*Includes students who completed both tests.

*ii. MAP Math Test for K5 Through Fifth Graders*

MAP assessments and the varying methods available for tracking student progress using MAP results are described in the reading section above. As with reading, the school set math progress goals for students in K5 through fifth grade who were above the normative mean for their grade level at the time of the fall test and for students who were at or below the normative mean for their grade level in the fall. K5 through second graders above the normative mean were expected to gain at least six RIT points from fall to spring; third and fourth graders were expected to increase their RIT scores by at least four points, and fifth graders were expected to improve by at least two points by the time of the spring test.

For students at or below the normative mean for their grade level, progress was determined by examining whether the student met the MAP growth target based on his/her fall test score and current grade level; students who met their growth target for the year were considered to have made adequate progress for the year. The school's overall goal was that at least 70.0% of students in first through fifth grade who took both the fall and spring MAP assessments would make progress as described above.

A total of 470 K5 through fifth graders completed the fall and spring MAP math tests. At the time of the fall test, 137 (29.1%) students were above the normative mean for their grade level while 333 (70.9%) students were at or below the normative mean. Of the 137 students who were above the normative mean for their grade level in the fall, 126 (92.0%) students met the goal as described above, and 175 (52.6%) of the 333 students at or below the normative mean for their grade level in the fall met the MAP growth target at the time of the spring test (Table 3). Overall, 64.0% (301 of 470) of students progressed from fall to spring, falling short of the primary/elementary academies' MAP math goal.

**Table 3**

**Milwaukee Academy of Science  
Local Measures of Academic Progress: MAP Math Assessment  
Progress for K5 Through 5th Graders  
Fall 2015 to Spring 2016  
(N = 470)**

<b>Grade Level</b>	<b>N</b>	<b>Met Goal</b>	
		<b>n</b>	<b>%</b>
<b>Students Above the Normative Mean in the Fall</b>			
K5	25	25	100.0%
1st	34	34	100.0%
2nd	31	25	80.6%
3rd	21	18	85.7%
4th	14	12	85.7%
5th	12	12	100.0%
<b>Total</b>	<b>137</b>	<b>126</b>	<b>92.0%</b>
<b>Students at or Below the Normative Mean in the Fall</b>			
K5	64	40	62.5%
1st	44	25	56.8%
2nd	50	22	44.0%
3rd	54	22	40.7%
4th	59	25	42.4%
5th	62	41	66.1%
<b>Total</b>	<b>333</b>	<b>175</b>	<b>52.6%</b>

c. *Writing*

To assess student skills in writing, teachers judged student writing samples at the end of the school year and assigned a score to students in each of six domains: purpose and focus, organization and coherence, development of content, sentence fluency, word choice, and grammar. For each domain, students received a score of one for minimal control, two for basic control, three for adequate control, four for proficient control, and five for advanced control; and these were totaled for an overall score. An overall score of 18 or more indicated the student was writing at grade level. The school's

goal was for 75.0% of students in third through fifth grades to achieve an overall average score of 18 or more.

Students scored, on average, 19.2 points; nearly three quarters (155 of 207, or 74.9%) of third-through fifth-grade students enrolled for the entire year reached a score of 18 or more, meeting the school's goal in significant part (Table 4).

<b>Table 4</b>				
<b>Milwaukee Academy of Science</b>				
<b>Writing Skills for 3rd Through 5th Graders Based on Teacher Assessment</b>				
<b>2015–16</b> <b>(N = 207)</b>				
<b>Grade</b>	<b>n</b>	<b>Writing Score Average</b>	<b>Number Who Met Goal*</b>	<b>Percentage Who Met Goal</b>
3rd	68	18.6	47	69.1%
4th	70	19.2	53	75.7%
5th	69	19.7	55	79.7%
<b>Total</b>	<b>207</b>	<b>19.2</b>	<b>155</b>	<b>74.9%</b>

\*Received a score of 18 or higher.

*d. IEP Goals for Special Education Students*

This year, the goal of the primary/elementary academies was that at least 80.0% of special education students would meet one or more goals defined on their IEPs, as assessed by the participants in their most recent annual IEP reviews. There were 73 special education students enrolled in the primary/elementary academies at the end of the year; 30 of those students were new to MAS this year and/or had initial IEPs that were not due for an assessment of student progress toward goals during the 2015–16 school year. Of the 43 students who were enrolled in special education at MAS last year and had an IEP review this year, 40 (93.0%) students met at least one of their IEP goals, exceeding the school's goal.

2. Junior Academy

a. *MAP Reading Assessment for Sixth, Seventh, and Eighth Graders*

As described earlier in this report, MAP scores can be used in several ways to measure student reading progress. The junior academy elected to use a combination of the different methods to measure progress for students in sixth through eighth grades. Specifically, students who were above the normative mean for their grade level at the time of the fall test were expected to increase their scores by at least one RIT point at the time of the spring test. Students who were at or below the normative mean for their grade in the fall were expected to meet the MAP growth target based on their fall RIT score and current grade level. The school's overall goal was that at least 73.0% of junior academy students would show progress as described above.

A total of 208 sixth through eighth graders completed both the fall and spring MAP reading tests. At the time of the fall test, 55 (26.4%) students were above the normative mean for their grade level while 153 (73.6%) students were at or below the normative mean. Of the 55 students who were above the normative mean for their grade level in the fall, 43 (78.2%) met the goal as described above; 126 (82.4%) of the 153 students at or below the normative mean for their grade level in the fall met the MAP growth target at the time of the spring test (Table 5). Overall, 81.3% (169 of 208) of students progressed from fall to spring, exceeding the junior academy's MAP reading goal.

**Table 5**

**Milwaukee Academy of Science**  
**Local Measures of Academic Progress: MAP Reading Assessment**  
**Progress for 6th Through 8th Graders**  
**Fall 2015 to Spring 2016**  
**(N = 208)**

<b>Grade Level</b>	<b>N</b>	<b>Met Goal</b>	
		<b>n</b>	<b>%</b>
<b>Students Above the Normative Mean in the Fall</b>			
6th	15	13	86.7%
7th	17	15	88.2%
8th	23	15	65.2%
<b>Total</b>	<b>55</b>	<b>43</b>	<b>78.2%</b>
<b>Students at or Below the Normative Mean in the Fall</b>			
6th	52	38	73.1%
7th	56	50	89.3%
8th	45	38	84.4%
<b>Total</b>	<b>153</b>	<b>126</b>	<b>82.4%</b>

*b. MAP Math Assessment for Sixth, Seventh, and Eighth Graders*

The junior academy set a local math goal similar to the reading goal described in the previous section. Specifically, students who were above the normative mean for their grade level at the time of the fall test were expected to increase their scores by at least one RIT point at the time of the spring test. Students who were at or below the normative mean for their grade in the fall were expected to meet the MAP growth target based on their fall RIT score and current grade level. The school's overall goal was that at least 73.0% of junior academy students would show progress as described above.

A total of 207 sixth- through eighth-grade students completed both the fall and spring MAP math tests. At the time of the fall test, 69 students were above the normative mean for their grade level, while 138 (66.7%) students were at or below mean. Of the 69 students who were above the normative mean for their grade level in the fall, 62 (89.9%) students met the goal as described above;

114 (82.6%) of the 138 students at or below the normative mean for their grade level in the fall met the MAP growth target at the time of the spring test (Table 6). Overall, 85.0% of students (176 of 207) progressed from fall to spring, exceeding the junior academy's MAP math goal.

<b>Table 6</b>			
<b>Milwaukee Academy of Science</b> <b>Local Measures of Academic Progress: MAP Math Assessment</b> <b>Progress for 6th Through 8th Graders</b> <b>Fall 2015 to Spring 2016</b> <b>(N = 207)</b>			
<b>Grade Level</b>	<b>N</b>	<b>Met Goal</b>	
		<b>n</b>	<b>%</b>
<b>Students Above the Normative Mean in the Fall</b>			
6th	13	12	92.3%
7th	24	21	87.5%
8th	32	29	90.6%
<b>Total</b>	<b>69</b>	<b>62</b>	<b>89.9%</b>
<b>Students at or Below the Normative Mean in the Fall</b>			
6th	54	44	81.5%
7th	48	39	81.3%
8th	36	31	86.1%
<b>Total</b>	<b>138</b>	<b>114</b>	<b>82.6%</b>

c. *Writing*

At the end of the school year, teachers judged student writing samples in six domains: purpose and focus, organization and coherence, development of content, sentence fluency, word choice, and grammar. Teachers assign zero to five points in each of the six domains and combine them for an overall writing score. For junior academy students, an overall score of 18 or more indicated that the student was writing at grade level. The goal was that at least 73.0% of students in sixth through eighth grades would achieve a score of 18 or more. Students scored, on average, 21.1

points, and 79.9% (163 of 204) of students received a score of 18 or more, exceeding the junior academy's writing goal (Table 7).

<b>Table 7</b>				
<b>Milwaukee Academy of Science Junior Academy Writing Skills Based on Teacher Assessment 2015–16 (N = 204)</b>				
<b>Grade</b>	<b>n</b>	<b>Writing Score Average</b>	<b>Number Who Met Goal*</b>	<b>Percentage Who Met Goal</b>
6th	66	24.3	59	89.4%
7th	72	19.3	51	70.8%
8th	66	19.8	53	80.3%
<b>Total</b>	<b>204</b>	<b>21.1</b>	<b>163</b>	<b>79.9%</b>

\*Received a score of 18 or higher.

*d. IEP Goals for Special Education Students*

This year, the goal for the junior academy was that 80.0% of special education students would meet one or more goals on their IEP, as assessed by the participants in their most recent annual IEP review. At the end of the year, 26 special education students in sixth through eighth grades had completed IEPs; 11 of those students were new to MAS this year and/or had initial IEPs developed. Of the 15 students who were enrolled in special education at MAS last year and had IEP reviews, 14 (93.3%) met one or more of the goals in their IEP, exceeding the junior academy's special education goal.

3. High School

a. *Literacy Progress Based on the Scholastic Reading Inventory*<sup>32</sup>

The school administered the Scholastic Reading Inventory (SRI) to high school students in the fall and again in the spring. The goal was that at least 60.0% of students would show improvement in scores, called Lexile measures, of at least 13 points. Lexile measures can range from 0 (beginning reader) to 1,700 and are used to help students find books that align with their reading skills.<sup>33</sup> Lexile levels cannot be converted into grade-level units.<sup>34</sup>

Of 164 students with comparable SRI measures, 99 (60.4%) showed improvement (as measured by a 13-point increase) in reading skills, meeting the high school's reading goal. On average, students improved by 38.0 points (Table 8).

<b>Table 8</b>				
<b>Milwaukee Academy of Science High School Literacy Progress Based on SRI Measures 2015–16 (N = 164)</b>				
<b>Grade</b>	<b>n</b>	<b>Number Who Met Goal*</b>	<b>Percentage Who Met Goal</b>	<b>Average Increase in Lexile Measure</b>
9th	65	37	56.9%	38.2
10th	51	28	54.9%	23.6
11th	28	22	78.6%	58.8
12th	20	12	60.0%	44.8
<b>Total</b>	<b>164</b>	<b>99</b>	<b>60.4%</b>	<b>38.0</b>

\*Improved by 13 or more points.

<sup>32</sup> All students who were new to MAS this year were administered the Brigance reading assessment within 60 days of enrollment.

<sup>33</sup> The Lexile Framework for Reading, retrieved from [www.lexile.com/about-lexile/lexile-overview](http://www.lexile.com/about-lexile/lexile-overview); <https://www.lexile.com/about-lexile/grade-equivalent/>

<sup>34</sup> The Lexile Framework for Reading, retrieved from [www.lexile.com/about-lexile/grade-equivalent/grade-equivalent-chart/](http://www.lexile.com/about-lexile/grade-equivalent/grade-equivalent-chart/)

b. *Mathematics Progress Based on the Comprehensive Math Assessment*

To assess math progress for high school students, the school set a goal that at least 65.0% of students in each math class would attain a score of 70.0% or more on their comprehensive course examinations at the end of the school year.<sup>35</sup> Scores were reported as the percentage of items a student got correct. Results from exams at the end of the year indicate that, on average, students scored 63.8% correct. Of the 161 students with scores available, 49.1% scored 70.0% or higher, falling short of the school's goal of 65.0% (Table 9).

<b>Table 9</b>				
<b>Milwaukee Academy of Science High School: Percentage Correct on End-of-Year Math Assessment (N = 161)</b>				
<b>Grade</b>	<b>n</b>	<b>Met Goal*</b>		<b>Avg. Score</b>
		<b>n</b>	<b>%</b>	
9th	64	13	20.3%	51.5%
10th	51	37	72.5%	72.3%
11th	25	14	56.0%	68.5%
12th	21	15	71.4%	75.1%
<b>Total</b>	<b>161</b>	<b>79</b>	<b>49.1%</b>	<b>63.8%</b>

\*Scored 70% or better on the end-of-year math assessment.

c. *Writing*

At the end of the school year, teachers judged student writing samples and assigned a score to each student. Student writing skills were assessed in six domains: purpose and focus, organization and coherence, development of content, sentence fluency, word choice, and grammar. Each domain was assigned a score from 0 to 5, and the scores from each domain were totaled. A score of 18 or higher indicated that the student was writing at grade level. The goal was that 65.0% of students in each grade level enrolled for the entire year would reach a score of 18 or more.

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<sup>35</sup> The school tested all new students' math skills, using the Wide Range Achievement Test, within 60 days of enrollment.

Students scored, on average, 19.4 points. Overall, 73.5% of students received a score of 18 or higher, but only 62.5% of ninth graders met the goal. Therefore, the school met the goal for tenth through twelfth grades, but fell just short of the goal for ninth graders (Table 10).

<b>Table 10</b>				
<b>Milwaukee Academy of Science High School Writing Skills Based on Teacher Assessment 2015-16 (N = 166)</b>				
<b>Grade</b>	<b>n</b>	<b>Writing Score Average</b>	<b>Number Who Met Goal*</b>	<b>Percentage Who Met Goal</b>
9th	64	18.6	40	62.5%
10th	53	19.4	41	77.4%
11th	28	19.8	23	82.1%
12th	21	21.1	18	85.7%
<b>Total</b>	<b>166</b>	<b>19.4</b>	<b>122</b>	<b>73.5%</b>

\*Received a score of 18 or higher.

*d. IEP Goals for Special Education Students*

This year, the goal for the high school was that 80.0% of special education students would meet one or more goals on the IEP, as assessed by the participants in their most recent annual IEP review. At the end of the year, there were 18 special education students with completed IEPs in ninth through twelfth grades. Sixteen of those students were enrolled in special education at MAS last year; 15 (93.8%) of those students met one or more of the goals in their IEP. The high school met its special education goal this year.

**E. Additional Requirements for High School Students**

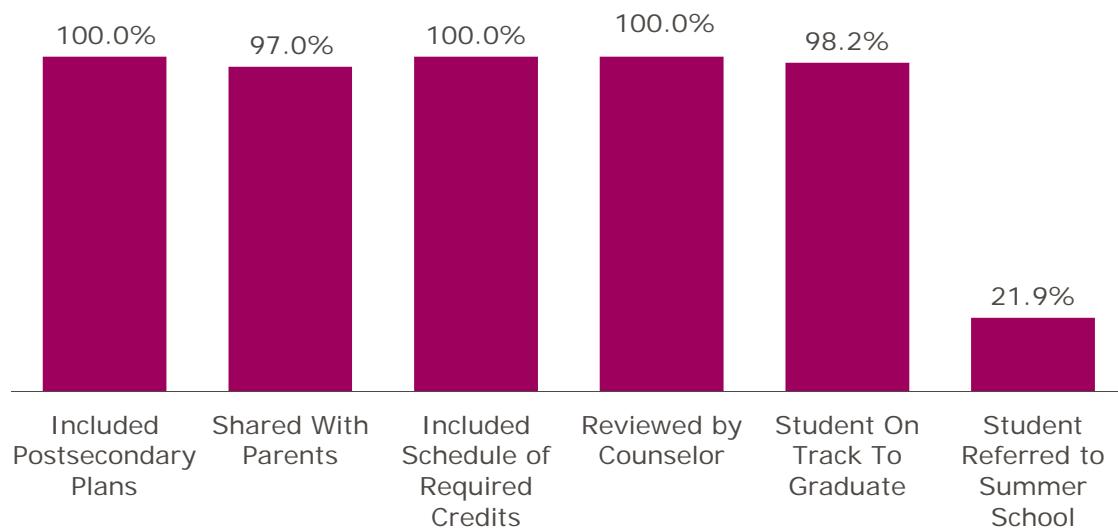
In addition to local and externalized measures, the high school must also measure completion of student graduation plans and track students' progress toward graduation.

## 1. Graduation Plans

All 169 high school students enrolled at the end of the year developed a graduation plan. All of the completed graduation plans included the students' postsecondary plans, included a schedule reflecting the credits required to graduate, and were reviewed by the counselor. Most (97.0%) plans were shared with parents. Counselors reviewed the plans, in part to ensure that students were on track to graduate and in part to determine whether a student should be referred for summer school. Based on those reviews, 98.2% of students were on track to graduate in four years, and 21.9% were referred to summer school (Figure 4). Additionally, each eleventh- and twelfth-grade student was required to meet with the counselor during the first quarter of the school year to discuss his/her graduation plan; all of the students met with the counselor during the school year.

Figure 4

### **Milwaukee Academy of Science High School Graduation Plans 2015–16**



N = 169

Note: Includes students enrolled at the end of the school year.

2. High School Graduation Requirements

MAS's graduation requirement policy states that all ninth graders who earned at least six credits would be promoted to tenth grade; all tenth graders who accumulated at least 12 credits would be promoted to eleventh grade; all eleventh graders who accumulated at least 18 credits would be promoted to twelfth grade; and all twelfth graders who earned 22 or more credits, including the required courses, would graduate.<sup>36</sup>

MAS provided credit and promotion information for high school students who finished the school year at MAS. Of 169 students, 144 (85.2%) earned at least the minimum number of credits to be promoted to the next grade or, in the case of twelfth graders, to graduate from high school (Table 11).

<b>Table 11</b>				
<b>Milwaukee Academy of Science High School Graduation Requirements 2015-16 (N = 169)</b>				
<b>Grade</b>	<b>n</b>	<b>Average Credits Earned/ Accumulated</b>	<b>Promoted/Graduated</b>	
			<b>n</b>	<b>%</b>
9th	65	6.5	49	75.4%
10th	53	13.1	46	86.8%
11th	28	20.0	26	92.9%
12th	23	26.7	23	100.0%
<b>Total</b>	<b>169</b>	—	<b>144</b>	<b>85.2%</b>

<sup>36</sup> This grade-level promotion schedule reflects the credits needed at each grade level in order to graduate in four years. IEPs for some special education students indicate that the student will need more than four years of study to graduate; these students are promoted based on the following credit requirements: 4.5 credits to move from ninth to tenth grade; nine credits to move from tenth to eleventh grade; 13.5 credits to move from eleventh to twelfth grade; and 22 credits to graduate.

## **F. Standardized Measures of Educational Performance**

In 2015–16, DPI required that all Wisconsin schools administer PALS assessments to K4 through second graders; the Forward Exam in English/language arts to third through eighth graders, in science to fourth and eighth graders, and in social studies to fourth, eighth, and tenth graders; the Aspire to ninth and tenth graders; and the ACT to eleventh graders.<sup>37</sup> Additionally, the CSRC required that high schools administer the ACT to twelfth-grade students in the fall of the school year. These tests and results are described in the sections of this report that follow.

### **1. Primary/Elementary Academies and Junior Academy**

#### **a. *PALS for K4 Through Second Graders***

Beginning in 2014–15, DPI required that all students in K4 through second grade take the PALS assessment in both the fall and spring of the school year. PALS aligns with both the Common Core English standards and the Wisconsin Model Early Learning Standards.

There are three versions of the PALS assessment: the PALS-PreK for K4 students, the PALS-K for K5 students, and the PALS 1–3 for students in first through third grades.<sup>38</sup> The PALS-PreK includes five required tasks (name writing, uppercase alphabet recognition, beginning sound awareness, print and word awareness, and rhyme awareness). There are two additional tasks (lowercase alphabet recognition and letter sounds) that students complete only if they reach a high enough score on the uppercase alphabet task. Finally, there is one optional task (nursery rhyme awareness) that schools can choose to administer or not. Because this latter task is optional, CRC does not report data on nursery rhyme awareness.

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<sup>37</sup> Per the contract with the CSRC, the school administered all tests required by DPI within the timeframe specified by DPI; this includes the PALS. The timeframe for the fall PALS assessment was October 12 to November 6, 2015, for K4 and K5 students, and September 14 to October 9, 2015, for first and second graders. The spring testing window was April 25 to May 20, 2016, for all grade levels. The timeframe for the Forward Exam was March 28 to May 20, 2016.

<sup>38</sup> Although the PALS 1–3 can be used for students in third grade, DPI requires the test only for K4 through second graders; third-grade students are tested using the Forward Exam.

The PALS-K includes six required tasks (rhyme awareness, beginning sound awareness, alphabet knowledge, letter sounds, spelling, and concept of word) and one optional task (word recognition in isolation). The PALS 1–3 is composed of three required tasks (spelling, word recognition in isolation, and oral reading in context). The PALS 1–3 also includes one additional required task during the fall administration for first graders (letter sounds) and additional tasks for students who score below the summed score benchmark. These additional tasks are used to gather further diagnostic information about those students.

For the PALS-K and PALS 1–3, specific task scores are summed to obtain an overall summed score. For the PALS 1–3, the fall and spring summed scores are calculated using different task combinations. The summed score is then compared to benchmarks set for each grade level and test administration. Reaching or surpassing the benchmark is not an indicator that the student is reading at grade level; the benchmark simply helps teachers identify which students may have difficulty learning to read. For example, if the student’s summed score is below the designated benchmark for his/her grade level and test administration, the student is identified as requiring additional instruction to master basic literacy skills.<sup>39</sup> Students who are at or above the benchmark have the basic skills required to, with targeted instruction, continue learning to read without intervention. Teachers may use PALS assessment results to help plan classroom reading and spelling instruction according to student needs.

There is no similar summed score or set benchmarks for the PALS-PreK. Because students enter K4 with different levels of exposure to books, letters, and sounds, the purpose of the PALS-PreK is to learn students’ abilities as they enter K4 in the fall. In the spring, developmental ranges for each PALS task indicate whether the student is at the expected developmental stage for a four-year-old.

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<sup>39</sup> Information retrieved from <http://www.palswisconsin.info>

i. *PALS-PreK*

A total of 88 K4 students completed the PALS-PreK in the fall and spring. Although the spring developmental ranges relate to expected age-level development by the time of the spring semester, CRC applied the ranges to both test administrations to see if more students were at or above the range for each test by the time of the spring administration. The number of students at or above the developmental range increased for each task from fall to spring (Table 12).

<b>Table 12</b> <b>Milwaukee Academy of Science</b> <b>PALS-PreK for K4 Students</b> <b>Students at or Above the Spring Developmental Range</b> <b>2015–16</b> <b>(N = 88)</b>				
<b>Task</b>	<b>Fall</b>		<b>Spring</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
Name writing	56	63.6%	84	95.5%
Uppercase alphabet recognition	33	37.5%	84	95.5%
Lowercase alphabet recognition*	23	95.8%	83	100.0%
Letter sounds*	22	91.7%	82	98.8%
Beginning sound awareness	47	53.4%	86	97.7%
Print and word awareness	43	48.9%	82	93.2%
Rhyme awareness	30	34.1%	76	86.4%

\*Fall percentages for this task are based on an N size of 24, as there were 24 students who qualified to complete the lowercase and letter sound tasks in the fall. Spring percentages for this task are based on an N size of 83, as there were 83 students who qualified in the spring.

ii. *PALS-K and PALS 1–3*

As mentioned above, each of these tests has a summed score benchmark for the fall and spring (Table 13). As noted above, the fall and spring summed score benchmarks are calculated using different task combinations. Therefore, the spring benchmark may be lower than the fall benchmark. Additionally, student benchmark status is only a measure of whether the student is where he/she

should be developmentally to continue becoming a successful reader; results from fall to spring should not be used as a measure of individual student progress.

<b>Table 13</b>		
<b>PALS-K and PALS 1–2 Summed Score Benchmarks</b>		
<b>PALS Assessment</b>	<b>Fall Benchmark</b>	<b>Spring Benchmark</b>
PALS-K	28	81
PALS: 1st Grade	39	35
PALS: 2nd Grade	35	54

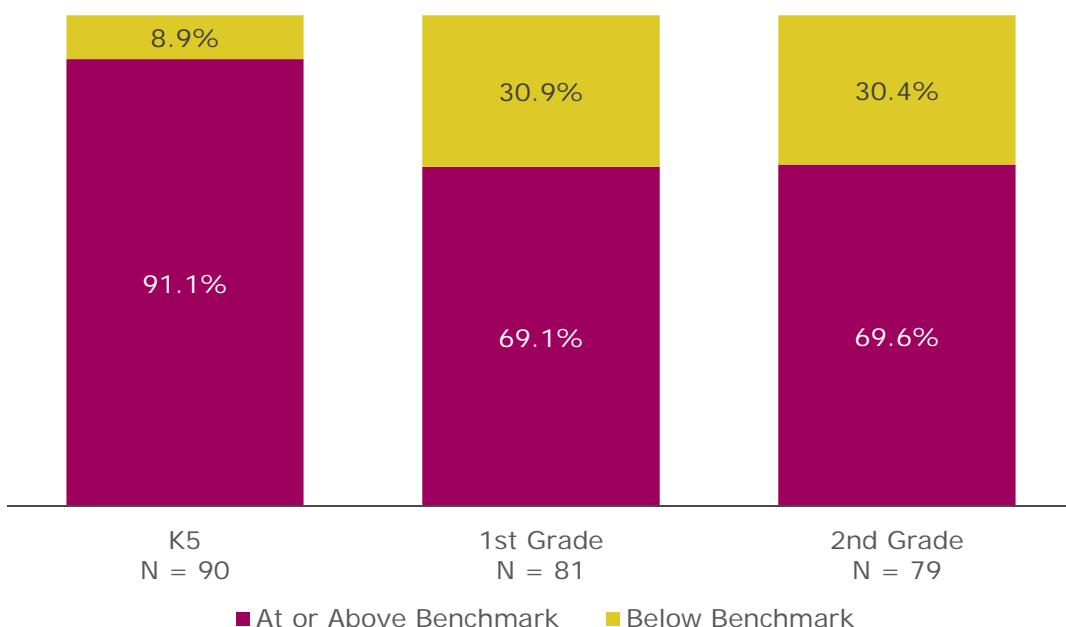
CRC first examined reading readiness for any student who completed the fall or spring tests. For each grade level, a larger percentage of students who completed the fall test were at the fall benchmark compared to the percentage of students who completed the spring test (Table 14).

<b>Table 14</b>			
<b>Milwaukee Academy of Science Reading Readiness for K5 and 1st/2nd Graders Fall 2015 and Spring 2016</b>			
<b>Grade Level and Test Period</b>	<b>N</b>	<b>Students at or Above Benchmark</b>	
		<b>n</b>	<b>%</b>
<b>K5</b>			
Fall	96	91	94.8%
Spring	93	83	89.2%
<b>1st Grade</b>			
Fall	93	85	91.4%
Spring	84	58	69.0%
<b>2nd Grade</b>			
Fall	89	65	73.0%
Spring	82	55	67.1%

Next, CRC looked at spring benchmark status for students who completed both the fall and spring assessments. At the time of the spring assessment, most (91.1%) K5 students and more than two thirds of first and second graders (69.1% and 69.6%, respectively) were at or above the spring summed score benchmark for their grade level (Figure 5).

Figure 5

### Milwaukee Academy of Science Spring 2016 Reading Readiness Students With Fall and Spring PALS Scores



b. *Wisconsin Forward Exam for Third Through Eighth Graders*<sup>40</sup>

In the spring of 2016, the Wisconsin Forward Exam replaced the Badger Exam and the Wisconsin Knowledge and Concepts Examination as the state's standardized test for English/language

<sup>40</sup> Information taken from the Wisconsin Department of Public Instruction website and the Wisconsin Forward Exam family brochure. For more information, visit <http://dpi.wi.gov/assessment/forward> and <http://dpi.wi.gov/sites/default/files/imce/assessment/pdf/Forward%20brochure%20for%20families.pdf>.

arts and math for students in third through eighth grades, science for students in fourth and eighth grades, and social studies for students in fourth, eighth, and tenth grades. The Forward Exam was administered in the spring of the school year.<sup>41</sup> The test is computerized but not adaptive, i.e., the version of the test the student sees does not vary based on his/her responses. The Forward Exam was developed and administered by the Data Recognition Center (DRC), a Minnesota-based company with a local office in Madison, Wisconsin. DRC will also be responsible for reporting results.

The Forward Exam is a summative assessment that provides information about what students know in each content area. Each student receives a score based on his/her performance in each subject being tested. Scores are translated into one of four levels: advanced, proficient, basic, and below basic.

In the spring of 2016, 425 third- through eighth-graders completed the English/language arts and math assessments. Of all students enrolled in the school for the entire school year (i.e., the third Friday of September until the date of the Forward test in the spring), 5.1% were proficient or advanced in English/language arts and 10.1% were proficient or advanced in math.<sup>42</sup> Results by grade level are presented in the figures below (Figure 6 and Figure 7).

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<sup>41</sup> The Wisconsin Forward Exam testing window was March 28 through May 20, 2016.

<sup>42</sup> This cohort of students is different than the cohort who were enrolled on the day of the assessment, which also includes students who enrolled during the school year. Among all 439 third- through eighth-grade students enrolled on the day of the test, 5.5% were proficient or advanced in English/language arts and 10.1% were proficient or advanced in math.

Figure 6

## Milwaukee Academy of Science Forward Exam English/Language Arts Assessment 2015–16

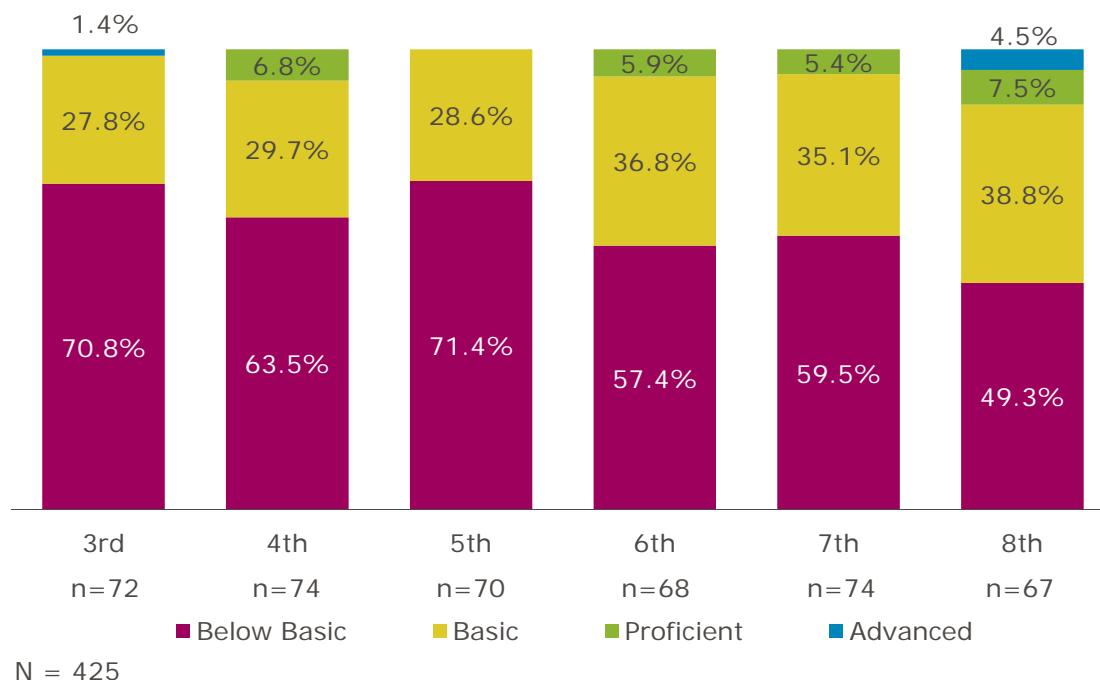
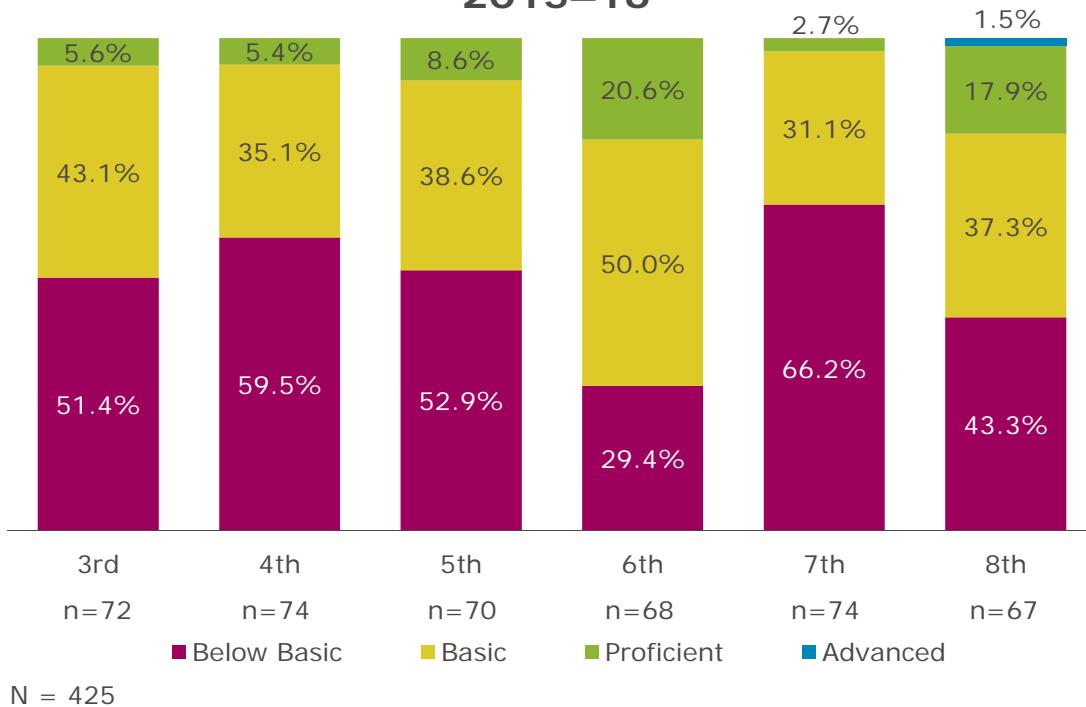
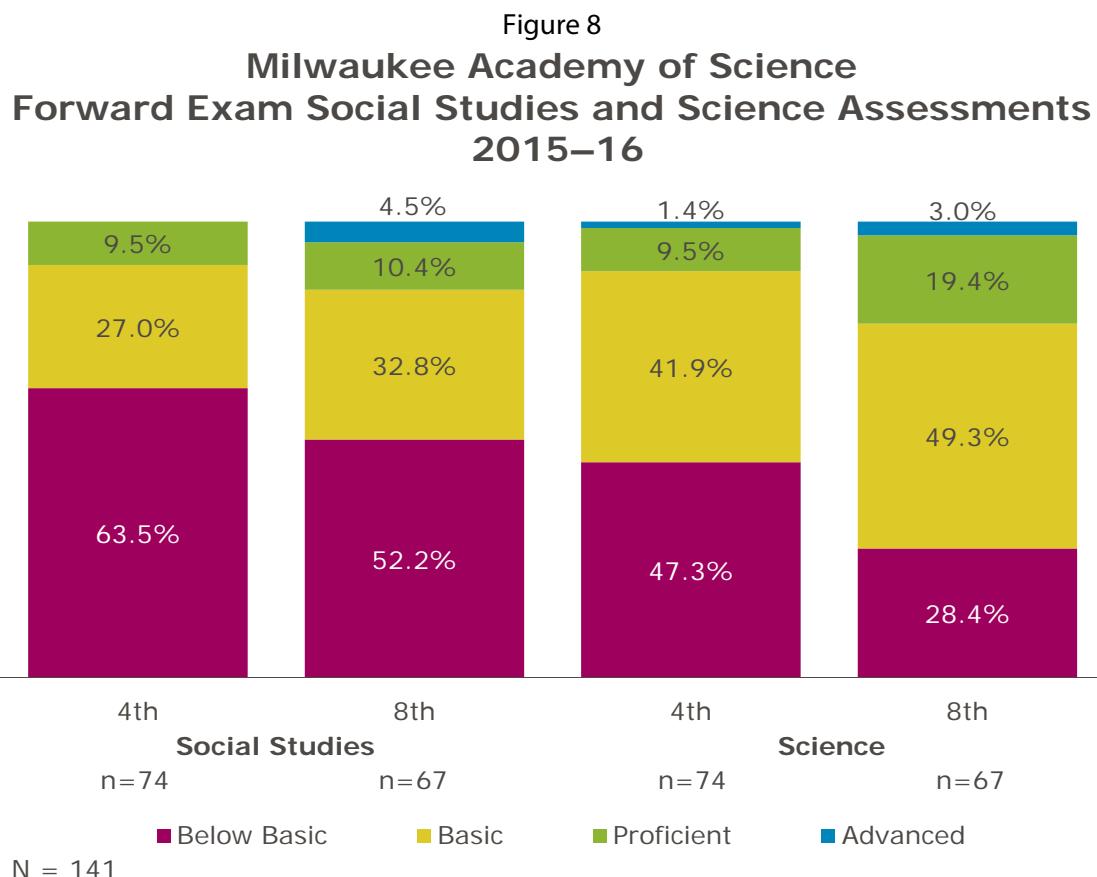


Figure 7

## Milwaukee Academy of Science Forward Exam Math Assessment 2015–16



Among the 141 fourth and eighth graders who completed the social studies and science tests, 12.0% were proficient or advanced in social studies and 16.3% were proficient or advanced in science (Figure 8).



## 2. High School

The CSRC requires that the Forward Exam social studies test be administered to all tenth-grade students in the timeframe established by DPI. Ninth- and tenth-grade students are required to take all subtests of the Aspire in the spring of the school year; eleventh-grade students are required to take the ACT Plus Writing and the ACT WorkKeys in the spring of the school year.<sup>43</sup> The CSRC requires that twelfth-grade students take the ACT or ACT Plus Writing in the fall semester (note that this is not a DPI requirement).

ACT has set college readiness benchmarks for the subject-specific subtests of both the Aspire and the ACT. The most recent benchmarks (published in 2013) for each grade level and test are shown in Table 15.<sup>44</sup>

<b>Table 15</b>			
<b>ACT College Readiness Benchmark Scores for the Aspire and ACT</b>			
<b>Subtest</b>	<b>9th-Grade Aspire</b>	<b>10th-Grade Aspire</b>	<b>11th-Grade ACT</b>
English	426	428	18
Math	428	432	22
Reading	425	428	22
Science	430	432	23
Composite*	427	430	21

\*ACT does not publish composite benchmark scores for the Aspire or the ACT. CRC created composite benchmark scores by averaging each grade level's benchmark scores from the four subtests, as published by ACT.

Student progress on these tests is based on year-to-year results, which are included in a separate section of this report. The results presented in the tables that follow reflect student achievement on the Aspire and ACT during the current school year.

<sup>43</sup> The assessment window for the Aspire was April 25 through May 27, 2016. The ACT Plus Writing test date for eleventh-grade students was March 1, 2016; March 15 was the make-up day. The test date for the eleventh grade ACT WorkKeys was March 2, 2016; the make-up date was March 16.

<sup>44</sup> For more information about ACT Aspire and ACT Plus Writing benchmarks, see the ACT Aspire website (<https://www.discoveractaspire.org>) and the ACT website ([www.act.org](http://www.act.org)).

a. *Aspire for Ninth and Tenth Graders*

The Aspire was administered in April and May 2016. Ninth- and tenth-grade students enrolled during those time periods completed the tests, meeting the CSRC expectation that students be tested.

A total of 67 ninth and 53 tenth graders completed the Aspire (Table 16).

<b>Table 16</b>				
<b>Milwaukee Academy of Science Aspire for 9th and 10th Graders</b>				
<b>Number of Students at or Above Benchmark on Subtests and Composite Score 2015–16</b>				
<b>Test Section</b>	<b>9th Grade (N = 67)</b>		<b>10th Grade (N = 53)</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
English	19	28.4%	20	37.7%
Math	3	4.5%	8	15.1%
Reading	13	19.4%	15	28.3%
Science	8	11.9%	10	18.9%
Composite*	7	10.4%	10	18.9%

\*ACT does not publish a benchmark for the Aspire composite score; CRC calculated an Aspire composite benchmark—equal to 427 for ninth graders and 430 for tenth graders—by averaging the benchmark scores from the four subtests.

b. *Wisconsin Forward Exam for Tenth Graders*

In the spring of 2016, 53 tenth graders took the Forward Exam social studies test (not shown). Just less than one fifth (10, or 18.9%) were proficient or advanced, 26.4% scored at the basic level, and 54.7% scored at the “below basic” level.

c. *ACT for Eleventh and Twelfth Graders*

The final CSRC expectation was that all eleventh graders take the ACT Plus Writing and the ACT WorkKeys in the time frame required by DPI (spring semester) and that twelfth graders take the ACT or ACT Plus Writing in the fall semester. There were 23 twelfth graders enrolled at the end of the

school year; all of those students completed testing as required. (Eight students completed the ACT, and 15 completed the ACT Plus Writing.) All 28 eleventh graders enrolled at the end of the year completed the ACT Plus Writing.

Composite ACT scores for eleventh graders ranged from 12 to 27, with an average of 16.6 (not shown). For twelfth graders, scores ranged from 13 to 29, with an average of 19.2 (not shown). Three (10.7%) eleventh graders and seven (30.4%) twelfth graders scored at or above the ACT composite benchmark of 21.25 (21 when rounding); see Table 17.

<b>Table 17</b>		
<b>Milwaukee Academy of Science</b>		
<b>Number of Students at or Above Benchmark for</b>		
<b>ACT Subtests and Composite Score</b>		
<b>11th and 12th Graders</b>		
<b>2015–16</b>		
<b>Subtest</b>	<b>n</b>	<b>%</b>
<b>11th Grade (N = 28)</b>		
English	5	17.9%
Math	2	7.1%
Reading	3	10.7%
Science	3	10.7%
Composite	3	10.7%
<b>12th Grade (N = 23)</b>		
English	11	47.8%
Math	3	13.0%
Reading	11	47.8%
Science	3	13.0%
Composite <sup>45</sup>	7	30.4%

<sup>45</sup> Seven (30.4%) of the 23 students who graduated this year received a composite score of 21 or higher on this year's ACT.

## **G. Multiple-Year Student Progress**

Year-to-year progress is measured by comparing scores on standardized tests from one year to the next. Year-to-year progress/performance expectations apply to all students who obtain test scores in consecutive years. In the fall of 2013, students in K4 through second grade began taking the PALS reading assessment. The PALS summed score benchmark is intended to show teachers which students require reading assistance; it is not to be used as an indicator that the student is reading at grade level. Additionally, there are three versions of the test—the PALS-PreK, the PALS, and the PALS 1–3—which include different formats, sections, and scoring. For these reasons, an examination of PALS results from one test to another provides neither a valid nor a reliable measure of student progress. Therefore, CRC only examined results for students who were in the first grade in 2015 and second grade in 2016 who had taken the PALS 1–3 during two consecutive years. The CSRC’s performance expectation was that at least 75.0% of students who were at or above the summed score benchmark in first grade would remain at or above the summed score benchmark as second graders in the subsequent school year.

Prior to 2014–15, the WKCE was used to measure year-to-year progress for students in grades four through eight. Because this is the first year the Forward Exam was administered, the 2015–16 results will be used as baseline data to measure student progress from 2015–16 to 2016–17.

Progress toward college readiness from ninth to tenth grade is assessed using benchmarks from the Aspire.<sup>46</sup>

Progress from tenth to eleventh grade is assessed using benchmarks and scale score improvement from the Aspire to the ACT. Due to the change from the PLAN to the Aspire in 2014–15, progress from tenth to eleventh grade cannot be validly measured, using available data, in the same

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<sup>46</sup> Prior to 2014–15, schools used the EXPLORE for ninth graders, the PLAN for tenth graders, and the ACT for eleventh and twelfth graders; beginning in 2014–15, ninth and tenth graders began taking the Aspire instead of the EXPLORE or the PLAN. ACT created benchmarks for the Aspire subtests by concording Aspire scores with the EXPLORE/PLAN benchmarks. These benchmarks will be used until ACT publishes updated Aspire benchmarks based on Aspire results.

way that progress was measured from the PLAN to the ACT in previous years. Therefore, year-to-year progress from tenth to eleventh grade will not be reported.

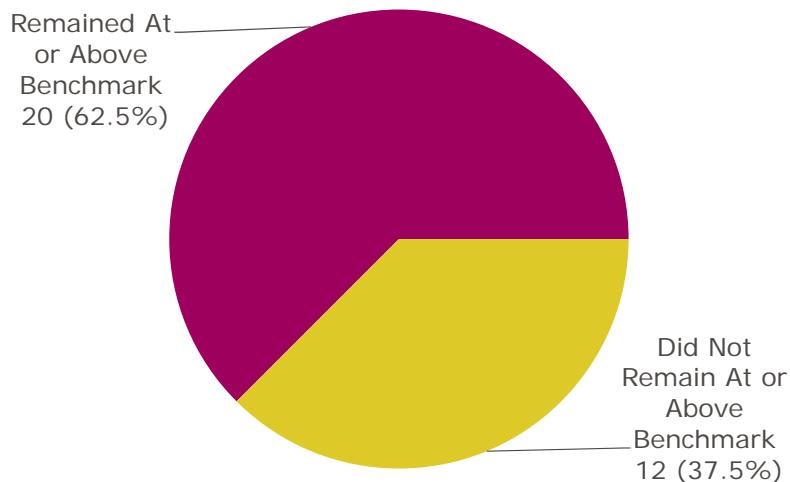
The CSRC required that multiple-year progress from EXPLORE to PLAN and PLAN to ACT be reported for students who met proficiency-level expectations (i.e., scored at benchmark or above), as well as for those students who did not meet benchmark expectations (i.e., tested below benchmark) in the 2014–15 school year. The expectation was that at least 75.0% of students at or above the benchmark the previous year would maintain benchmark the following year. For students below benchmark, the expectation was that at least 60.0% of students would either meet the benchmark the next year or improve their score by at least one point. Due to the change from EXPLORE and PLAN to the Aspire, these expectations cannot be applied to the year-to-year progress measures for high school students this year. Progress from 2014–15 to 2015–16 on the Aspire will be used as baseline data to set new expectations during subsequent years.

1. Second-Grade Performance Based on PALS

A total of 52 students completed the PALS spring assessment in 2014–15 as first graders and 2015–16 as second graders. Based on PALS results from the spring of 2015, 32 of those students were at or above the spring summed score benchmark as first graders; 20 of those 32 (62.5%) students remained at or above the summed score benchmark in the spring of 2016 as second graders (Figure 9).

Figure 9

**Milwaukee Academy of Science  
Year-to-Year Reading Readiness for  
Second-Grade Students\*  
2015–16**



N = 32

\*Second-grade students who completed PALS 1–3 in two consecutive years and were at or above benchmark as first graders

2. [Fourth- Through Eighth-Grade Performance on the Wisconsin Forward Exam](#)

This is the first year that the Forward Exam was administered. Year-to-year results will not be available until the next school year.

3. [Progress From the Spring 2015 Aspire to the Spring 2016 Aspire](#)

Students in ninth grade at MAS during the 2014–15 school year took the Aspire in the spring semester. The same ninth graders, if they were enrolled as tenth graders at MAS during 2015–16, took the Aspire in the spring of 2016.

Using the minimum benchmark scores for each grade level and subject area (see Table 18) on the Aspire, CRC examined student progress from ninth to tenth grade. There were 41 MAS students who took the Aspire in the spring of 2015 as ninth graders and in the spring of 2016 as tenth graders.

Of those students, at the time of the spring 2015 test, 16 (39.0%) were at or above the English benchmark, eight (19.5%) were at or above the benchmark in math, nine (22.0%) were at or above the benchmark for reading, and seven (17.1%) were at or above the benchmark for science; 10 (24.4%) students met the CRC-calculated composite score benchmark. The following sections describe progress for students who were at or above the 2015 benchmark for each test, as well as for students who were below the benchmark at the time of the 2015 test.

*a. Students at or Above Benchmark on the Spring 2015 Aspire*

Of the 16 students who were at or above the 2015 Aspire English benchmark, 81.3% maintained benchmark on the spring 2016 Aspire English test. Of the 10 students who met the composite benchmark in 2015, seven (70.0%) met the benchmark again in 2016. In order to protect student identity, CRC does not report results for cohorts with fewer than 10 students. Therefore, due to the small number of students who were at or above benchmark for the other subtests, CRC could not include results in this report (Table 18).

<b>Table 18</b>				
<b>Milwaukee Academy of Science Year-to-Year Student Progress on the Aspire Spring 2015 to Spring 2016 (N = 41)*</b>				
<b>Subtest</b>	<b>Students at or Above Benchmark on the Spring 2015 Aspire</b>		<b>Students Who Remained at or Above Benchmark on the Spring 2016 Aspire</b>	
	<b>N</b>	<b>%</b>	<b>n</b>	<b>%</b>
English	16	39.0%	13	81.3%
Math	8	19.5%	Cannot report due to n size	
Reading	9	22.0%	Cannot report due to n size	
Science	7	17.1%	Cannot report due to n size	
Composite**	10	24.4%	7	70.0%

\*Total N size for Tables 18 and 19.

\*\*ACT does not publish a benchmark for the Aspire composite score; CRC calculated a composite benchmark score by averaging the benchmark scores from the four subtests, as published by ACT.

b. *Students Below Benchmark on the Spring 2015 Aspire*

More than 60.0% of students progressed on the English subtest and the composite score (Table 19). More than 50.0% progressed on the reading and science subtests. Less than half (48.4%) of students who were below benchmark on the math test in 2015 had progressed at the time of the 2016 test. These results will be used by the CSRC to set future expectations related to progress for lower-achieving ninth- to tenth-grade students (i.e., those below benchmark as ninth graders).

<b>Table 19</b>								
<b>Milwaukee Academy of Science Year-to-Year Student Progress on the Aspire Spring 2015 to Spring 2016 (N = 41)*</b>								
<b>Subtest</b>	<b>Number of Students Below Benchmark in Spring 2015</b>		<b>Number of Students Below Benchmark in Spring 2015 Who Achieved Benchmark in Spring 2016</b>		<b>Number of Students Below Benchmark in Spring 2015 Who Improved By at Least One Point in Spring 2016</b>		<b>Overall Progress of Students Below Benchmark on the Spring 2015 Aspire</b>	
	<b>N</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
English	25	61.0%	4	16.0%	13	52.0%	<b>17</b>	<b>68.0%</b>
Math	33	80.5%	0	0.0%	16	48.5%	<b>16</b>	<b>48.4%</b>
Reading	32	78.0%	5	15.6%	14	43.8%	<b>19</b>	<b>59.4%</b>
Science	34	82.9%	1	2.9%	19	55.9%	<b>20</b>	<b>58.8%</b>
Composite**	31	75.6%	1	3.2%	20	64.5%	<b>21</b>	<b>67.7%</b>

\*Total N size for Tables 18 and 19.

\*\*ACT does not publish a benchmark for the Aspire composite score; CRC calculated a composite benchmark by averaging the benchmark scores from the four subtests.

4. Benchmark Progress From the Spring 2015 Aspire to the Spring 2016 ACT

Tenth graders at MAS during the 2014–15 school year took the Aspire in the spring semester. Those same tenth graders who were enrolled as eleventh graders at MAS during 2015–16 took the ACT during the spring of 2016. Progress from tenth to eleventh grade, as defined by the CSRC

expectations based on PLAN to ACT, cannot be validly measured using Aspire and ACT results.

Therefore, progress from tenth to eleventh grade could not be measured this year.

#### **H. CSRC School Scorecard**

In the 2009–10 school year, the CSRC piloted a scorecard for each school that it charters. The pilot ran for three years and in the fall of 2012, the CSRC formally adopted the scorecard to help monitor school performance. The scorecard includes multiple measures of student academic progress, such as performance on standardized tests and local measures. It also includes point-in-time academic achievement and engagement elements, such as attendance and student and teacher retention and return. The score provides a summary indicator of school performance. The summary score is then translated into a school status rating.

In 2014, the CSRC approved a new scoring system in order to make the scorecard percentages more meaningful and provide schools with greater opportunities to exhibit improvement. The new scoring system is based on the following scale.

A	93.4% – 100%	C	73.3% – 76.5%
A–	90.0% – 93.3%	C–	70.0% – 73.2%
B+	86.6% – 89.9%	D+	66.6% – 69.9%
B	83.3% – 86.5%	D	63.3% – 66.5%
B–	80.0% – 83.2%	D–	60.0% – 63.2%
C+	76.6% – 79.9%	F	0.0% – 59.9%

The percentage score is still translated into a school status level as in previous years, with small changes to the status-level cut scores. The previous and newly adopted cut scores are shown in Table 20.

<b>Table 20</b> <b>City of Milwaukee</b> <b>Educational Performance Rating Scale for Charter Schools</b>		
<b>School Status</b>	<b>Scorecard Total Percentage</b>	
	<b>Previous</b>	<b>Scale Adopted 8/12/14</b>
High-Performing/Exemplary	100% – 85%	83.3% – 100% (B to A)
Promising/Good	84% – 70%	70.0% – 83.2% (C– to B–)
Problematic/Struggling	69% – 55%	60.0% – 69.9% (D– to D+)
Poor/Failing	54% or less	0.0% – 59.9% (F)

The CSRC uses the score and rating to guide decisions regarding whether to accept a school's annual education performance and continue monitoring as usual and whether to recommend a school for a five-year contract renewal at the end of its fourth year of operation under its current contract. The CSRC's expectation is that schools will achieve a rating of 70.0% (promising/good) or better; if a school falls below 70.0%, the CSRC will carefully review the school's performance and determine whether a probationary plan should be developed.

The school scored 81.2% on the 2015–16 CSRC K4- through eighth-grade scorecard and 82.7% on the 2015–16 high school scorecard. This compares to 79.4% and 79.6% on the school's 2014–15 scorecards. See Appendix D for school scorecard information.

Additionally, for schools that have both students in kindergarten through eighth grade and students in high school, CRC calculated a weighted average score for the entire school (kindergarten through twelfth grade). The weighted average is simply a measure that takes into consideration the number of students to which it was applied. CRC assigned the weight of each individual report card's

score based on the number of students enrolled in the primary, elementary, and junior academies and the high school at the end of the school year. When combined, MAS had an overall weighted average score of 81.4% for the current school year, which compares to 79.4% for the 2014–15 school year.<sup>47</sup>

#### **I. DPI School Report Card**

DPI report cards for the 2015–16 school year were not yet available at the time of this report.

#### **IV. SUMMARY AND RECOMMENDATIONS**

This report covers the eighth year of MAS's operation as a City of Milwaukee charter school. The school has met all but two provisions of its contract with the City of Milwaukee and the subsequent CSRC requirements. In addition, the school scored 81.2% on the K4 through eighth grade scorecard and 82.7% on the high school scorecard. When combined, MAS had an overall weighted average score of 81.4%. Based on current and past contract compliance and the scorecard results, CRC's recommendation is that MAS continue regular, annual academic monitoring and reporting.

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<sup>47</sup> Of the 949 students enrolled at the end of the school year, 82.2% were in K4 through eighth grades and 17.8% were in high school. Those percentages were used to calculate the weighted scorecard percentages.

## **Appendix A**

### **Contract Compliance Chart**

**Table A**

**Milwaukee Academy of Science**  
**Overview of Compliance With Education-Related Contract Provisions**  
**2015–16**

<b>Section of Contract</b>	<b>Education-Related Contract Provision</b>	<b>Report Reference Page(s)</b>	<b>Contract Provision Met or Not Met</b>
Section I, B	Description of educational program; student population served.	pp. 2–5 and 16–19	Met
Section I, V	School will provide a copy of the calendar prior to the end of the previous school year.	p. 11	Met
Section I, C	Educational methods.	pp. 2–5	Met
Section I, D	Administration of required standardized tests:  a. K4 through 8th grade; and  b. 9th through 12th grade.	pp. 42–49  pp. 50–52	a. Met  b. Met
Section I, D	All new high school students tested within 60 days of first day of attendance in reading and math.	pp. 37–38	Met
Section I, D	Written annual plan for graduation.	p. 40	Met
Section I, D	<u>Academic criterion #1:</u> Maintain local measures, showing pupil growth in demonstrating curricular goals in reading, math, writing, and special education.	pp. 25–39	Met
Section I, D	<u>Academic criterion #2:</u> Year-to-year achievement measure for 1st through 12th grades.  Progress for elementary students at or above benchmark was not available this year.  a. PALS year-to-year expectations for students in 2nd grade: At least 75.0% of students at or above the summed score benchmark as 1st-grade students will remain at or above the summed score benchmark in 2nd grade.  b. Year-to-year results were not available for 3rd through 8th graders this year.  c. 9th-grade students at or above benchmarks on the EXPLORE: At least 75.0% will maintain benchmark on the PLAN the following spring.	N/A  a. pp. 45–46  b. N/A  c. N/A	N/A  a. Not met  b. N/A  c. N/A <sup>48</sup>

<sup>48</sup> Due to the change from EXPLORE/PLAN to Aspire in 2014–15, progress from the EXPLORE to the PLAN could not be measured this year.

**Table A**

**Milwaukee Academy of Science**  
**Overview of Compliance With Education-Related Contract Provisions**  
**2015–16**

<b>Section of Contract</b>	<b>Education-Related Contract Provision</b>	<b>Report Reference Page(s)</b>	<b>Contract Provision Met or Not Met</b>
	d. 10th-grade students at or above benchmark on the PLAN: At least 75.0% will maintain benchmark on the ACT.	d. N/A	d. N/A <sup>49</sup>
Section I, D	<p><u>Academic criterion #3:</u> Year-to-year achievement measure for 1st through 12th grades.</p> <p>a. Progress for elementary students below grade level or proficiency level was not available this year.</p> <p>b. 9th-grade students below benchmark on the EXPLORE: At least 60.0% of students below benchmark on any EXPLORE subtest or the composite score will reach benchmark or gain at least one point on the same subtest or composite score on the PLAN the following spring.</p> <p>c. 10th-grade students below benchmark on the Aspire: At least 60.0% of students below benchmark on any PLAN subtest or the composite score will reach benchmark or gain at least one point on the same subtest or composite score on the ACT.</p>	<p>a. N/A</p> <p>b. N/A</p> <p>c. N/A</p>	<p>a. N/A</p> <p>b. N/A<sup>50</sup></p> <p>c. N/A<sup>51</sup></p>
Section I, E	Parental involvement.	pp. 11–12	Met
Section I, F	Instructional staff hold a DPI license or permit to teach.	p. 9	Not met <sup>52</sup>
Section I, I	Pupil database information, including information on students with special education needs.	pp. 16–19	Met
Section I, K	Discipline procedures.	pp. 13–14	Met

<sup>49</sup> Progress from PLAN to ACT could not be measured this year.

<sup>50</sup> Due to the change from EXPLORE/PLAN to Aspire in 2014–15, progress from the EXPLORE to the PLAN could not be measured this year.

<sup>51</sup> Progress from PLAN to ACT could not be measured this year.

<sup>52</sup> Two teachers had applications pending with DPI, but at the end of the school year neither of these teachers had yet been granted a teaching license.

## **Appendix B**

### **Student Learning Memorandums**

**Student Learning Memorandum for  
Milwaukee Academy of Science Primary/Elementary Academies**

**To:** NCCD Children's Research Center and Charter School Review Committee  
**From:** Milwaukee Academy of Science Primary/Elementary Academies  
**Re:** Learning Memo for the 2015–16 Academic Year  
**Date:** September 8, 2015

Note: This memorandum of understanding includes the minimum measurable outcomes required by the City of Milwaukee Charter School Review Committee (CSRC) to monitor and report students' academic progress. These outcomes have been defined by the leadership and/or staff at the school in consultation with staff from the NCCD Children's Research Center (CRC) and CSRC. The school will record student data in PowerSchool and/or MS Excel spreadsheets and provide them to CRC, the educational monitoring agent contracted by CSRC. Additionally, paper test printouts or data directly from the test publisher or DPI will be provided to CRC for all standardized tests. All required elements related to the outcomes below are described in the "Learning Memo Data Requirements" section of this memo. CRC requests electronic submission of year-end data on the fifth day following the last day of student attendance for the academic year, or June 17, 2016.

**Enrollment**

Milwaukee Academy of Science (MAS) will record enrollment dates for every student. Upon admission, individual student information and actual enrollment dates will be added to the school's database. Required data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

**Termination/Withdrawal**

The exit date and reason for every student leaving the school will be determined and recorded in the school's database. A specific reason for each expulsion is required for each student. Required data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

**Attendance**

The school will maintain appropriate attendance records. A student is marked partial day (excused or unexcused) if he/she arrives after 11:00 a.m. or leaves before 3:20 p.m. MAS will achieve an attendance rate of at least 92%. Required data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

**Parent Participation**

Parents of at least 85% of students enrolled for the entire school year will participate in two of three scheduled parent-teacher conferences. If a parent does not attend a scheduled conference at the school, MAS will conduct the conference with the parent via telephone or home visit; all methods will count as participation. Required data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

## **Special Education Needs Students**

The school will maintain updated records on all students who received special education services at the school, including students who were evaluated but not eligible for services. Required data elements related to this outcome are described in the “Learning Memo Data Requirements” section.

## **Academic Achievement: Local Measures**

### Literacy and Math

At least 85% of K4 students who complete the fall and spring Phonological Awareness Literacy Screening (PALS)-PreK will be at or above the developmental range for at least five of seven tasks at the time of the spring assessment.

At least 80% of K4 students who complete the fall and spring math skill assessments will have acquired at least 80% of the math competencies designated as benchmarks for their grade level on the spring assessment. These assessments were designed by the MAS staff based on their SRA Real Math curriculum and are aligned to the Common Core State Standards.<sup>53</sup>

K5- through fifth-grade students will complete Measures of Academic Progress (MAP) reading and math tests in the fall and spring of the school year. At the time of the fall test, each student’s reading and math scores will be compared to national grade-level averages based on the 2011 Northwest Evaluation Association (NWEA) normative study. For the cohort of students who complete the fall and spring tests, CRC will report progress for students above the normative mean for their grade level and students at or below the normative mean for their current grade level. Based on fall test scores and the student’s current grade level, the student receives a target growth Rasch unit (RIT) score for the spring test.

- Progress for students above the normative mean for their current grade at the time of the fall test will be measured by examining the change in RIT scores from fall to spring. For K5 through second graders, an increase of six or more RIT points will indicate progress for the current school year; for third through fourth graders, an increase of four or more RIT points will indicate progress; and for fifth graders, an increase of two or more RIT points will indicate progress.
- For students at or below the normative grade-level average, progress will be determined by examining whether the student met the MAP growth target based on his/her fall test score and current grade level; students who met their growth target for the year will be considered to have made adequate progress for the school year.

At least 70% of all students who complete both the fall and spring assessments will show progress this year. Required data elements for all literacy and math measures are described in the “Learning Memo Data Requirements” section.

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<sup>53</sup> The National Council of Teachers of Mathematics (NCTM) describes the curriculum focal points that identify the most important math standards at a particular level. SRA Real Math was developed to build key math concepts in line with the NCTM focal points. For more information, visit <https://www.mheonline.com/program/view/1/16/248/0076053903/>

### Writing

By the end of the final marking period, students in third through fifth grades will have a writing sample assessed. Writing skills appropriate for each grade level will be assessed in the following six domains: purpose and focus, organization and coherence, development of content, sentence fluency, word choice, and grammar. Each domain will be assessed on the following scale: 1 = minimal control; 2 = basic control; 3 = adequate control; 4 = proficient control; and 5 = advanced control. Each grade cohort will be judged to have at least "adequate control," as indicated by a total score of 18. At least 75% of students enrolled for the entire year will achieve a total score of 18 or above. Required data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

### Individualized Education Program Goals

At least 80% of the special education students will meet one or more of the goals defined in their individualized education program (IEP). Required data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

### **Academic Achievement: Standardized Measures**

The following standardized test measures will assess academic achievement in reading and/or mathematics.

#### PALS for K4- Through Second-Grade Students<sup>54</sup>

The PALS will be administered to all K4- through second-grade students within the timeframe required by the Wisconsin Department of Public Instruction (DPI). Required data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

#### DPI-Required Standardized Assessment for Third- Through Fifth-Grade Students

A DPI-required standardized assessment will be administered on an annual basis within the timeframe specified by DPI. This standardized assessment will produce an English/language arts and/or reading score and a math score. Once an assessment has been identified for the 2015–16 school year, the data elements related to this outcome will be added to the "Learning Memo Data Requirements" section and sent to the school in an updated version of this learning memo.

#### DPI-Required Science and Social Studies Assessment(s) for Fourth-Grade Students

All fourth graders are required to complete science and social studies assessments in the timeframe(s) specified by DPI. At the time of this memo, DPI was in the process of selecting science and social studies assessments. Once a final decision has been made, a revised learning memo including those updates will be completed.

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<sup>54</sup> Students who meet the summed score benchmark have achieved a level of minimum competency and can be expected to show growth given regular classroom literacy instruction. It does not guarantee that the student is at grade level. Information from <http://www.palswisconsin.info>.

## **Year-to-Year Achievement<sup>55</sup>**

1. CRC will report results from the DPI-required standardized assessment. Data from 2015–16 will serve as baseline data for subsequent years. If possible, beginning in the 2016–17 school year, CRC will also report year-to-year progress for students who completed the assessment in consecutive school years at the same school. When year-to-year data are available, CSRC will set its expectations for student progress, and these expectations will be effective for all subsequent years.
2. Data from the 2015 spring PALS assessment will be used as baseline data. CSRC's expectation for students maintaining reading readiness is that at least 75% of students who were in first grade in the 2014–15 school year, who met the summed score benchmark in the spring of 2015, will remain at or above the second-grade summed score benchmark in the spring of 2016.

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<sup>55</sup> The CSRC will not have year-to-year achievement measurements for students in K4 and K5.

**Student Learning Memorandum for  
Milwaukee Academy of Science Junior Academy**

**To:** NCCD Children's Research Center and Charter School Review Committee  
**From:** Milwaukee Academy of Science Junior Academy  
**Re:** Learning Memo for the 2015–16 Academic Year  
**Date:** September 10, 2015

Note: This memorandum of understanding includes the *minimum* measurable outcomes required by the City of Milwaukee Charter School Review Committee (CSRC) to monitor and report students' academic progress. These outcomes have been defined by the leadership and/or staff at the school in consultation with staff from the NCCD Children's Research Center (CRC) and CSRC. The school will record student data in PowerSchool and/or MS Excel spreadsheets and provide data to CRC, the educational monitoring agent contracted by the CSRC. Additionally, paper test printouts or data directly from the test publisher or the Wisconsin Department of Public Instruction (DPI) will be provided to CRC for all standardized tests. All required elements related to the outcomes below are described in the "Learning Memo Data Requirements" section. CRC requests electronic submission of year-end data on the fifth day following the last day of student attendance for the academic year, or June 17, 2016.

**Enrollment**

Milwaukee Academy of Science (MAS) will record enrollment dates for all students. Upon each student's admission, individual student information and the actual enrollment date will be added to the school's database. Required data elements related to this outcome are described in the Data Requirements section of this memo.

**Termination/Withdrawal**

The exit date and reason for withdrawal will be determined for every student leaving the school and recorded in the school's database. Specific reasons for each expulsion are required for each student. Required data elements related to this outcome are described in the Data Requirements section of this memo.

**Attendance**

The school will maintain appropriate attendance records. Students who arrive at school prior to 10:00 a.m. will be marked present for the day. MAS will achieve an attendance rate of at least 93%. Required data elements related to this outcome are described in the Data Requirements section of this memo.

### **Parent Participation**

Parents of at least 90% of students enrolled for the entire school year will participate in two of three scheduled parent-teacher conferences. Participation will count if the parent meets with any teacher in person at the school, via phone, or at the student's home during each of the three conference periods. Required data elements related to this outcome are described in the Data Requirements section of this memo.

### **Special Education Needs Students**

The school will maintain updated records on all students who receive special education services at the school, including students who were evaluated but not eligible for services. Required data elements related to the special education outcome are described in the Data Requirements section of this memo.

### **Academic Achievement: Local Measures**

#### Literacy

Junior academy students will complete Measures of Academic Progress (MAP) reading tests in the fall and spring of the school year. At the time of the fall test, each student's reading score will be compared to national grade-level averages (i.e., normative means) based on the 2011 Northwest Evaluation Association (NWEA) normative study. For the cohort of students who complete the fall and spring tests, CRC will report progress for students above the normative mean for their grade level and students at or below the normative mean for their current grade level. Based on fall test scores and the student's current grade level, the student receives a target growth Rasch unit (RIT) score for the spring test.

- Progress for students above the normative mean for their current grade at the time of the fall test will be measured by examining the change in RIT scores from fall to spring; an increase of one RIT point will indicate progress for the current school year.
- For students at or below the normative grade-level average for their current grade, progress will be determined by examining whether students met the MAP growth target based on their fall test score and current grade level; students who met their growth target for the year will be considered to have made adequate progress for the school year.

At least 73% of all students who complete both the fall and spring assessments will show progress this year. Required data elements related to this outcome are described in the Data Requirements section of this memo.

#### Mathematics

Junior academy students will complete MAP math tests in the fall and spring of the school year. At the time of the fall test, each student's math score will be compared to national grade-level averages based on the 2011 NWEA normative study. For the cohort of students who complete the fall and spring tests, CRC will report progress for students above the normative mean for their grade level and students at or below the normative mean for their current grade level.

Based on fall test scores and the student's current grade level, the student receives a target growth RIT score for the spring test.

- Progress for students above the normative mean for their current grade at the time of the fall test will be measured by examining the change in RIT scores from fall to spring; an increase of one RIT point will indicate progress for the current school year.
- For students at or below the normative grade-level average for their current grade, progress will be determined by examining whether the student met the MAP growth target based on their fall test score and current grade level; students who met their growth target for the year will be considered to have made adequate progress for the school year.

At least 73% of all students who complete both the fall and spring assessments will show progress this year. Required data elements related to this outcome are described in the Data Requirements section of this memo.

#### Writing

Writing samples from students in sixth through eighth grades will be assessed by the end of the final grading period in the following six domains based on grade level or individualized education program (IEP) expectations: purpose and focus, organization and coherence, development of content, sentence fluency, word choice, and grammar. Each domain will be assessed on the following scale: 1 = minimal control; 2 = basic control; 3 = adequate control; 4 = proficient control; and 5 = advanced control. At least 73% of students enrolled for the entire school year will have at least "adequate control," as indicated by a total score of 18 or higher.

#### IEP Goals

At least 80% of the special education students will meet one or more of the goals defined in their IEPs. Required data elements related to this outcome are described in the Data Requirements section of this memo.

#### **Academic Achievement: Standardized Measures**

The following standardized test measures will assess academic achievement in reading and/or mathematics.

#### DPI-Required Standardized Assessment for Sixth- Through Eighth-Grade Students

A DPI-required standardized assessment will be administered on an annual basis within the timeframe specified by DPI. This standardized assessment will produce an English/language arts and/or reading score and a math score. Once an assessment has been identified for the 2015–16 school year, the data elements related to this outcome will be added to the Data Requirements section and sent to the school in an updated version of the learning memo.

**DPI-Required Science and Social Studies Assessment(s) for Eighth-Grade Students**

All eighth graders are required to complete science and social studies assessments in the timeframe(s) specified by DPI. At the time of this memo, DPI was in the process of selecting science and social studies assessments. Once a final decision is made, a revised learning memo including those updates will be completed.

**Year-to-Year Achievement**

CRC will report results from the DPI-required standardized assessment. Data from 2015–16 will serve as baseline data for subsequent years. If possible, beginning in the 2016–17 school year, CRC also will report year-to-year progress for students who complete the assessment in consecutive school years at the same school. When year-to-year data are available, CSRC will set its expectations for student progress; these expectations will be effective for all subsequent years.

**Student Learning Memorandum for  
Milwaukee Academy of Science High School**

**To:** NCCD Children's Research Center and Charter School Review Committee  
**From:** Milwaukee Academy of Science High School  
**Re:** Learning Memo for the 2015–16 Academic Year  
**Date:** August 27, 2015

Note: This memorandum of understanding includes the *minimum* measurable outcomes required by the City of Milwaukee Charter School Review Committee (CSRC) to monitor and report students' academic progress. These outcomes have been defined by the leadership and/or staff at the school in consultation with staff from the NCCD Children's Research Center (CRC) and CSRC. The school will record student data in PowerSchool and/or MS Excel spreadsheets and provide that data to CRC, the educational monitoring agent contracted by CSRC. Additionally, paper test printouts or data directly from the test publisher or Wisconsin Department of Public Instruction (DPI) will be provided to CRC for all standardized tests. All required elements related to the outcomes below are described in the "Learning Memo Data Requirements" section of this memo. CRC requests electronic submission of year-end data on the fifth day following the last day of student attendance for the academic year, or June 17, 2016.

**Enrollment**

Milwaukee Academy of Science (MAS) High School will record enrollment dates for every student. Upon admission, individual student information and actual enrollment date will be added to the school's database. Required data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

**Termination/Withdrawal**

The exit date and reason for every student leaving the school will be determined and recorded in the school's database. Specific reasons for each expulsion are required for each student. Required data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

**Attendance**

The school will maintain appropriate attendance records. High school students who miss any portion of the school day are considered truant.<sup>56</sup> MAS will achieve an attendance rate of at least 91%. Required data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

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<sup>56</sup> Excused and unexcused absences, as well as suspension data for high school students, are reported by class period; CRC will use these data to calculate the number of days each student missed due to excused absences, unexcused absences, or in- or out-of-school suspension. The number of days enrolled, the number of days attended, and overall absences should be reported as days.

### **Parent/Guardian Participation**

Parents of at least 85% of students enrolled for the entire school year will participate in two of the three scheduled parent-teacher conferences. Note that a parent conference with any teacher during each of the three conference periods will be counted as participation. Required data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

### **Special Education Needs Students**

The school will maintain updated records on all students who received special education services at the school, including students who were evaluated but not eligible for services. Required data elements related to the special education outcome are described in the "Learning Memo Data Requirements" section.

### **High School Graduation Plan**

All students in ninth through eleventh grades will develop a high school graduation plan by the end of the school year. All twelfth-grade students will complete their graduation plans by the end of the first semester. Each student will incorporate the following into his/her high school graduation plan.

- Information regarding the student's postsecondary plans.
- A schedule reflecting plans for completing four credits each in English and mathematics; five credits in science; three credits in social studies; and two credits each in foreign language, physical education/health, and other electives.<sup>57</sup>
- Evidence of parent/guardian/family involvement. Involvement means that the guidance counselor will review each student's graduation plan with his/her parent(s) by the end of the school year via either a face-to-face or phone conference. If a parent does not participate in one of these sessions, MAS will have a conference with the student and submit a written report to the parent via regular mail.

The guidance counselor/advisor will meet with each twelfth-grade student by the end of the first semester to discuss the student's graduation plan.

For ninth through twelfth grades, student schedules will be reviewed by the guidance counselor/advisor by the end of the school year to determine whether each student is on track toward earning credits and whether the student will need to enroll in summer school.

Required data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

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<sup>57</sup> Credit requirements were revised and will be applied to students in the class of 2017 or after; for those students, the schedule must reflect the number of credits required to graduate based on these revised graduation requirements.

## **High School Graduation Requirements<sup>58</sup>**

- All ninth graders who earn at least 6.0 credits will be promoted to tenth grade.<sup>59</sup>
- All tenth graders who earn at least 12.0 credits will be promoted to eleventh grade.
- All eleventh graders who earn at least 18.0 credits will be promoted to twelfth grade.
- All twelfth graders who earn at least 22.0 credits, including the required courses, will graduate.

Required data elements related to this outcome are described in the “Learning Memo Data Requirements” section.

## **Academic Achievement: Local Measures**

### Literacy

Reading progress for ninth through twelfth graders will be demonstrated by changes in their Lexile level scores as measured by the Scholastic Reading Inventory (SRI) administered by the end of September and again at the end of the school year. At least 60% of students will increase their Lexile level scores by at least 13 points from fall to spring.<sup>60</sup> Any student who enrolls after the beginning of the school year will be tested within 60 calendar days of enrollment using the Brigance. Required data elements related to this outcome are described in the “Learning Memo Data Requirements” section.

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<sup>58</sup> This item depends on the school’s high school graduation requirements and the timing of the student’s coursework. Outcomes reflect what would be needed at each grade level to meet graduation requirements by the end of the fourth year. Some special education students’ individualized education programs indicate that they will need more than four years of study to graduate. However, these students are promoted for this school year from ninth to tenth grade with 4.5 credits, tenth to eleventh grade with 9.0 credits, and eleventh to twelfth grade with 13.5 credits. All special education students are required to accumulate 22.0 credits to graduate from MAS.

<sup>59</sup> MAS has adopted new graduation requirements effective for the class of 2017. The following credits are necessary for promotion to the next grade level: ninth to tenth, 6.0; tenth to eleventh, 12.0; eleventh to twelfth, 18.0; and to graduate, 24.0.

<sup>60</sup> These Lexile score increases would indicate that students in these respective grade levels had made one year of progress in the acquisition of comprehension and vocabulary skills.

### Mathematics

Math progress for ninth through twelfth graders enrolled in a math course during the school year will be measured by the comprehensive tests for the math course in which they are enrolled.<sup>61</sup> The end-of-year test results will be reported to CRC. At least 65% of students enrolled in the same math class for the entire year will attain scores of at least 70% on their comprehensive course exams at the end of the school year.<sup>62</sup> In addition, students who enroll after the start of the school year will be given the Wide Range Achievement Test (WRAT) within 60 days of their enrollment to assess their basic math competency levels. Required data elements related to this outcome are described in the “Learning Memo Data Requirements” section.

### Writing

By the end of the final marking period, students in ninth through twelfth grades will have had writing samples assessed. Student writing skills will be assessed in the following six domains based on grade level or individualized education program (IEP) expectations: purpose and focus, organization and coherence, development of content, sentence fluency, word choice, and grammar. Each domain will be assessed on the following scale: 1 = minimal control; 2 = basic control; 3 = adequate control; 4 = proficient control; and 5 = advanced control. At least 65% of students in each grade enrolled for the entire year will be judged to have at least “adequate control,” as indicated by a total score of 18 or higher. Required data elements related to this outcome are described in the “Learning Memo Data Requirements” section.

### IEP Goals

At least 80% of the special education students will meet one or more of the goals defined in their IEPs. Required data elements related to this outcome are described in the “Learning Memo Data Requirements” section.

## **Academic Achievement: Standardized Measures**

### Ninth- and Tenth-Grade Students

All ninth- and tenth-grade students are required to take all subtests of the ACT Aspire (the pre-ACT test that will identify student readiness for the ACT and college courses)<sup>63,64</sup> in the time frame required by DPI. Specific data elements related to this outcome are described in the “Learning Memo Data Requirements” section.

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<sup>61</sup> The math courses offered to high school students include algebra, geometry, advanced algebra, advanced algebra/trigonometry, pre-calculus, and statistics. Not all eleventh- and twelfth-grade students are enrolled in a math class. Some students have already completed the requirement to earn four credits in math prior to graduation; students not enrolled in a math class during the school year will not be tested.

<sup>62</sup> The school will provide scores for students enrolled in the same math course for the entire school year.

<sup>63</sup> Subtests include English, mathematics, reading, science, and writing.

<sup>64</sup> The Educational Planning and Assessment System developed by ACT provides a longitudinal, standardized approach to educational and career planning, assessment, instructional support, and evaluation. The series includes the ACT Aspire Early

### DPI-Required Science and Social Studies Assessment(s) for Tenth-Grade Students

All tenth graders are required to complete science and social studies assessments in the time frame(s) specified by DPI. At the time of this memo, DPI was in the process of selecting science and social studies assessments. Once a final decision has been made, a revised learning memo including those updates will be completed.

### Eleventh-Grade Students

All eleventh-grade students are required to take all subtests of the ACT Plus Writing and the ACT WorkKeys in the time frame required by DPI. Specific data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

### Twelfth-Grade Students

MAS will require all seniors to take the ACT or ACT Plus Writing in the fall of 2015. The ACT for twelfth graders is not required by DPI but is a CSRC requirement. Specific data elements related to this outcome are described in the "Learning Memo Data Requirements" section.

### **Year-to-Year Progress**

Required data elements related to year-to-year outcomes are described in the "Learning Memo Data Requirements" section.

### ACT Aspire for Ninth- to Tenth-Grade Students

CRC will report year-to-year progress from the ninth- to tenth-grade Aspire for students who complete the test two consecutive years. Progress will be reported for students at or above benchmark on any of the subtests or the composite score and for students below benchmark. Results from 2015–16 will be used as baseline data for subsequent years.

### ACT Aspire to ACT Plus Writing for Tenth to Eleventh Graders

CRC will examine year-to-year progress for students who complete the Aspire as tenth graders and the ACT Plus Writing the subsequent year as eleventh graders. Benchmark status will be reported for students who are at or above the benchmark for any subtest or the composite score on Aspire. If possible, CRC will also report progress for students who were below benchmark in tenth grade.<sup>65</sup>

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High School, ACT Plus Writing, and ACT WorkKeys tests. Score ranges from all three tests are linked to *Standards for Transition* statements that describe what students have learned and what they are ready to learn next. The *Standards for Transition*, in turn, are linked to *Pathways* statements that suggest strategies to enhance students' classroom learning. *Standards for Transition* and *Pathways* can be used by teachers to evaluate instruction and student progress and advise students on courses of study.

<sup>65</sup> The former year-to-year measure for students below benchmark requires calculating a difference between the tenth-grade scale score and the eleventh grade scale score for each subtest and the composite score. Because the Aspire scale scores are three digits and the ACT scale scores are two digits, it is no longer possible to calculate that difference. CRC is examining whether there are other valid ways to examine progress for students who are below benchmark.

## **Appendix C**

### **Trend Information**

**Table C1****Milwaukee Academy of Science  
Enrollment**

<b>Year</b>	<b>Number Enrolled at Start of School Year</b>	<b>Number Enrolled During Year</b>	<b>Number Withdrew</b>	<b>Number at End of School Year</b>	<b>Number/ Percentage Enrolled for Entire School Year</b>
2011–12	1,039	40	128	951	914 (88.0%)
2012–13	965	25	140	850	829 (85.9%)
2013–14	958	42	111	889	849 (88.6%)
2014–15	1,025	21	179	872	851 (83.0%)
2015–16	1,039	35	125	949	920 (88.5%)

**Table C2****Milwaukee Academy of Science  
Student Return Rates**

<b>Year</b>	<b>Number Enrolled at End of Previous Year*</b>	<b>Number Enrolled at Start of This School Year</b>	<b>Student Return Rate</b>
2011–12	921	761	82.6%
2012–13	869	688	79.2%
2013–14	734	581	79.2%
2014–15	798	652	81.7%
2015–16	776	661	85.2%

\*Includes only those students enrolled at the end of the previous year who were eligible for enrollment again the following year; beginning in 2012–13, excludes students in eighth and twelfth grades during previous school year.

Figure C1

## Milwaukee Academy of Science Student Attendance Rates

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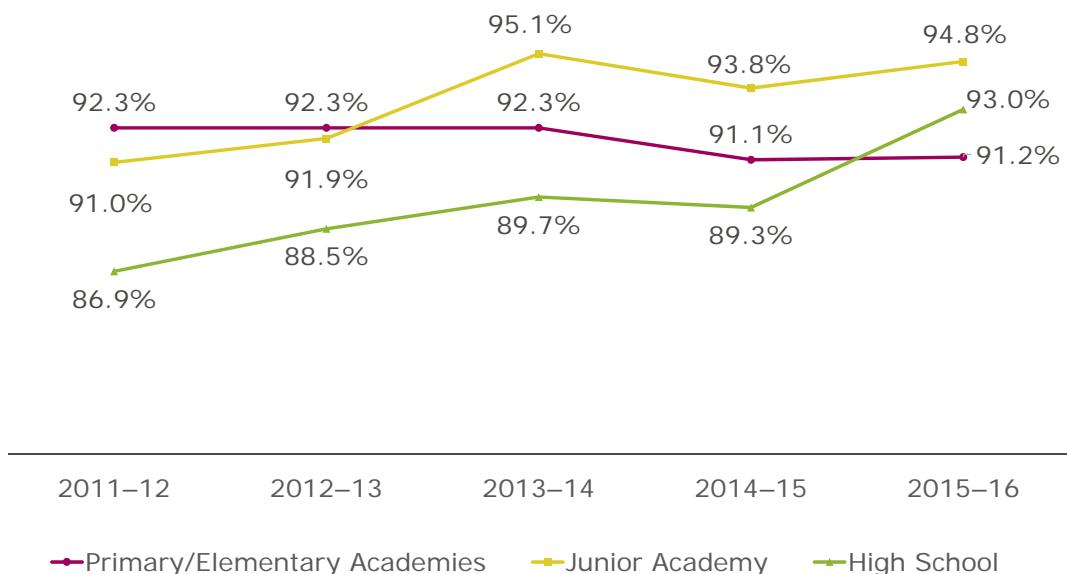
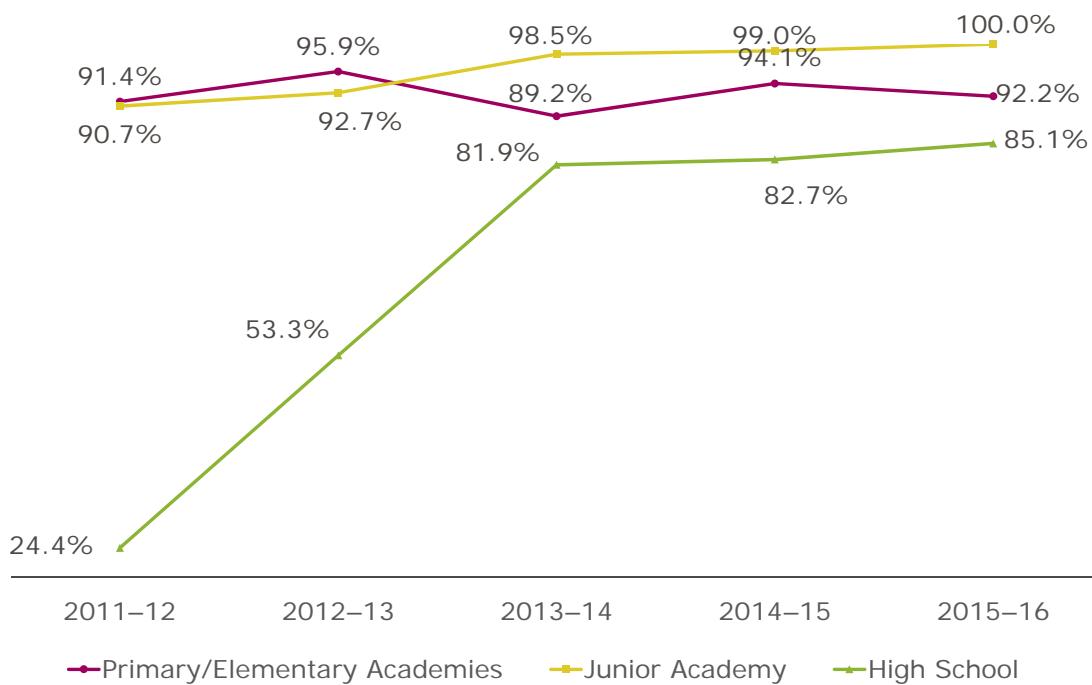


Figure C2

## Milwaukee Academy of Science Parent-Teacher Conference Participation



**Table C3****Milwaukee Academy of Science  
Teacher Retention**

<b>Year</b>	<b>Number at Beginning of School Year</b>	<b>Number Who Started After School Year Began</b>	<b>Number Who Terminated Employment During the Year</b>	<b>Number at End of School Year</b>	<b>Teacher Retention Rate: Percentage Employed at School for Entire School Year</b>
2011–12	80	4	4	80	95.0%
2012–13	72	4	3	73	95.8%
2013–14	73	5	1	77	98.6%
2014–15	73	7	7	73	90.4%
2015–16	66	2	2	66	97.0%

**Table C4****Milwaukee Academy of Science  
Teacher Return<sup>66</sup>**

<b>Year</b>	<b>Number at End of Prior School Year</b>	<b>Number Who Returned at Beginning of Current School Year</b>	<b>Teacher Return Rate</b>
2011–12	63	49	77.8%
2012–13	72	59	81.9%
2013–14	61	53	86.9%
2014–15	69	50 <sup>67</sup>	75.4%
2015–16	68	55 <sup>68</sup>	80.9%

<sup>66</sup> This rate was calculated excluding teachers who were at MAS at the end of the 2014–15 school year but who were not offered contracts for the 2015–16 school year, due either to unacceptable performance or the elimination of their instructional position; it also excludes teachers who moved out of the city for family reasons.

<sup>67</sup> Two additional teachers from the 2013–14 school year returned to MAS in the 2014–15 school year, but not as teachers. They were included when calculating the return rate for the 2014–15 school year.

<sup>68</sup> Of the 68 teachers eligible to return, 55 (80.9%) returned to MAS, but one returned as a teacher's assistant, rather than as a teacher.

**Table C5****Milwaukee Academy of Science  
CSRC Scorecard Score**

<b>School Year</b>	<b>Grades K4–8</b>	<b>High School</b>	<b>Combined Average*</b>
2011–12	73.8%	69.4%	72.9%
2012–13	73.2%	77.1%	74.0%
2013–14	72.2%	78.1%	73.3%
2014–15	79.4%	79.6%	79.4%
2015–16	81.2%	82.7%	81.4%

\*Based on a weighted average; weight is based on the number of students at each grade level who were enrolled at the end of the school year. The weighted average was a new measure introduced in 2012–13 and calculated retroactively for the 2011–12 school year.

## **Appendix D**

### **CSRC 2015–16 School Scorecards**

# City of Milwaukee Charter School Review Committee

## School Scorecard

r: 4/11

### **K5–8TH GRADES**

#### **STUDENT READING READINESS: GRADES 1–2**

- PALS—% 1st graders at or above spring summed score benchmark this year (5.0)
- PALS—% 2nd graders who maintained spring summed score benchmark two consecutive years (5.0)

**10%**

#### **STUDENT ACADEMIC PROGRESS: GRADES 3–8**

- WKCE reading—% maintained proficient and advanced (7.5)
- WKCE math—% maintained proficient and advanced (7.5)
- WKCE reading—% below proficient who progressed (10.0)
- WKCE math—% below proficient who progressed (10.0)

**35%**

#### **LOCAL MEASURES**

- % met reading (3.75)
- % met math (3.75)
- % met writing (3.75)
- % met special education (3.75)

**15%**

#### **STUDENT ACHIEVEMENT: GRADES 3–8**

- WKCE reading—% proficient or Advanced (7.5)
- WKCE math—% proficient or advanced (7.5)

**15%**

#### **ENGAGEMENT**

- Student attendance (5.0)
- Student reenrollment (5.0)
- Student retention (5.0)
- Teacher retention (5.0)
- Teacher return\* (5.0)

**25%**

### **HIGH SCHOOL**

#### **STUDENT ACADEMIC PROGRESS: GRADES 9, 10, and 12**

- EXPLORE to PLAN—Composite score at or above benchmark on EXPLORE and at or above benchmark on PLAN (5.0)
- EXPLORE to PLAN—Composite score below benchmark on EXPLORE but increased 1 or more on PLAN (10.0)
- Adequate credits to move from 9th to 10th grade (5.0)
- Adequate credits to move from 10th to 11th grade (5.0)
- DPI graduation rate (5.0)

**30%**

#### **POSTSECONDARY READINESS: GRADES 11 and 12**

- Postsecondary acceptance for graduates (college, university, technical school, military) (10.0)
- % of 11th/12th graders tested (2.5)
- % of graduates with ACT composite score of 21.25 or more (2.5)

**15%**

#### **LOCAL MEASURES**

- % met reading (3.75)
- % met math (3.75)
- % met writing (3.75)
- % met special education (3.75)

**15%**

#### **STUDENT ACHIEVEMENT: GRADE 10**

- WKCE reading—% proficient and advanced (7.5)
- WKCE math—% proficient and advanced (7.5)

**15%**

#### **ENGAGEMENT**

- Student attendance (5.0)
- Student reenrollment (5.0)
- Student retention (5.0)
- Teacher retention (5.0)
- Teacher return\* (5.0)

**25%**

\*Teachers not offered continuing contracts are excluded when calculating this rate.

Note: If a school has fewer than 10 students in any cell on this scorecard, CRC does not report these data. This practice was adopted to protect student identity. Therefore, these cells will be reported as not available (N/A) on the scorecard. The total score will be calculated to reflect each school's denominator.

Beginning with the 2014–15 elementary scorecard, the PALS replaced the SDRT as the standardized measure for students in the first and second grades. In 2014–15, DPI discontinued use of the WKCE; until a revised scorecard is adopted, measures related to the WKCE will not be scored.

<b>Table D1</b>					
<b>Milwaukee Academy of Science Primary/Elementary and Junior Academies (K4–8th Grades) Charter School Review Committee Scorecard 2015–16 School Year</b>					
<b>Area</b>	<b>Measure</b>	<b>Max. Points</b>	<b>% Total Score</b>	<b>Performance</b>	<b>Points Earned</b>
<b>Student Reading Readiness 1st – 2nd Grades</b>	% 1st graders at or above spring summed score benchmark this year	5.0	<b>10.0%</b>	69.0%	3.5
	% 2nd graders at or above 1st grade summed score benchmark in spring 2015 who maintained spring summed score benchmark this year	5.0		62.5%	3.1
<b>Student Academic Progress 3rd – 8th Grades</b>	WKCE reading: % maintained proficient and advanced	7.5	<b>35.0%</b>	N/A	N/A
	WKCE math: % maintained proficient and advanced	7.5		N/A	N/A
	WKCE reading: % below proficient who progressed	10.0		N/A	N/A
	WKCE math: % below proficient who progressed	10.0		N/A	N/A
<b>Local Measures<sup>69</sup></b>	% met reading	3.75	<b>15.0%</b>	72.5%	2.7
	% met math	3.75		72.6%	2.7
	% met writing	3.75		77.4%	2.9
	% met special education	3.75		93.1%	3.5
<b>Student Achievement 3rd – 8th Grades</b>	WKCE reading: % proficient or advanced	7.5	<b>15.0%</b>	N/A	N/A
	WKCE math: % proficient or advanced	7.5		N/A	N/A
<b>Engagement*</b>	Student attendance	5.0	<b>25.0%</b>	92.1%	4.6
	Student reenrollment <sup>70</sup>	5.0		86.2%	4.3
	Student retention rate	5.0		88.6%	4.4
	Teacher retention rate	5.0		97.0%	4.9
	Teacher return rate	5.0		80.9%	4.0
<b>TOTAL</b>		<b>50<sup>71</sup></b>			<b>40.6</b>
<b>K5–8TH GRADE SCORECARD PERCENTAGE</b>					<b>81.2%</b>
<b>HIGH SCHOOL SCORECARD PERCENTAGE</b>					<b>82.7%</b>

\*Teacher retention and return rates reflect all eligible instructional staff (classroom teachers plus other staff).

<sup>69</sup> When there were multiple measures per subject, the percentage that met all four local measures was derived by combining the performances of students at different grade levels.

<sup>70</sup> A student was considered to have re-enrolled if he/she was enrolled in K4 through seventh grade on the last day of the 2014–15 school year and was also enrolled on the third Friday of September 2015.

<sup>71</sup> The WKCE reading and math tests were discontinued beginning in the 2014–15 school year. Therefore, current and year-to-year results are not available. The maximum points possible for the WKCE scorecard measures were subtracted from the total possible points. The scorecard percentages were calculated by dividing the number of points earned by the modified denominator.

Table D2

**Milwaukee Academy of Science High School (9th – 12th Grades)**  
**Charter School Review Committee Scorecard**  
**2015–16 School Year**

Area	Measure	Max. Points	% Total Score	Performance	Points Earned
<b>Student Academic Progress</b>  <b>9th – 10th Grade</b> <b>10th – 11th Grade</b> <b>12th Grade</b>	<u>EXPLORE to PLAN</u> : Composite score at or above benchmark on EXPLORE and at or above benchmark on PLAN	5.0	<b>30.0%</b>	N/A <sup>72</sup>	N/A
	<u>EXPLORE to PLAN</u> : Composite score below benchmark on EXPLORE but increased 1 or more on PLAN	10.0		N/A	N/A
	Adequate credits to move from 9th to 10th grade	5.0		75.4%	3.8
	Adequate credits to move from 10th to 11th grade	5.0		86.8%	4.3
	Graduation rate (DPI) <sup>73</sup>	5.0		82.4%	4.1
<b>Postsecondary Readiness</b>  <b>11th and 12th Grades</b>	Postsecondary acceptance for graduates (college, university, technical school, military)	10.0	<b>15.0%</b>	100.0%	10.0
	% of 11th/12th graders tested	2.5		100.0%	2.5
	% of graduates with ACT composite score of 21.25 or more	2.5		30.4%	0.8
	% met reading	3.75		60.4%	2.3
<b>Local Measures<sup>74</sup></b>	% met math	3.75	<b>15.0%</b>	49.1%	1.8
	% met writing	3.75		73.5%	2.8
	% met special education	3.75		93.8%	3.5
	WKCE reading: % proficient and advanced	7.5		N/A	N/A
<b>Student Academic Achievement 10th Grade<sup>75</sup></b>	WKCE math: % proficient and advanced	7.5	<b>15.0%</b>	N/A	N/A
	Student attendance	5.0		93.0%	4.7
<b>Engagement*</b>	Student reenrollment	5.0	<b>25.0%</b>	80.3%	4.0
	Student retention rate	5.0		88.4%	4.4
	Teacher retention rate	5.0		97.0%	4.9
	Teacher return rate	5.0		80.9%	4.0
<b>TOTAL</b>		<b>70<sup>76</sup></b>			<b>57.9</b>
<b>HIGH SCHOOL SCORECARD PERCENTAGE</b>					<b>82.7%</b>

\*Teacher retention and return rates reflect all eligible instructional staff (classroom teachers plus other staff).

<sup>72</sup> Due to the change from the ACT EXPLORE/PLAN series in 2013–14 to the Aspire in 2014–15, year-to-year progress from ninth to tenth grade could not be calculated this year.

<sup>73</sup> Based on the 2014–15 DPI four-year rate reported on the DPI website: <https://apps2.dpi.wi.gov/sdpr/district-report.action>. MAS graduated 100.0% of the twelfth graders who were eligible to graduate in the 2015–16 school year.

<sup>74</sup> When there were multiple measures per subject for the reading and math local measures, the percentage that met the measure was derived by combining the performance of students in different grade levels.

<sup>75</sup> WKCE reading and math assessments were discontinued beginning in the 2014–15 school year. Therefore, results are not available.

<sup>76</sup> Points for measures that were not available this year were subtracted from the total possible points. The scorecard percentage was calculated by dividing the number of points earned by the modified denominator.

## **Appendix E**

### **Teacher Interview Results**

In the spring of 2016, CRC interviewed 26 teachers regarding their reasons for teaching at MAS and solicited feedback on their overall satisfaction with the school. Staff who participated in interviews included a variety of classroom teachers from most of grades K4 through twelfth, as well as a reading interventionist and several special education teachers.

The teachers interviewed had been teaching for an average of 5.9 years. The length of time they had been teaching at MAS ranged from one year to three years.

Four teachers rated the school's overall progress in contributing to students' academic progress as excellent, 16 teachers rated the school's progress as good, and six teachers rated the school's progress as fair.

Most (96.2%) teachers agreed or strongly agreed that the school has clear teacher performance assessment processes, but only about three quarters (73.1%) were satisfied with the performance assessment criteria (Table E1).

<b>Table E1</b>					
<b>Milwaukee Academy of Science Teacher Performance Assessment 2015-16 (N = 26)</b>					
<b>Question</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
The school has a clear teacher performance assessment process	8	17	0	1	0
I am satisfied with my school's teacher performance assessment criteria	5	14	7	0	0
Student academic performance is an important part of teacher assessment	10	11	2	3	0

Teachers seem to have a favorable view of the school's climate. Nearly all (96.2%) staff said that staff typically work well with one another (Table E2). Similarly, 92.3% of teachers said that staff encourage all families to become involved in school activities. Most (88.5%) staff said that adults who work in the school respect students and their different points of view.

<b>Table E2</b> <b>Milwaukee Academy of Science</b> <b>School Climate</b> <b>2015–16</b> <b>(N = 26)</b>					
<b>Question</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
Adults who work in this school respect students and their different points of view	6	17	3	0	0
Staff at this school typically work well with one another	18	7	0	1	0
Staff at this school encourage all families to become involved in school activities	4	20	2	0	0

When asked to rate the importance of various reasons for continuing to teach at the school, nearly all teachers rated educational methodology, general atmosphere, their colleagues, and administrative leadership as somewhat important or very important for continuing to teach at this school (Table E3).

<b>Table E3</b> <b>Reasons for Continuing to Teach at Milwaukee Academy of Science</b> <b>2015–16</b> <b>(N = 26)</b>					
<b>Reason</b>	<b>Importance</b>				
	<b>Very Important</b>	<b>Somewhat Important</b>	<b>Somewhat Unimportant</b>	<b>Not at All Important</b>	<b>No Response</b>
Financial considerations	8	13	2	2	1
Educational methodology/curriculum approach	15	10	1	0	0
Age/grade level of students	13	11	2	0	0
Discipline practices/procedures	12	9	5	0	0
General atmosphere	21	4	1	0	0
Class size	9	11	4	2	0
Administrative leadership	18	8	0	0	0
Colleagues	19	7	0	0	0
Students	16	7	1	2	0

CRC asked teachers to rate the school's performance related to class size, materials and equipment, and student assessment plan, as well as shared leadership, professional support and development, and the school's progress toward becoming an excellent school. Teachers most often rated teacher collaboration to plan learning experiences as excellent or good. Parent/teacher relationships, performance as a teacher, instructional support, and students' academic progress were most often rated as good by teachers (Table E4).

Area	Rating				
	Excellent	Good	Fair	Poor	No Response
	(N = 26)				
Class size/student-teacher ratio	7	14	4	1	0
Program of instruction	1	16	8	1	0
Shared leadership, decision making, and accountability	2	16	7	1	0
Professional support	3	11	11	1	0
Progress toward becoming a high-performing school	3	12	11	0	0
Your students' academic progress	1	17	8	0	0
Adherence to discipline policy	0	5	14	7	0
Instructional support	2	18	6	0	0
Parent/teacher relationships	1	20	4	0	1
Teacher collaboration to plan learning experiences	8	16	1	1	0
Parent involvement	0	9	12	5	0
Your performance as a teacher	5	18	2	0	1
Administrative staff's performance	3	16	6	0	1

When asked to name two things they liked most about the school, teachers noted:

- Staff and collaborative relationships between teachers; and
- Administrative support;
- The school climate; and
- The students.

Things teachers liked least about the school include:

- Inconsistent disciplinary consequences;
- Lack of ability to retain veteran teachers;
- Noise levels on the second floor can interfere with movement;
- Lack of strong and updated curriculum; and

- Too much work—too much administrative work that becomes overwhelming.

Teachers identified the following barriers that could affect their decision to remain at the school:

- Concerns about changes in administration;
- Lack of opportunity for advancement; and
- Pay levels.

When asked for suggestions to improve the school, teachers said to:

- Add more support staff in the classroom;
- Create consistent discipline policies throughout the school; and
- Develop a clearer and challenging curriculum for teachers to use with students.

## **Appendix F**

### **Parent Survey Results**

Parent opinions are qualitative in nature and provide a valuable measurement of school performance. To determine parents' satisfaction with the school, parental involvement with the school, and an overall evaluation of the school, each school distributed paper surveys during spring parent-teacher conferences as well as offered the ability to complete the survey online. CRC made at least two follow-up phone calls to parents who had not completed a survey. If these parents were available and willing, CRC completed the survey over the telephone. Ultimately, 243 surveys, representing 38.1% of 638 MAS families, were completed and submitted to CRC.

Most parents either agreed or strongly agreed that they are comfortable talking with staff (90.9%), believe their child is learning what is needed to succeed in life (90.9%), are kept informed about their child's academic performance (90.5%), feel welcomed at MAS (86.4%), and clearly understand the school's academic expectations (93.0%) (Table F1).

**Table F1**

**Milwaukee Academy of Science  
Parent Satisfaction With School  
2015-16  
(N = 243)**

Factor	Response											
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		No Response	
	n	%	n	%	n	%	n	%	n	%	n	%
I am comfortable talking with the staff	147	60.5%	74	30.5%	10	4.1%	3	1.2%	4	1.6%	5	2.1%
The staff keep me informed about my child's academic performance	141	58.0%	79	32.5%	15	6.2%	3	1.2%	4	1.6%	1	0.4%
I am comfortable with how the staff handles discipline	101	41.6%	86	35.4%	28	11.5%	16	6.6%	12	4.9%	0	0.0%
I am satisfied with the overall performance of the staff	102	42.0%	97	39.9%	23	9.5%	13	5.3%	6	2.5%	2	0.8%
The staff recognize my child's strengths and weaknesses	132	54.3%	76	31.3%	15	6.2%	7	2.9%	5	2.1%	8	3.3%
I feel welcome at my child's school	134	55.1%	76	31.3%	23	9.5%	3	1.2%	0	0.0%	7	2.9%
The staff respond to my worries and concerns	117	48.1%	80	32.9%	27	11.1%	7	2.9%	5	2.1%	7	2.9%

**Table F1**

**Milwaukee Academy of Science  
Parent Satisfaction With School  
2015–16  
(N = 243)**

Factor	Response											
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		No Response	
	n	%	n	%	n	%	n	%	n	%	n	%
My child and I clearly understand the school's academic expectations	143	58.8%	83	34.2%	6	2.5%	2	0.8%	1	0.4%	8	3.3%
My child is learning what is needed to succeed in later grades or after high school graduation	117	48.1%	104	42.8%	17	7.0%	1	0.4%	2	0.8%	2	0.8%
My child is safe in school	113	46.5%	100	41.2%	17	7.0%	4	1.6%	4	1.6%	5	2.1%
People in this school treat each other with respect	84	34.6%	89	36.6%	46	18.9%	10	4.1%	8	3.3%	6	2.5%
The school offers a variety of courses and afterschool activities to keep my child interested	72	29.6%	80	32.9%	44	18.1%	25	10.3%	16	6.6%	6	2.5%

The second measure examined the extent to which parents engaged in educational activities while at home. During a typical week, most or many of the parents of younger children (K4 through fifth grades) work on homework with their children (97.0%), work on arithmetic or math (93.5%), read to or with their children (97.0%), encourage the use of phones, tablets, or computers for learning (88.2%), and/or participated in activities such as sports, library visits, or museum visits with their children (65.1%).

<b>Table F2</b>								
<b>Milwaukee Academy of Science Parent Participation in Activities K4 – 5th Grade 2015–16 (N = 169)</b>								
<b>Activity</b>	<b>Response</b>							
	<b>Never</b>		<b>Monthly</b>		<b>Weekly</b>		<b>No Response</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
Read with or to your child(ren)	1	0.6%	3	1.8%	164	97.0%	1	0.6%
Encourage the use of phones, tablets, or computers for learning	5	3.0%	14	8.3%	149	88.2%	1	0.6%
Work on arithmetic or math	4	2.4%	6	3.6%	158	93.5%	1	0.6%
Work on homework	1	0.6%	2	1.2%	164	97.0%	2	1.2%
Participate together in activities outside of school	5	3.0%	54	32.0%	110	65.1%	0	0.0%

Parents of older children (grades six through eight) engaged in similar activities during the week. For example, 85.3% of 75 parents monitored homework completion during the week; 78.7% discussed their children's progress towards graduation; 86.7% encouraged the use of phones, tablets, or computers to do research; 78.7% discussed plans for education after graduation; and 56.0% participated in activities outside of school with them at least once a week.

<b>Table F3</b> <b>Milwaukee Academy of Science</b> <b>Parent Participation in Activities</b> <b>6th – 8th Grade</b> <b>2015-16</b> <b>(N = 75)</b>								
<b>Activity</b>	<b>Response</b>							
	<b>Never</b>		<b>Monthly</b>		<b>Weekly</b>		<b>No Response</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
Monitor homework completion	0	0.0%	9	12.0%	64	85.3%	2	2.7%
Encourage the use of phones, tablets, or computers to do research	3	4.0%	4	5.3%	65	86.7%	3	4.0%
Participate together in activities outside of school	6	8.0%	25	33.3%	42	56.0%	2	2.7%
Discuss with your child his/her progress toward graduation	3	4.0%	11	14.7%	59	78.7%	2	2.7%
Discuss plans for education after graduation	4	5.3%	13	17.3%	57	76.0%	1	1.3%

Parents of high school students were also asked to rate the school on two measures related to progress toward graduation and school assistance in helping the family understand and plan for life after high school. Most (75.9%) parents rated their child's progress toward graduation as excellent or good. Nearly three quarters (74.1%) of parents rated the school's assistance in helping them plan for education after high school as excellent or good (Table F4).

Item	Rating									
	Excellent		Good		Fair		Poor		No Response	
	n	%	n	%	n	%	n	%	n	%
Your child's progress toward graduation	27	46.6%	17	29.3%	10	17.2%	3	5.2%	1	1.7%
School assistance in helping me and my child understand and plan for his/her education after high school	21	36.2%	22	37.9%	10	17.2%	5	8.6%	0	0.0%

Parental satisfaction was also evident in the following results.

- Most (92.2%) parents would recommend this school to other parents.
- Most (80.7%) parents will send their child to the school next year. Fifteen (6.2%) parents said they will not send their child to the school next year, and 26 (10.7%) were not sure. The remaining 2.5% did not respond to the question.
- When asked to rate the school's overall contribution to their child's learning, a majority (86.8%) of parents rated the school's overall contribution to their child's learning as excellent or good.

When asked what they liked most about the school, responses included:

- Challenging academics;
- Parent-teacher communication;
- Hands-on staff and one-on-one attention; and
- Recognition of students' strengths and weaknesses.

When asked what they like least about the school, responses included:

- Lack of extracurricular activities;
- Strict uniform policy;
- Bus company; and
- Discipline policy.

## **Appendix G**

### **Student Survey Results**

At the end of the school year, 171 students in the junior academy and high school completed an online survey about their school. Survey responses were generally positive (Table G).

- Most (90.1%) students said they had improved their reading ability, and 82.5% said that their math abilities had also improved.
- Most (81.9%) students said the teachers help them succeed in school.
- Most (79.5%) students indicated that they used computers at school.
- Most (74.9%) students said teachers talk with them about high school plans.

Some areas deserving attention from the school leadership and its staff include:

- Only 24.0% of the junior academy students agreed or strongly agreed that students at MAS respect each other and their different points of view.
- Just over half of students at all grade levels said that school rules and discipline practices were enforced fairly (54.4%); that teachers at MAS respected students' different points of view (57.3%); and that they liked being in school (57.9%).

Question	Answer					
	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	No Response
<b>All Students (N = 171)</b>						
I like my school.	34	77	41	9	10	0
My reading/writing skills have improved.	80	74	12	1	4	0
My math skills have improved.	75	66	17	7	5	1
I regularly use computers/tablets in my school work.	36	100	18	12	5	0
The school rules are fair/discipline enforced fairly.	25	68	45	14	14	5
I like being in school.	32	67	40	13	15	4
I feel safe in school.	34	76	39	10	9	3
The grades I get on classwork, homework, and report cards are fair.	21	96	37	10	6	1
My school has enough classes/afterschool activities.	46	70	32	14	9	0

**Table G**

**Milwaukee Academy of Science  
Student Survey  
2015-16**

<b>Question</b>	<b>Answer</b>					
	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neither Agree nor Disagree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>No Response</b>
Teachers at my school respect students.	35	81	38	10	6	1
Teachers at my school respect students' different points of view.	23	75	50	16	6	1
<b>Junior Academy Student Questions (n=125)</b>						
The teachers at my school help me to succeed in school.	57	45	14	2	4	3
My teachers talk with me about high school plans.	46	49	17	9	3	1
Students at my school respect each other and their different points of view.	4	26	41	25	27	2
<b>High School Student Questions (n=46)</b>						
Adults at my school help me understand what I need to do in order to succeed.	14	24	7	1	0	0
Adults at my school help me develop goals that challenge me academically.	9	31	5	0	1	0
My school has helped me develop a high school graduation plan.	8	25	11	1	1	0
My teachers expect that I will continue my education after high school graduation.	24	21	1	0	0	0
I plan to enroll in a postsecondary program after high school.	22	12	11	1	0	0

When asked what they liked best about the school, students said:

- The teachers;
- Learning new things; and
- Being challenged academically helps them focus on the future.

When asked what they liked least, students said:

- The uniforms;
- Some students are disrespectful to other students and teachers; and
- Lunch, including taste and lack of variety.

## **Appendix H**

### **Board Interview Results**

Board member opinions are qualitative in nature and provide valuable, although subjective, insight regarding school performance and organizational competency. Milwaukee Academy of Science's board of directors consists of 22 members. CRC conducted phone interviews, using a prepared interview guide, with the 20 board members who agreed to participate.

The board members have served on the board for an average of just under six years. Board members' backgrounds include banking, business, education, real estate, law, management, school parent, and volunteer experience.

Nineteen of the board members said they participated in strategic planning for the school. All 20 attended a presentation on the school's annual academic performance report and reviewed the school's annual financial audit; 19 received and approved the school's annual budget.

All 20 of the members reported that the board uses data to make decisions regarding the school. On a scale of poor to excellent, two of the board members rated the school as excellent, 15 rated the school as good, and three rated it as fair. All members either agreed or strongly agreed that the school was making progress toward becoming a high-performing school and that board members took their responsibilities seriously.

Performance Measure	Response				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Teacher-student ratio/class size at this school is appropriate.	3	16	1	0	0
Program of instruction (includes curriculum, equipment, and building) is consistent with the school's mission.	2	16	2	0	0
Students make significant academic progress at this school.	2	12	5	1	0
The administrator's financial management is transparent and efficient.	11	7	2	0	0
This school is making progress toward becoming a high-performing school.	7	13	0	0	0
This school has strong linkages to the community, including businesses.	7	9	3	1	0
The administrative staff's performance meets the board's expectations.	3	14	1	2	0
The majority of the board of directors take their varied responsibilities seriously.	13	7	0	0	0
This school has the financial resources to fulfill its mission.	3	14	2	1	0
The environment of this school ensures the safety of its students and staff.	10	8	2	0	0

When asked what they liked most about the school, the board members mentioned the following items:

- Dedication and enthusiasm of teachers and administrators;
- Wonderful students;
- Energetic and committed board;
- Commitment to goals and continuous improvement; and
- Partnerships with educational institutions.

Regarding things they like least, the board members mentioned:

- Lack of resources, especially money;
- Lack of diversity within students and staff;
- Lack of academic improvement/poor test scores;
- Student turnover; and
- Weak engagement with parents and the community.

When asked for one suggestion for improving the school, board members said:

- Implement a targeted intervention program for students who aren't succeeding;
- Teacher-parent communication must improve;
- Increase community connections; and
- Obtain social services for the students in the school;

Additional comments:

- Lack of funding for busing is hurting MAS.
- It is a great school that the board is committed to improving.