Milton Public Schools
Advancement Budget
FY2014-2015

School Committee Presentation
December 4, 2013

Vision of Milton Public Schools

The Vision of the Milton Public School system is to build and strengthen a dynamic community that challenges all students to thrive and achieve.

In order to create the educational system that supports this vision for all students and advances the Milton Public Schools, the following Advancement Budget initiatives are among the priorities of the FY15 Milton Public Schools budget.

Advancement Budget Initiatives

1. Emphasizing Early Literacy Achievement (PreK-3)
2. Closing the Proficiency Gaps (PreK-12)
3. Advancing Science and (STEM) Science, Technology, Engineering & Math Initiatives (PreK-12)

Advancement Initiatives
FY 14 Implementation

- The Milton Public Schools was fortunate to receive $515,000 in "Advancement" funding for the 2013/14 school year. These funds were immediately utilized over the summer to hire and purchase materials, provide professional development for teachers, and extended learning opportunities for students throughout the school year.
- The initiatives were based on the research and input of the Milton Public Schools Full Leadership Team. The implementation of the initiatives was the coordinated and collaborative effort of the Leadership Team.
- The implementation is in year one of a three year plan to increase the student outcomes of all students in the areas of Literacy and Science/ STEM as well as to accelerate the learning outcomes of targeted student groups who are not meeting with the level of success expected by the Milton Public Schools.

Advancement Literacy Initiative FY14 Implementation

- Hired 2 Reading Specialists doing direct service to 1st and 2nd graders (#1)
- Hired 1 Media Center Specialist – provided direct support to students and teachers in technology. (# 2)
- Formative Assessments implemented for student in grades 1 &2 as well as grades 3-7. (# 5)
- Reading Curriculum materials purchased to support Readers/Writer Workshop serving grades 1 & 2. (# 6)
- Professional development provided to all elementary teachers in assessment implementation, data analysis and readers workshop. (# 7)

Advancement Closing Proficiency Gap Initiative FY14 Implementation

- Programs addressing targeted extended day opportunities for students not meeting with success as measured by internal and external assessments. (# 4)
- Software used for teacher assessment, data collection and analysis and student reinforcement. Student assessments implemented in ELA, reading and math and data communicated and utilized for teacher analysis. (# 8)
- Materials purchased to support before and after extended learning programs offer to students. (#10)

Advancement Science / STEM Initiative
FY14 Implementation

- Hired a 1.0 Elementary Science position to oversee elementary science instruction and STEM implementation. (#3)
- Purchased WeDo Robotics materials and equipment for Grade 2 STEM Implementation. (# 11)
- Purchased hands on science materials and lab kits for grades 6-8 providing an indepth and engaging curriculum to students aligned to state standards. (# 12)
- Provided professional development for Pierce science teaching staff on new materials, instructional practices and assessment. (#13)

Initiative 1:Emphasizing Early Literacy Achievement

A. Research that supports the initiative:

Dr. Nonie K. Lesaux in Turning the Page: Refocusing Massachusetts for Reading Success (2010) outlines five target areas that must be addressed to produce measureable success in reading:

1. Program Design and Impact
2. Assessments of Student Outcomes
3. Professional Development
4. Curriculum
5. Partnerships with Families

Initiative 1: Emphasizing Early Literacy Achievement

A. Research (Cont.):

"….**Reading is the cornerstone of academic success.** There is a **limited window of time** in which to prevent reading difficulties and promote reading achievement; for most children what happens (or doesn't happen) **from infancy through age 9 is critical**.

By third grade, reading struggles are strongly linked to later school difficulties, as well as behavioral problems, depressions and dysfunctional and/or negative peer relationships.

What's more, research indicates that **74 percent of children whose reading skills are less than sufficient by third grade have a drastically reduced likelihood of graduating from high school**.

As a result, these children are **unlikely to develop the skills essential for participating fully in this knowledge-based economy** and for experiencing life success." (Lesaux, p.2)

***See Appendix 1, Strategies for Children (Page 22)**

Initiative 1: Emphasizing Early Literacy Achievement

B. Identified Need:

- 29% of students scored below Proficient on the Grade 3 Spring 2012 English/Language Arts MCAS exam
- 28% of students scored below Proficient on the Grade 3 Spring 2013 English/Language Arts MCAS exam
- Cumulative Proficiency Index (CPI) values continue to drop for identified low-achieving subgroups

***See Appendix 2, MCAS results (Page 31)**

Initiative 1: Emphasizing Early Literacy Achievement

C. Resources Required:

1. Program Design and Impact

- $58,000 – Hire a certified literacy specialist/coach to provide:
  - Targeted reading and writing instruction to Grade 3 students at risk of not scoring Proficient or Advanced on their Grade 3 May MCAS
  - Targeted instruction to Pre-School students who are not enrolled in pre-school and are at risk of not reading. Year one of a three year roll out of a Milton Public School pre-school program for students at risk.

  Position will also contribute to Closing the Proficiency Gap and Improving STEM and Science Achievement

- $58,000 – Hire a Parent Outreach/Parent Liaison to provide:
  - Direct communication with parents/guardians who are not involved in the public schools. Create opportunities for the parents/guardians and families to become involved in the schools.

  Position will also contribute to Closing the Proficiency Gap and Improving STEM and Science Achievement

Initiative 1: Emphasizing Early Literacy Achievement

C. Resources Required: (Cont.)

2. Assessments of Student Outcomes

3. Professional Development

- $10,000 – Provide targeted professional development to train teachers and support staff in the use of assessment tools, data analysis, and instructional planning to improve student achievement

4. Curriculum

- $20,000 – Purchase texts, materials and supplies to start a preschool partnership literacy program

5. Partnerships with Families

- Parent Outreach/Parent Liaison outlined in Program Design

Initiative 1: Emphasizing Early Literacy Achievement

D. Metrics to Measure Progress and Success:

1. Grade K-3 Formative Classroom Reading Assessments (Fountas and Pinnell Benchmark Assessment System; Scholastic Reading Inventory (SRI); Kindergarten Work Sampling System)
2. Grade 3 Spring 2015 MCAS Results

E. Anticipated Outcomes:

Milton Public Schools third graders will meet the DESE Spring 2015 MCAS Cumulative Proficiency Index (CPI) target of 93.7.

Initiative 2: Closing the Proficiency Gaps

A. Research that supports the initiative:

A Roadmap to Closing the Proficiency Gap submitted by the DESE's Proficiency Gap Task Force in April of 2010 states that "experience tells us that there are **consistent contributing factors that combine to produce underperformance**." (p. 16)

Milton's Advancement Budget addresses four of these factors:

1. **Lagging early literacy**. "…lagging reading skills in the early grades. If unaddressed, these deficiencies generate a disadvantage from which many never recover." (p.17)
2. **Not enough time in school**. "Children in challenging circumstances may simply need more time in school to achieve proficiency." (p.17)
3. **Lack of effective analysis of data**. (p.16)
4. **Differences in educator effectiveness**. (p.17)

Initiative 2: Closing the Proficiency Gaps

B. Identified Needs:

Spring 2012 MCAS Results identified two Proficiency Gap challenges:

- District's Cumulative Progress & Performance Index for the African American/Black student group - PPI = 70
- Pierce Middle School's Cumulative Progress & Performance Index for the Low Income student group – PPI = 74

Spring 2013 MCAS Result identified six Proficiency Gap challenges:

- District's Cumulative Progress & Performance Index for the High Needs student group – PPI = 63
- District's Cumulative Progress & Performance Index for the African American/Black student group – PPI = 64
- District's Cumulative Progress & Performance Index for the Multi-Race Non-Hispanic/Latino student group – PPI = 74
- Cunningham's Cumulative Progress & Performance Index for the High Needs student group – PPI = 51
- Pierce's Cumulative Progress & Performance Index for the High Needs student group – PPI = 62
- Pierce's Cumulative Progress & Performance Index for the African American/Black student group – PPI = 63

***See Appendix 3, Accountability Data (Page 34)**

Initiative 2: Closing the Proficiency Gaps

C. Resources Required:

1. Program Design and Impact

- $75,000 – Hire a District –Wide Digital Education Coordinator/Data Specialist to provide:
  - System-wide resources for the use of digital technology and support for the upcoming PARCC online assessments
  - Data-driven instruction to analyze student data and trends
- $25,000 - Calculus Project
  - Targeted summer pre-teaching sessions and school year tutorials to support at-risk students beginning in the 7th grade to achieve in the Honors Math track through Calculus
- $20,000 – Pierce Academy
  - Targeted after-school instruction for students identified as at risk by class performance, internal assessments and/or MCAS
- $22,000 – Elementary Before School/After School/Saturday/ Summer Targeted Instruction
  - Targeted instruction for students identified as at risk by class performance, internal assessments and/or MCAS

2. Assessments of Student Outcomes

$60,000 – Technology to Implement PARCC Assessment

- Purchase digital technology to support students in the classroom and to prepare for the upcoming PARCC online assessments

Initiative 2: Closing the Proficiency Gaps

C. Resources Required: (Cont.)

3. Professional Development

- $10,000 – Assessment (Including PARCC)
  - Continue training to use assessments to inform instruction
- $20,000 – Hire a Consultant to:
  - Evaluate current Milton Public School student achievement data, instructional practices and programs in order to make observations/recommendations to administrators on program development and best practices

4. Curriculum

- $80,000 – Non-Fiction/Fiction Leveled Readers
  - Purchase books for classroom libraries that allow students to access texts at independent and instructional levels
- $10,000 – Elementary Writers' Workshop Materials
- - Increase instructional materials for Writers' Workshop implementation

5. Partnerships with Families

Initiative 2: Closing the Proficiency Gaps

D. Metrics to Measure Progress and Success:

1. District-wide formative assessments used in all English, Math and Science MPS classrooms (Fountas and Pinnell Benchmark Assessment System; Scholastic Reading Inventory (SRI); Elementary, Middle and High School Common Unit Assessments)
2. Individual Student Action Plans – quarterly review of effectiveness of intervention strategies
3. Study Island
4. Spring 2015 MCAS Results

E. Anticipated Outcomes:

1. Underperforming subgroups will achieve a PPI value of 75 or higher.
2. Individual students who participate in the programs will achieve a Student Growth Percentile of 50 or higher.

Initiative 3: Advancing Science/STEM

A. Research that supports the initiative:

The 2011 Analysis and Insights from the Bayer Facts of Science Education Survey is a summary of 15 years of STEM research.

Highlights:

- **Science Literacy is critical for all Americans** young and old, scientist or non-scientist. (p. 1)
- **Improving science education for all students**- especially girls and underrepresented minorities should be a national priority and **begin at the earliest possible elementary level** since that is where the STEM workforce truly begins. (p. 1)
- For those who go on to become professionals, **interest in science begins early**- before age 11. (p. 10)

Initiative 3: Advancing Science/STEM

B. Identified Needs:

Spring 2012 MCAS Data:

- 37% of students scored below Proficient on the Grade 5 exam
- 52% of students scored below Proficient on the Grade 8 exam
- 18% of students scored below Proficient on the High School Biology exam

Spring 2013 MCAS Data:

- 30% of students scored below Proficient on the Grade 5 exam
- 58% of students scored below Proficient on the Grade 8 exam
- 9% of students scored below Proficient on the High School Biology exam

***See Appendix 4, Grades 5 and 8 Science MCAS, Milton High School Biology (Page 37)**

Initiative 3: Advancing Science/STEM

C. Resources Required:

1. **Program Design and Impact**

- $68,000 – Hire an Administrative position to:
  - Reorganize the secondary science administrative positions. This model will result in a MHS Department Head who teaches 2 periods and administers the remainder of the day. The Pierce Middle School will move from a .4 to a .6 Administrative model with no teaching responsibilities. Net increase of .4 teaching and .3 administrative positions.
- $20,000 – Hire a Consultant to:
  - Evaluate current Milton Public School student achievement data, instructional practices and programs in order to make observations/recommendations to administrators on program development and best practices

2. **Assessments of Student Outcomes**

Initiative 3: Advancing Science/STEM

C. Resources Required: (Cont.)

3. Curriculum

- $10,000 - Purchase texts, equipment and additional supplies for the expansion of the STEM program through 3rd Grade (hands-on Science materials)
  - Expand the STEM innovation pathway initiative to include Grade 3 for the 2014-2015 school year
- $70,000 - Purchase elementary science kits for Grades 3, 4 and 5 as well as materials, texts, assessments and software support
  - Purchase curriculum materials to align with Science curriculum frameworks and to support efforts to have all students attain Proficiency in science
- $30,000 – Robotics Materials (all grades)
  - Purchase materials to provide opportunities for students to explore Robotics as an extended day enrichment club and provide stipends for teachers/club advisors
  - Purchase materials to pilot a Robotics elective at Pierce Middle School
  - Purchase materials for the existing Robotics elective at Milton High School
- $54,000 – High School Science Materials
  - Update Biotech Course to a full year course
  - Begin introduction of digital equipment into all Science classes

Initiative 3: Advancing Science/STEM

C. Resources Required (Cont.)

4. **Professional Development**

- $30,000 – Provide targeted professional development to support teachers in the use of elementary, middle and high school science materials/kits

5. **Partnerships with Families**

Initiative 3: Advancing Science/STEM

D. Metrics to Measure Progress and Success:

1. District-wide grade level assessments of students' mastery at the end of each science unit and of Grade 1 and 2 LEGO WeDo program.
2. Spring 2015 Science MCAS scores

E. Anticipated Outcomes:

The district will meet the DESE 5th, 8th, and 10th grade CPI Science targets on the Spring 2015 MCAS exam

- Gr. 5 2014 CPI = 89.6
- Gr. 8 2014 CPI = 84.4
- Gr. 10 2014 CPI = 94.1

FY 15 Advancement Resources Required

ADVANCEMENT BUDGET	**Staff**	**Technology**	**Instructional Texts and Materials**	**Extended Time on Learning Salaries and Professional Development (PD)**
Early Literacy	$58,000 – LiteracySpecialist $58,000 – Parent Outreach Liaison		$80,000 – Non-Fiction Leveled Readers (K-5) $20,000 – Pre-K Texts and Materials	$10,000 – PD for teachers PARCC $10,000 – Early Literacy PD
Closing the Proficiency Gaps	$75,000 – District Wide Digital Education Coordinator/ Data Specialist	$60,000 – Technology to implement PARCC	$10,000 – Elementary Writers' Workshop	$10,000 – Proficiency Gap PD $40,000 Consultant for Review of Prof. Gap Initiatives $20,000 – Pierce Academy $22,000 – Elem. Before/ After School & Summer Targeted Instruction
Science/ STEM	$68,000 – Expand HS Science Head to Full Time and MS Coordinator to .6fte	$18,000 – Robotics Materials (all grades) $54,000 – HS Science Equipment	$70,000 – Elementary Science Kits (grades 3-5) $10,000 – STEM materials (grade 3)	$30,000 – Science PD (6-12) $12,000 – Robotics Stipends $25,000 – *The Calculus Project*
Total Advancement	**3.7 FTEs**			**$760,000**

Final

This presentation helps to summarize what we see as the most pressing Advancement Initiatives to the district. These initiatives outline the school system's need to sustain the success we have had.

We will not be able to sustain that success unless we remain focused and make the commitment of time and resources necessary to promote higher academic achievement for all students.

Strategies for Children

Lessons Learned: Leveraged Investments in High-Quality Early Education to Narrow the Achievement Gap

Joint Conference of the Massachusetts School Committees and Superintendents

November 8, 2013

Appendix 1

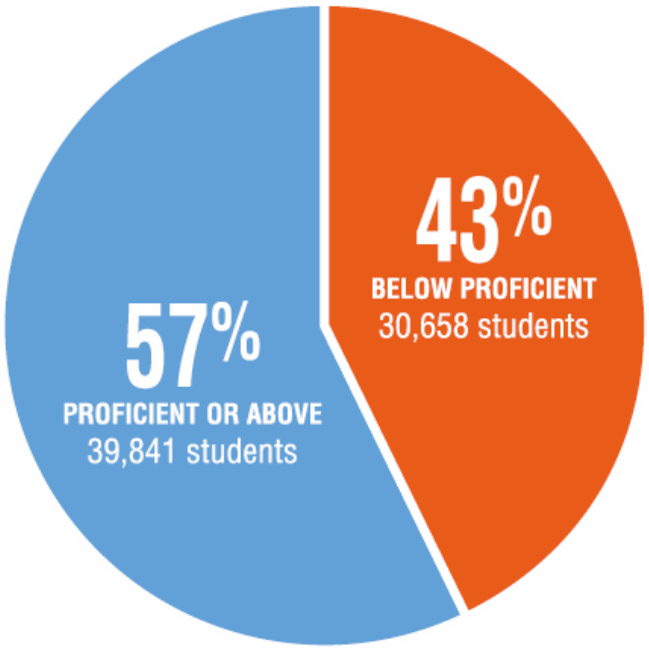
Strategies for Children

In Massachusetts

- MA frequently outscores all other states on national tests.
- MA is #1 on the National Assessment of Educational Progress (NAEP) in 4th and 8th grade reading and math.
- 91 % of 10th grade students scored proficient or higher in English Language Arts on the 2013 MCAS
- **So…what is the problem?**

Strategies for Children

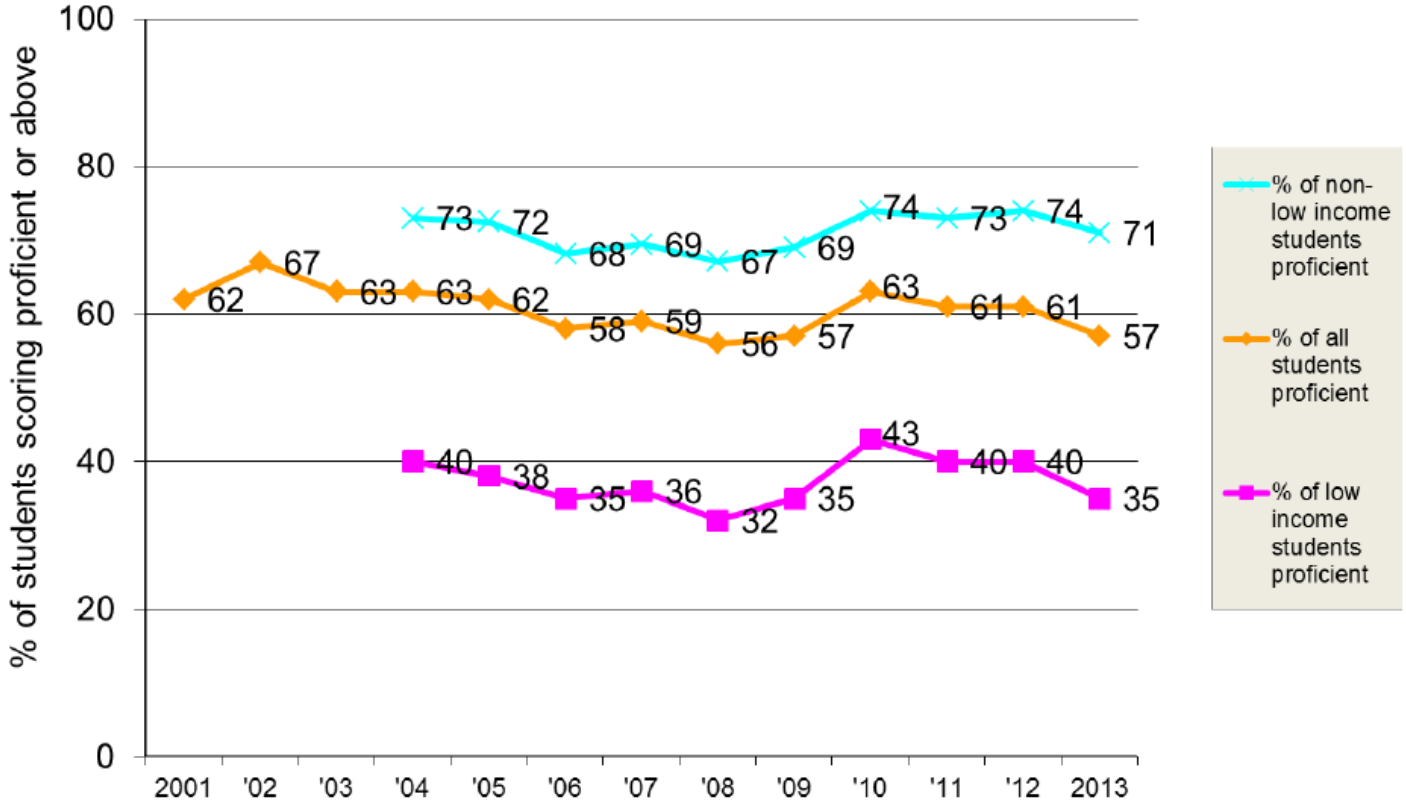
2013 MCAS: 3rd Grade Reading



Source: Massachusetts Comprehensive Assessment System (MCAS), Massachusetts Department of Elementary and Secondary Education
Chart Courtesy of Strategies for Children

Strategies for Children

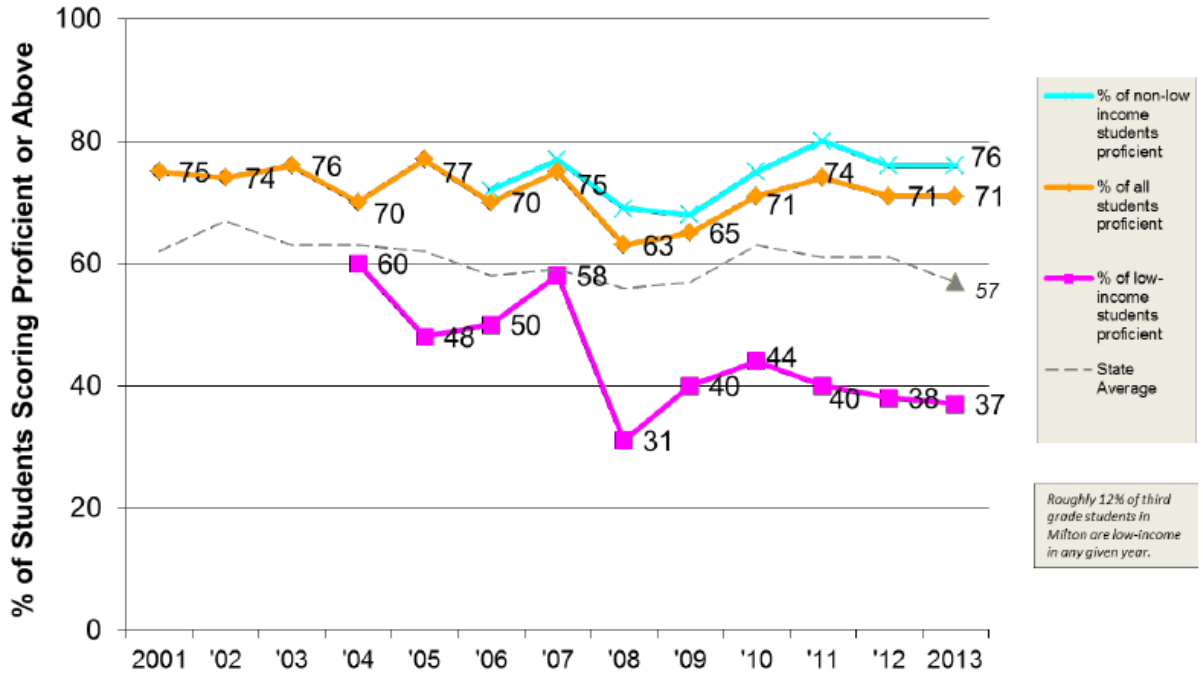
Third Grade Reading Achievement Gap in Massachusetts



Source: Massachusetts Comprehensive Assessment System (MCAS), Massachusetts Department of Elementary and Secondary Education.

Strategies for Children

Third Grade Reading Proficiency in Milton:
MCAS, 2001-2013



Source: Massachusetts Comprehensive Assessment System (MCAS), Massachusetts Department of Elementary and Secondary Education

www.strategiesforchildren.org

Strategies for Children

The Stakes are High

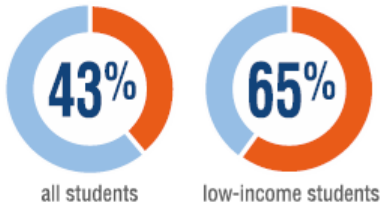
- **Three-quarters** of children who struggle with reading in third grade will continue to struggle in school.
- Children who do not read proficiently by the end of third grade are **four times less likely** than their peers to graduate from high school by age 19.
- Only **83%** of Massachusetts ninth graders finish high school four years later. The average high school dropout in Massachusetts costs taxpayers an estimated **$349,000** more over his/her lifetime than the average high school graduate.

Fletcher, J. M., & Lyon, G. R. (1998). Reading: A research-based approach. In W. M. Evers (Ed.), What's Gone Wrong in America's Classrooms (49–90). Stanford, CA: Hoover Institution Press.; Hernandez, D. J. (2011). Double Jeopardy: How third grade reading skills and poverty influence high school graduation. The Annie E. Casey Foundation.; Massachusetts Department of Elementary and Secondary Education, Cohort 2011, 4-Year Graduation Rate.; Sum, A., Khatiwada, I., McLaughlin, J. Tobar, P., & Motroni, J. (January 2007). An Assessment of the Labor Market, Income, Health, Social, Civic and Fiscal Consequences of Dropping Out of High School: Findings for Massachusetts Adults in the 21st Century.
Center for Labor Market Studies Northeastern University.

Strategies for Children

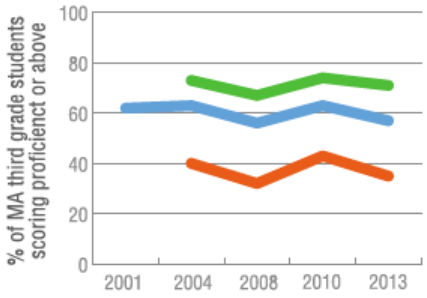
Invest Early or Pay Later

Massachusetts third graders scoring below proficient in reading in 2013



16% of children who are not reading proficiently by the end of third grade do not graduate from high school on time

Reading performance has been stagnant for more than a decade



% of non-low income students proficient
% of students proficient
% of low income students proficient

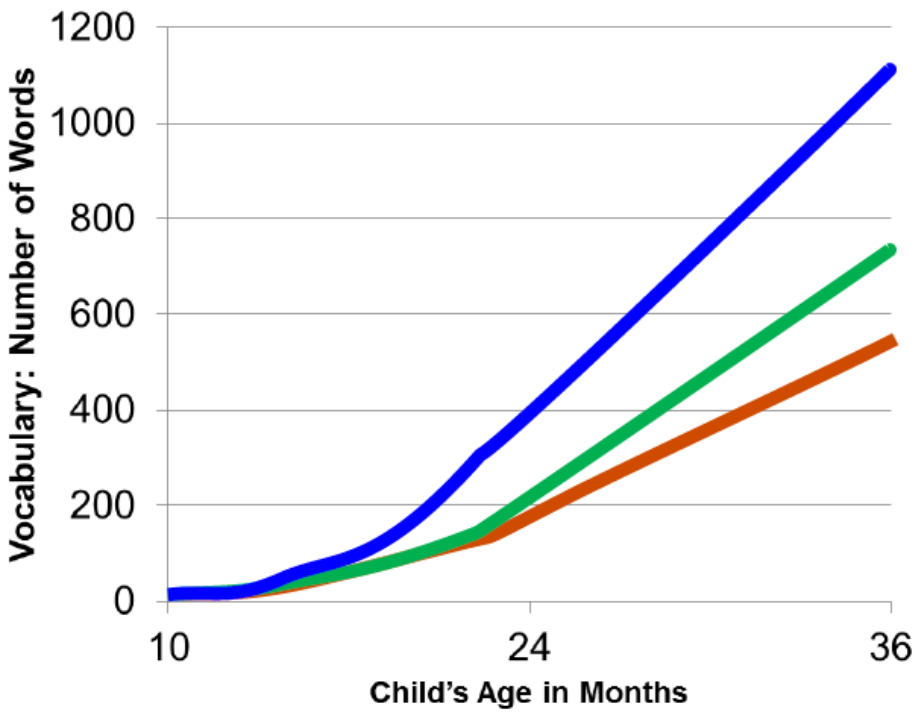
=$349,000

estimated costs to taxpayers of a Massachusetts high school dropout over his/her lifetime compared to a high school graduate

Sources: Massachusetts Department of Elementary and Secondary Education; Hernandez, D. J. (2012). Double Jeopardy: How third grade reading skills and poverty influence high school graduation. The Annie E. Casey Foundation.; Sum, A., Khatiwada, I., McLaughlin, J. Tobar, P., & Motroni, J. (January 2007). An Assessment of the Labor Market, Income, Health, Social, Civic and Fiscal Consequences of Dropping Out of High School: Findings for Massachusetts Adults in the 21st Century.

Strategies for Children

The Achievement Gap at Age Three



1,116 words
(Children in professional families)

749 words
(Children in working class families)

525 words
(Children in welfare families)

Graph adapted from Hart, B. & Risley, T. R. (1995). Meaningful Difference in the Everyday Experiences of Young Children. Baltimore, MD: Paul H. Brookes Publishing Co. Researchers grouped children into three socioeconomic status groups based on occupation: "Professional" "Working Class" and "Welfare". Groups strongly correlated with parents education levels and family income.

Strategies for Children

Why Invest in High-Quality Early Education

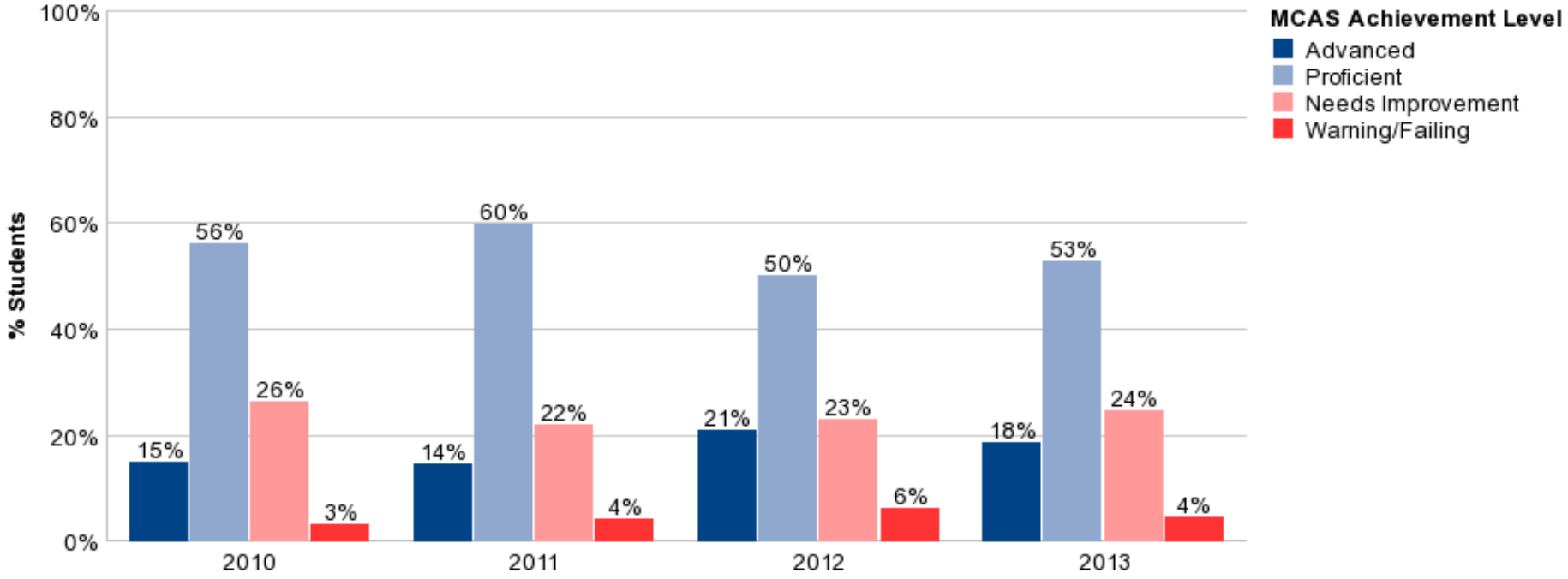
- A child's brain grows most rapidly from birth through age 5.
- High-quality early education improves school readiness and achievement.
- Low-income children who participate in high-quality early education are:
  - 40% less likely to need special education or be retained a grade.
  - 30% more likely to graduate from high school.
  - Twice as likely to go to college.
- Improved child outcomes help lower public costs in education, health care, social services
- Investments in high-quality early education for low-income children yield an estimated 10-16% rate of return.

For brain research see: Rethinking the Brain: New Insights into Early Development by Rima Shore (NY: Families and Work Institute, 1997)

For "40, 30, twice as likely" see: Reynolds, A. J., et al. (2001). Long-term Effects of an Early Childhood Intervention on Educational Achievement and Juvenile Arrest. JAMA, 285(18), 2339-2346.; Reynolds, A. J., et al. (2007). Effects of a School-Based, Early Childhood Intervention on Adult Health and Well-Being. Archives of Pediatrics & Adolescent Medicine, 161(8), 730-739.; Barnett, W. S. & Masse, L. N. (2007). Comparative benefit-cost analysis of the Abecedarian program and its policy implications. Economics of Education Review, 26, 113-125.

For 16% return on investment see: Rolnick, A. and Grunewald, R. (2003). Early childhood development: Economic development with a high return. Retrieved from http://www.minneapolisfed.org/publications_papers/studies/earlychild/abc-part2.pdf.

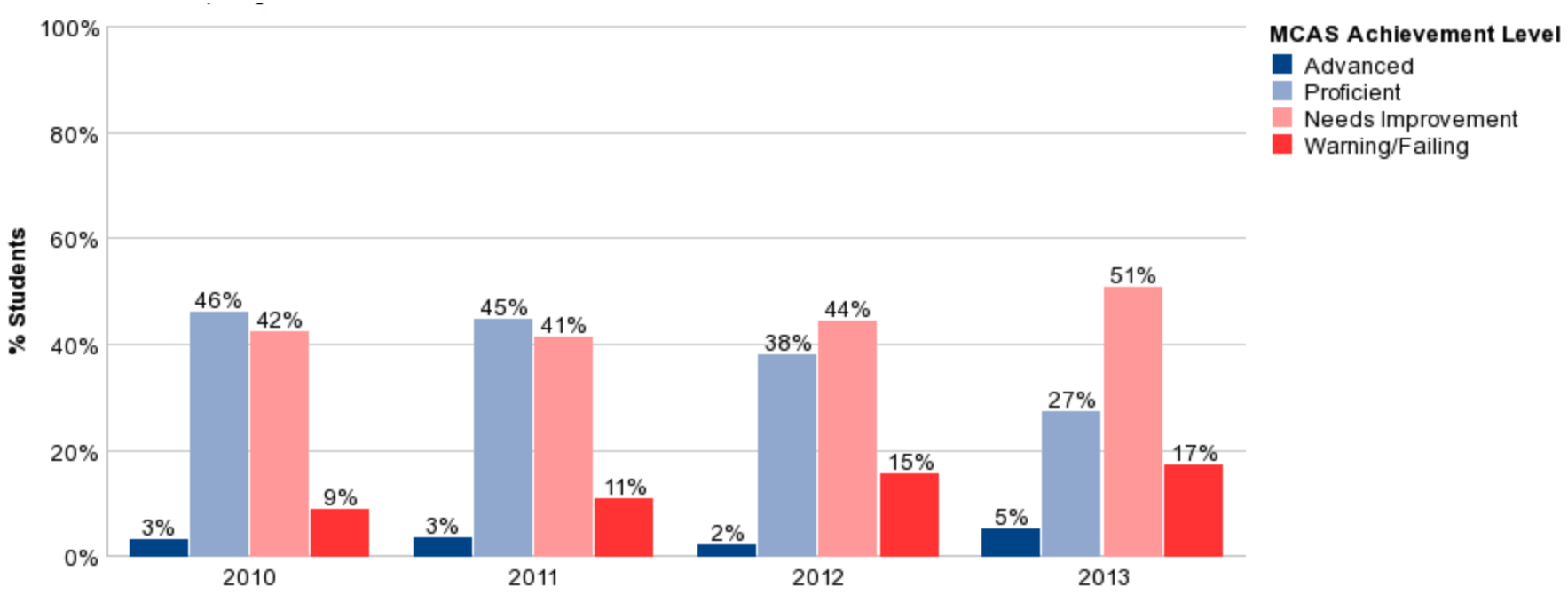
Grade 3 ELA – All Students



	2010		2011		2012		2013	
	District	State	District	State	District	State	District	State
Advanced	15%	14%	14%	11%	21%	15%	18%	12%
Proficient	56%	49%	60%	50%	50%	46%	53%	45%
Needs Improvement	26%	30%	22%	30%	23%	30%	24%	36%
Warning/Failing	3%	8%	4%	9%	6%	9%	4%	8%
N Students	318	70,622	293	69,978	331	70,709	348	70,499
CPI	90.4	85.8	90.5	83.9	88.8	84.1	90.6	83.3
Median SGP								

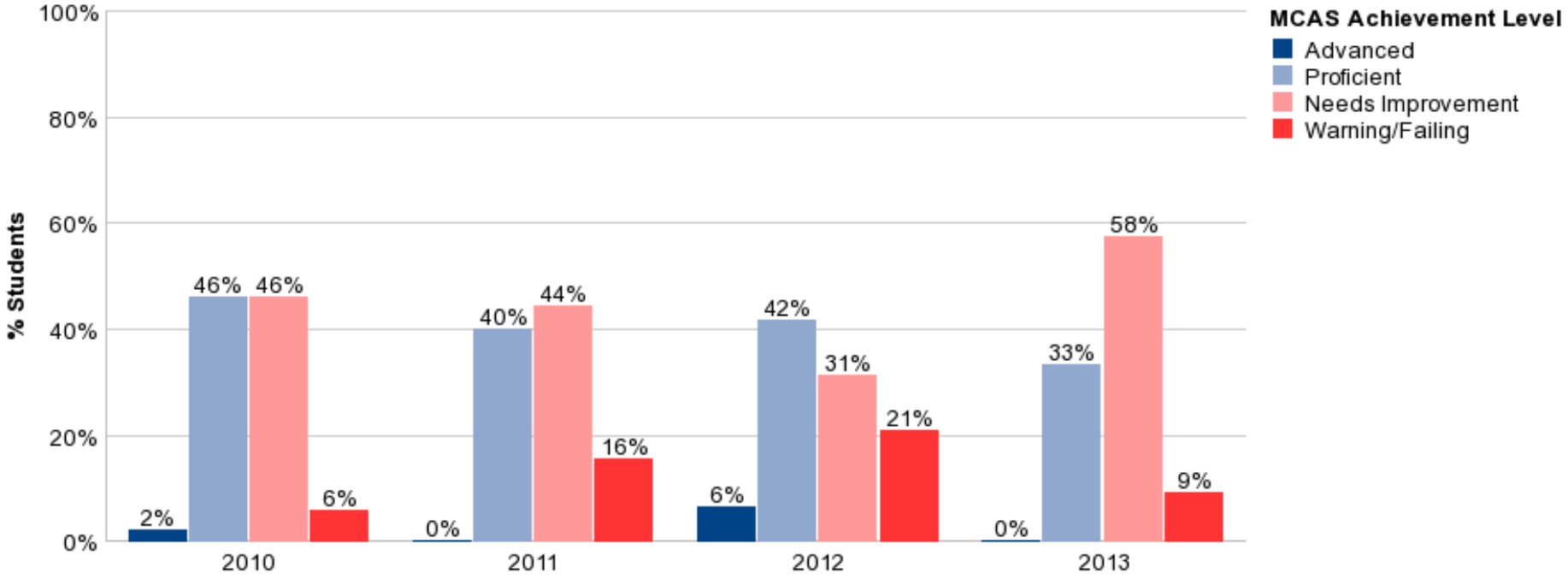
Appendix 2

Grade 3 ELA – High Needs Students



	2010		2011		2012		2013	
	District	State	District	State	District	State	District	State
Advanced	3%	5%	3%	4%	2%	6%	5%	4%
Proficient	46%	36%	45%	35%	38%	34%	27%	31%
Needs Improvement	42%	43%	41%	44%	44%	43%	51%	50%
Warning/Failing	9%	15%	11%	17%	15%	17%	17%	15%
N Students	104	33,469	92	33,772	97	34,739	81	35,307
CPI	82.5	76.1	80.4	73.2	76.3	73.6	75.9	73.0
Median SGP								

Grade 3 ELA – African American/Black Students



	2010		2011		2012		2013	
	District	State	District	State	District	State	District	State
Advanced	2%	6%	0%	3%	6%	5%	0%	3%
Proficient	46%	36%	40%	34%	42%	33%	33%	29%
Needs Improvement	46%	43%	44%	45%	31%	44%	58%	52%
Warning/Failing	6%	15%	16%	18%	21%	18%	9%	15%
N Students	52	5,485	45	5,473	48	5,596	33	5,640
CPI	80.8	75.6	74.4	71.4	78.1	71.8	74.2	71.9
Median SGP								

*No achievement level percentages were calculated for the Multi-Race, Non-Hisp/Latino subgroup because it is a group containing less than 10 students.

2013 Accountability Data - District

This district's progress toward narrowing proficiency gaps (Cumulative Progress and Performance Index: 1-100)

Student Group (Click group to view subgroup data)	On Target = 75 or higher - Less progress / More progress		View Detailed 2013 Data
All students		80	Met Target
High needs		63	Did Not Meet Target
Low income		67	Did Not Meet Target
ELL and Former ELL		73	Did Not Meet Target
Students w/disabilities		62	Did Not Meet Target
Amer. Ind. or Alaska Nat.			-
Asian		92	Met Target
Afr. Amer./Black		64	Did Not Meet Target
Hispanic/Latino		100	Met Target
Multi-race, Non-Hisp./Lat.		74	Did Not Meet Target
Nat. Haw. or Pacif. Isl.			-
White		99	Met Target

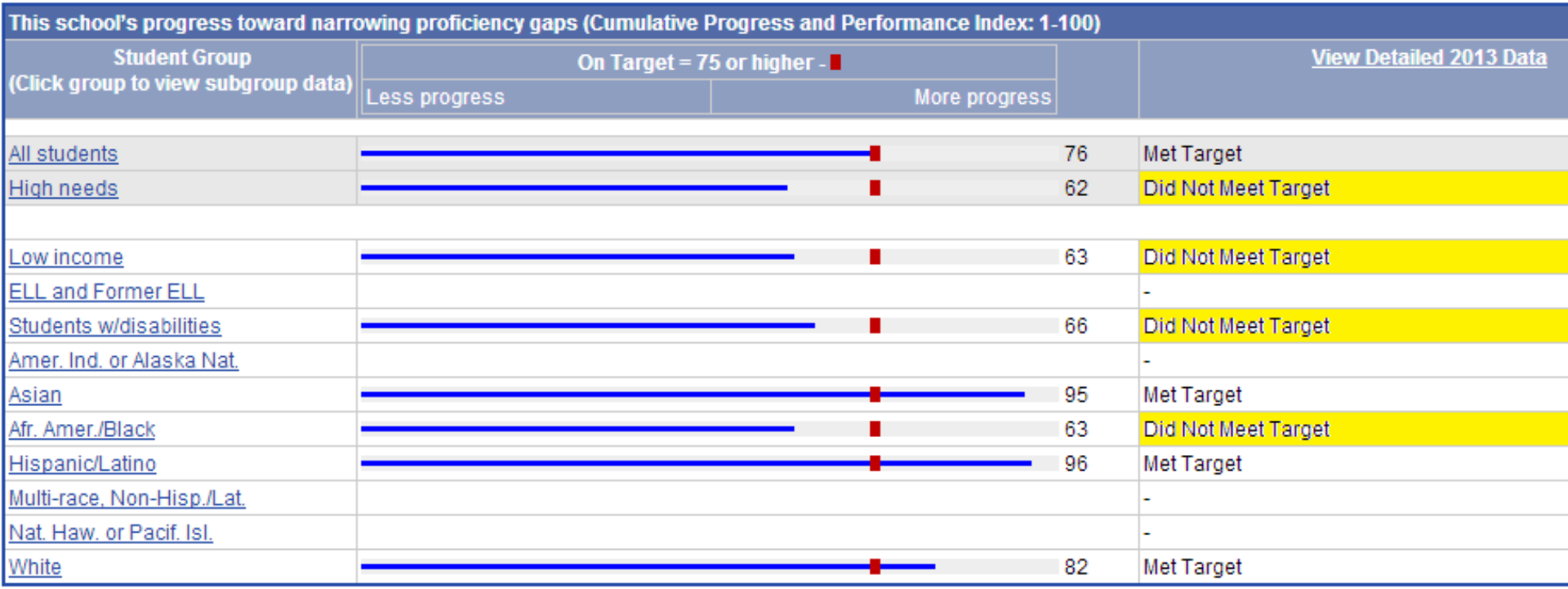
Appendix 3

High Needs includes Low Income, Students with Disabilities and English Language Learners (ELL)

2013 Accountability Data - Cunningham

This school's progress toward narrowing proficiency gaps (Cumulative Progress and Performance Index: 1-100)			
Student Group (Click group to view subgroup data)	On Target = 75 or higher - Less progress / More progress		View Detailed 2013 Data
All students		96	Met Target
High needs		51	Did Not Meet Target
Low income			-
ELL and Former ELL			-
Students w/disabilities			-
Amer. Ind. or Alaska Nat.			-
Asian			-
Afr. Amer./Black			-
Hispanic/Latino			-
Multi-race, Non-Hisp./Lat.			-
Nat. Haw. or Pacif. Isl.			-
White		100	Met Target

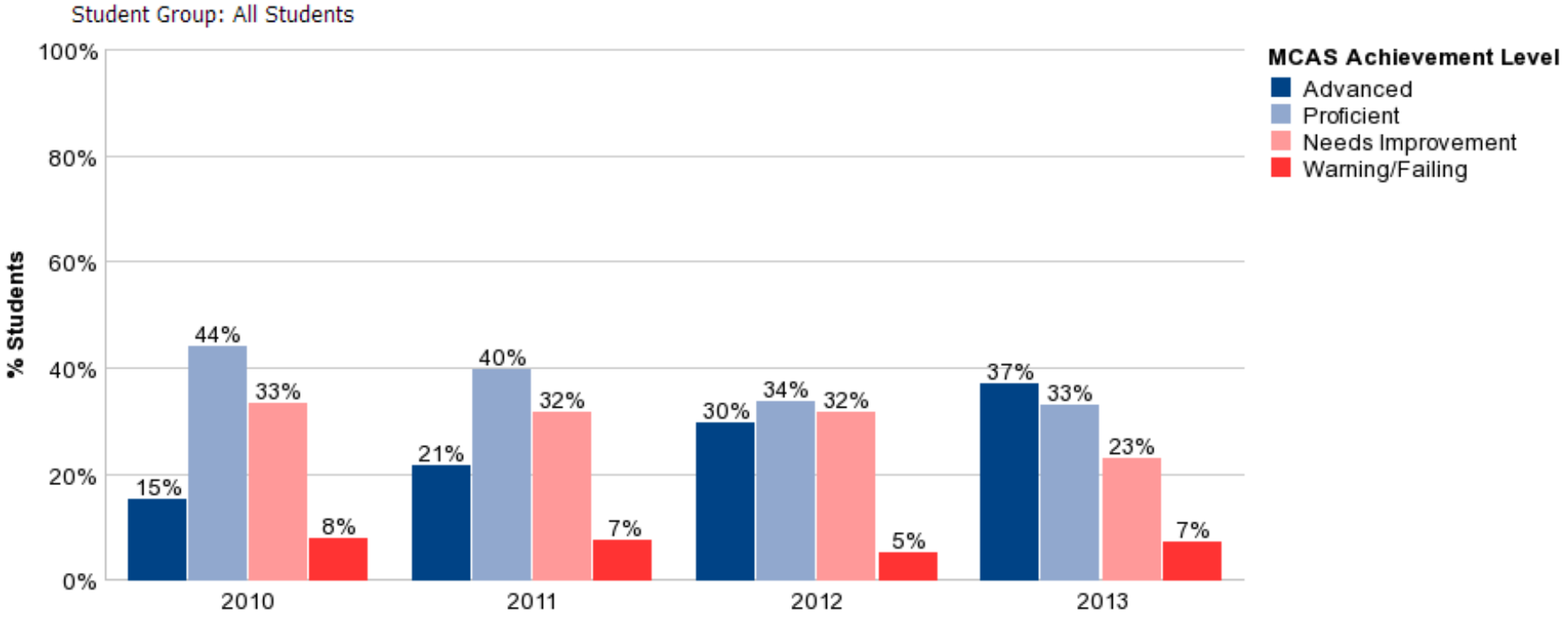
2013 Accountability Data - Pierce



This school's progress toward narrowing proficiency gaps (Cumulative Progress and Performance Index: 1-100)

Student Group (Click group to view subgroup data)	On Target = 75 or higher - Less progress / More progress		View Detailed 2013 Data
All students		76	Met Target
High needs		62	Did Not Meet Target
Low income		63	Did Not Meet Target
ELL and Former ELL			-
Students w/disabilities		66	Did Not Meet Target
Amer. Ind. or Alaska Nat.			-
Asian		95	Met Target
Afr. Amer./Black		63	Did Not Meet Target
Hispanic/Latino		96	Met Target
Multi-race, Non-Hisp./Lat.			-
Nat. Haw. or Pacif. Isl.			-
White		82	Met Target

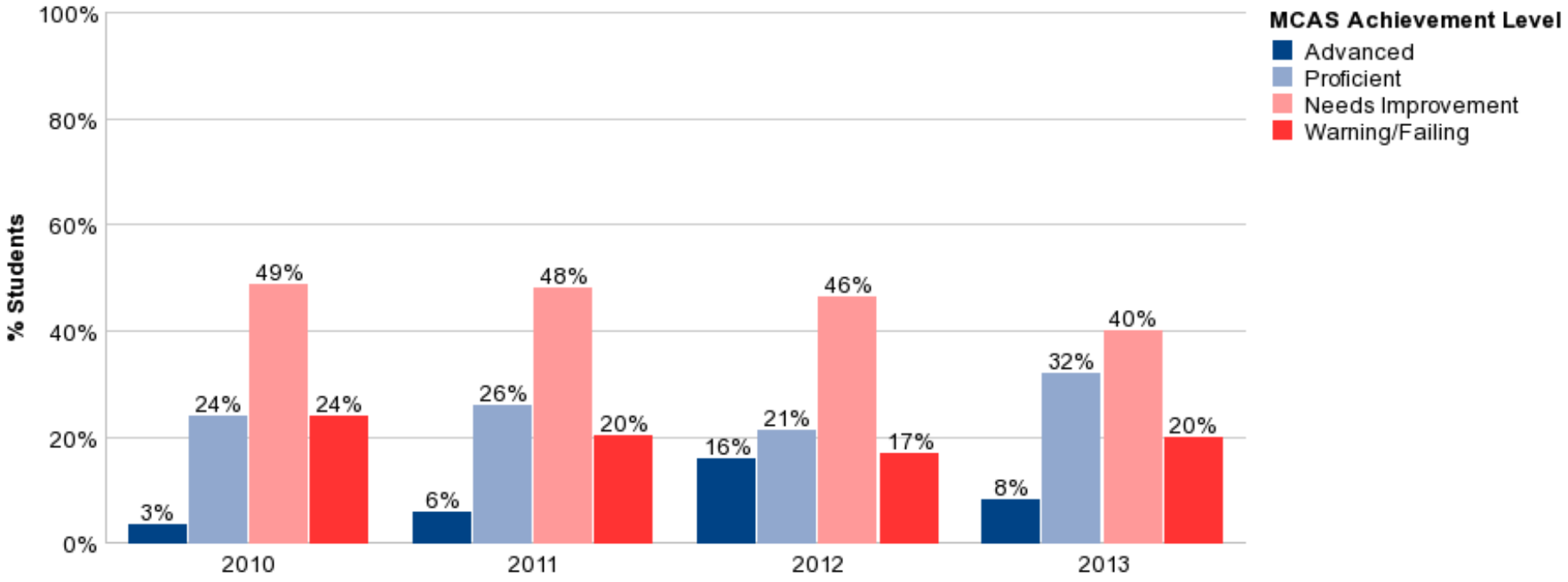
Grade 5 Science – All Students



	2010		2011		2012		2013	
	District	State	District	State	District	State	District	State
Advanced	15%	15%	21%	14%	30%	22%	37%	20%
Proficient	44%	38%	40%	36%	34%	30%	33%	31%
Needs Improvement	33%	36%	32%	36%	32%	34%	23%	36%
Warning/Failing	8%	11%	7%	15%	5%	14%	7%	12%
N Students	294	70,931	332	71,382	307	71,373	300	70,842
CPI	83.6	79.7	84.4	77.0	86.0	77.8	87.8	78.5
Median SGP								

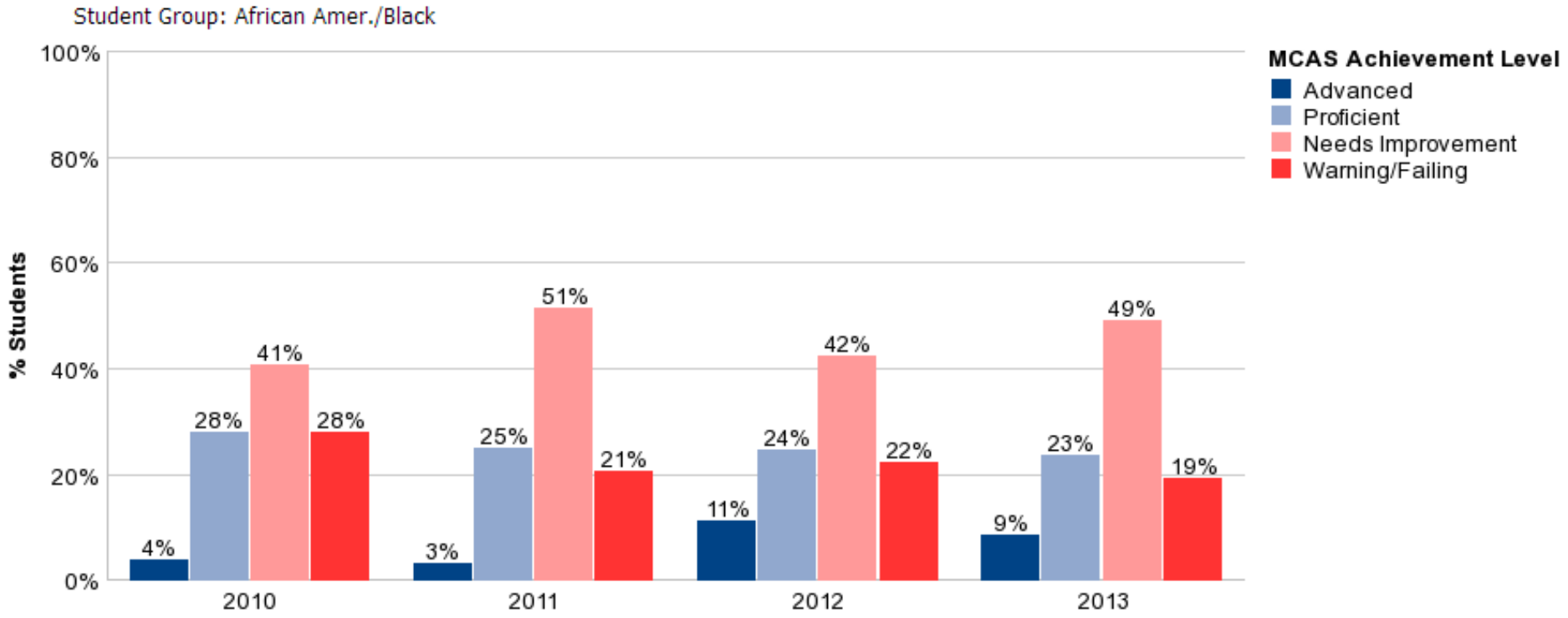
Appendix 4

Grade 5 Science – High Needs Students



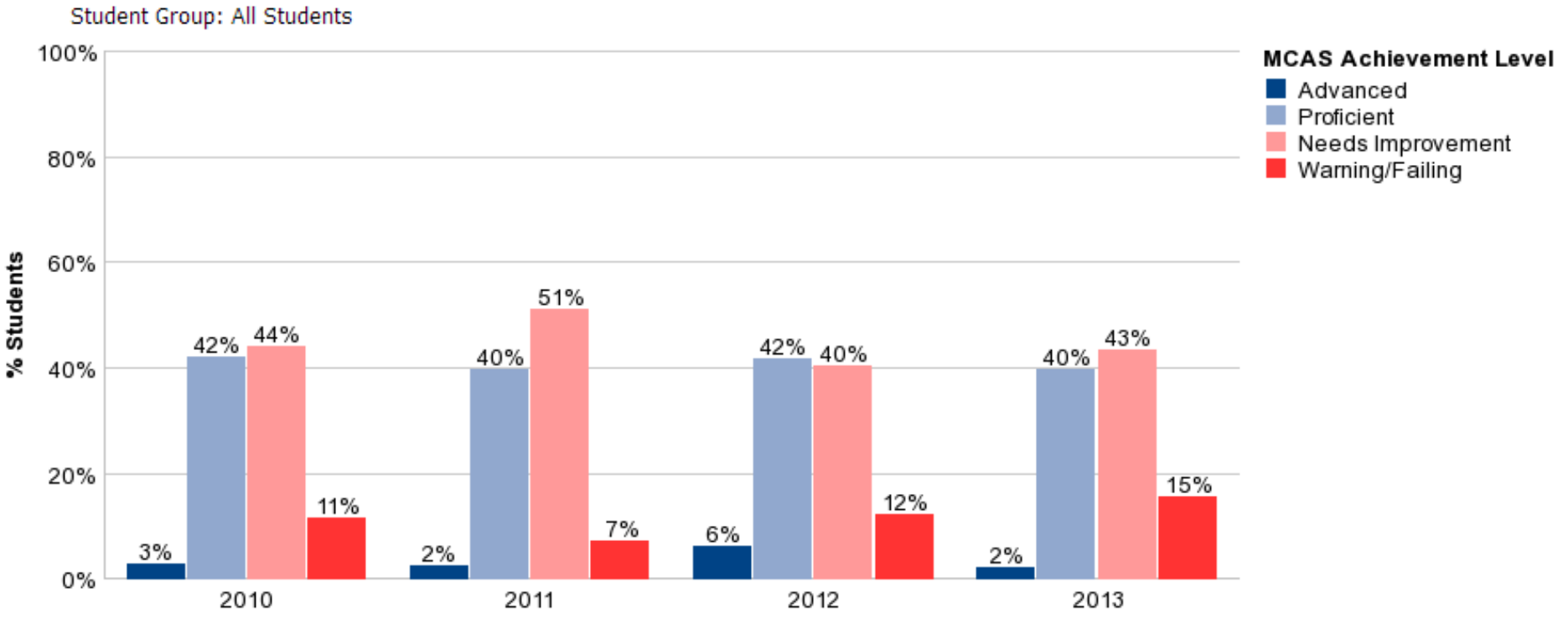
	2010		2011		2012		2013	
	District	State	District	State	District	State	District	State
Advanced	3%	4%	6%	4%	16%	8%	8%	7%
Proficient	24%	25%	26%	23%	21%	21%	32%	22%
Needs Improvement	49%	48%	48%	45%	46%	44%	40%	47%
Warning/Failing	24%	23%	20%	28%	17%	27%	20%	23%
N Students	88	32,659	104	33,917	95	34,811	75	34,714
CPI	66.2	66.8	69.7	63.6	71.6	64.5	74.0	66.7
Median SGP								

Grade 5 Science – African Amer./Black Students



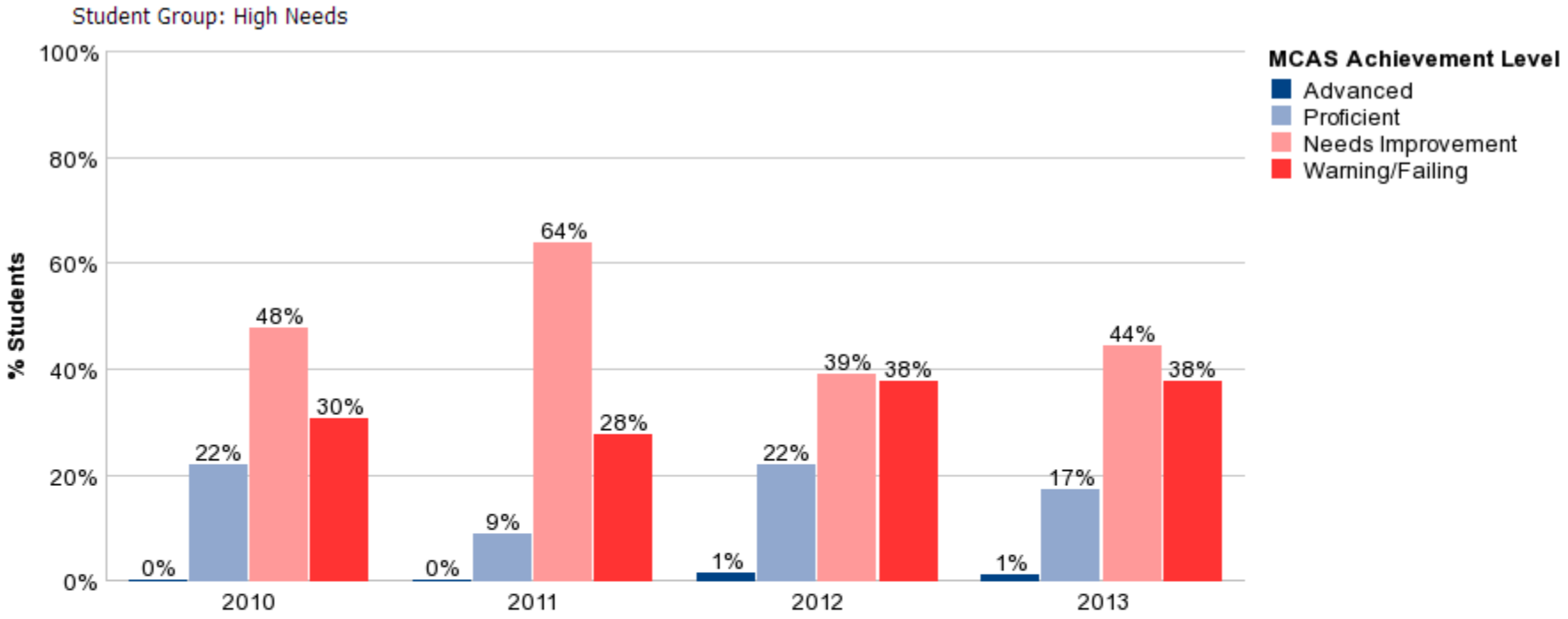
	2010		2011		2012		2013	
	District	State	District	State	District	State	District	State
Advanced	4%	3%	3%	2%	11%	5%	9%	6%
Proficient	28%	20%	25%	17%	24%	17%	23%	18%
Needs Improvement	41%	50%	51%	45%	42%	45%	49%	47%
Warning/Failing	28%	27%	21%	35%	22%	33%	19%	28%
N Students	54	5,694	68	5,676	45	5,881	47	5,876
CPI	65.7	61.5	66.9	57.2	67.2	58.8	71.8	61.8
Median SGP								

Grade 8 Science – All Students



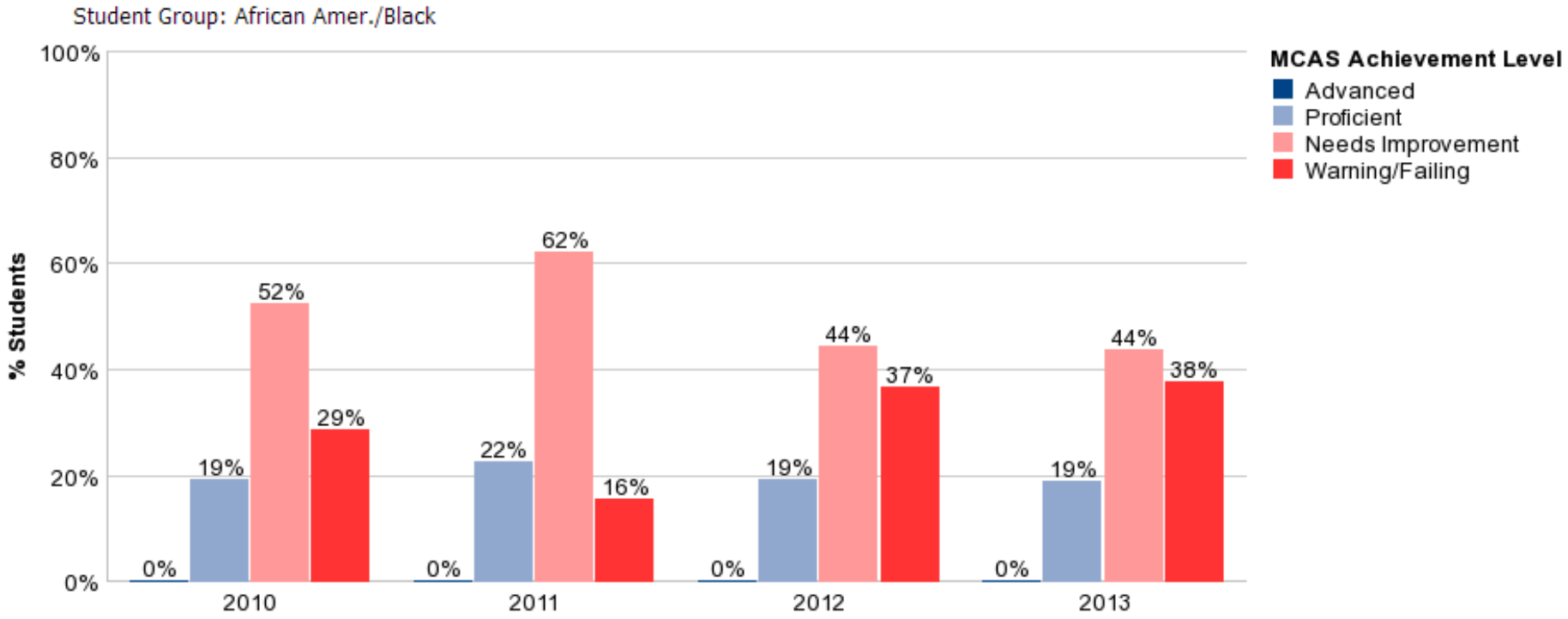
	2010		2011		2012		2013	
	District	State	District	State	District	State	District	State
Advanced	3%	4%	2%	4%	6%	5%	2%	4%
Proficient	42%	36%	40%	35%	42%	38%	40%	35%
Needs Improvement	44%	41%	51%	42%	40%	38%	43%	43%
Warning/Failing	11%	19%	7%	19%	12%	20%	15%	18%
N Students	274	72,026	272	71,569	267	72,535	268	72,038
CPI	76.7	71.0	75.8	70.3	78.1	71.6	72.9	71.0
Median SGP								

Grade 8 Science – High Needs Students



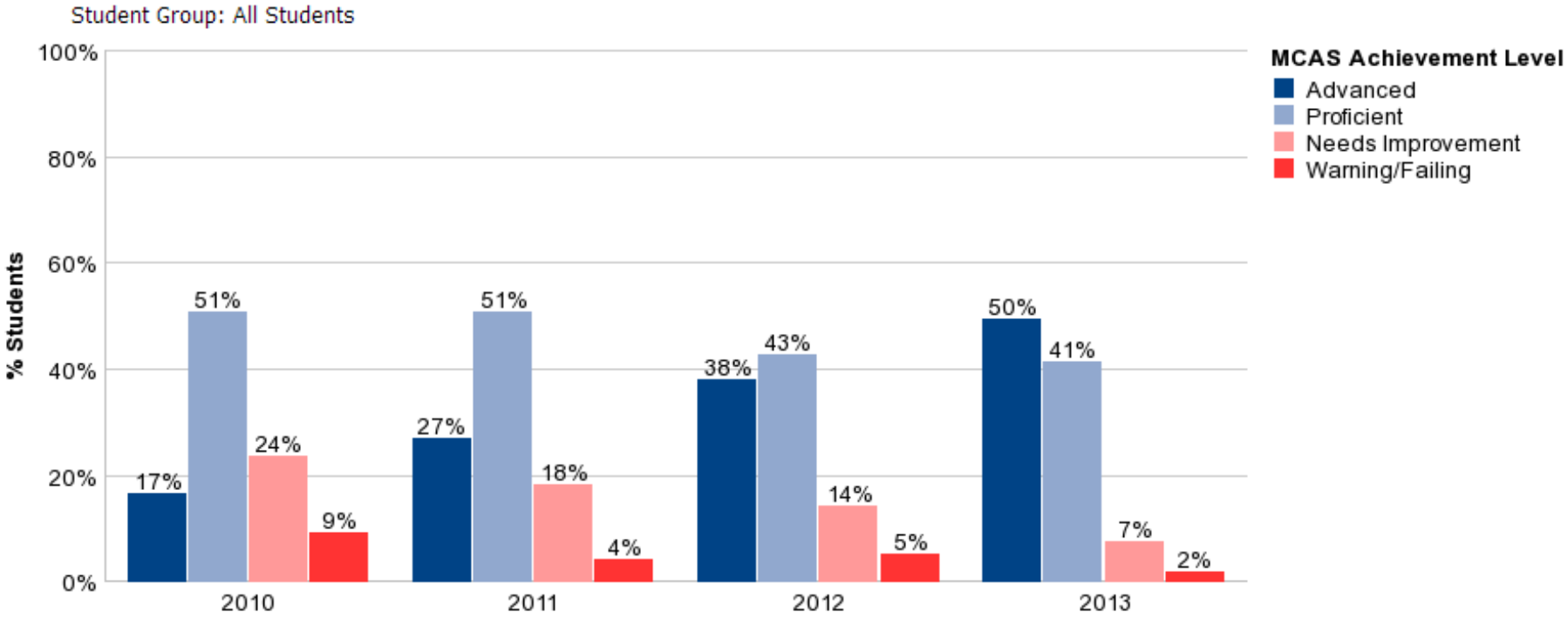
	2010		2011		2012		2013	
	District	State	District	State	District	State	District	State
Advanced	0%	1%	0%	1%	1%	1%	1%	1%
Proficient	22%	16%	9%	16%	22%	18%	17%	18%
Needs Improvement	48%	46%	64%	47%	39%	42%	44%	47%
Warning/Failing	30%	37%	28%	36%	38%	38%	38%	34%
N Students	69	31,267	58	31,899	69	33,096	88	33,596
CPI	64.1	55.1	54.3	54.9	62.0	55.8	56.3	56.6
Median SGP								

Grade 8 Science – African Amer./Black Students



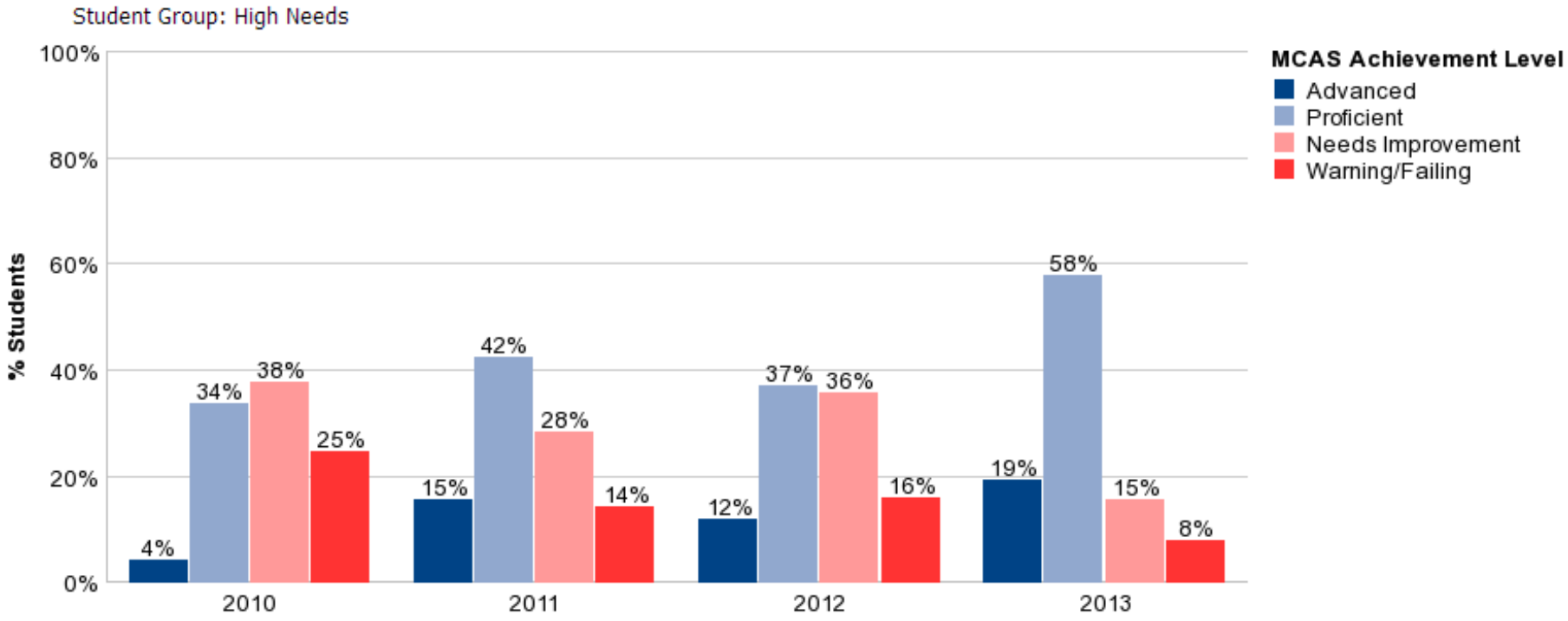
	2010		2011		2012		2013	
	District	State	District	State	District	State	District	State
Advanced	0%	0%	0%	1%	0%	1%	0%	1%
Proficient	19%	13%	22%	13%	19%	16%	19%	16%
Needs Improvement	52%	46%	62%	46%	44%	41%	44%	46%
Warning/Failing	29%	41%	16%	41%	37%	42%	38%	38%
N Students	63	5,809	58	5,799	52	6,137	64	6,186
CPI	62.3	51.4	65.5	50.7	56.3	52.5	53.5	53.7
Median SGP								

High School Biology– All Students



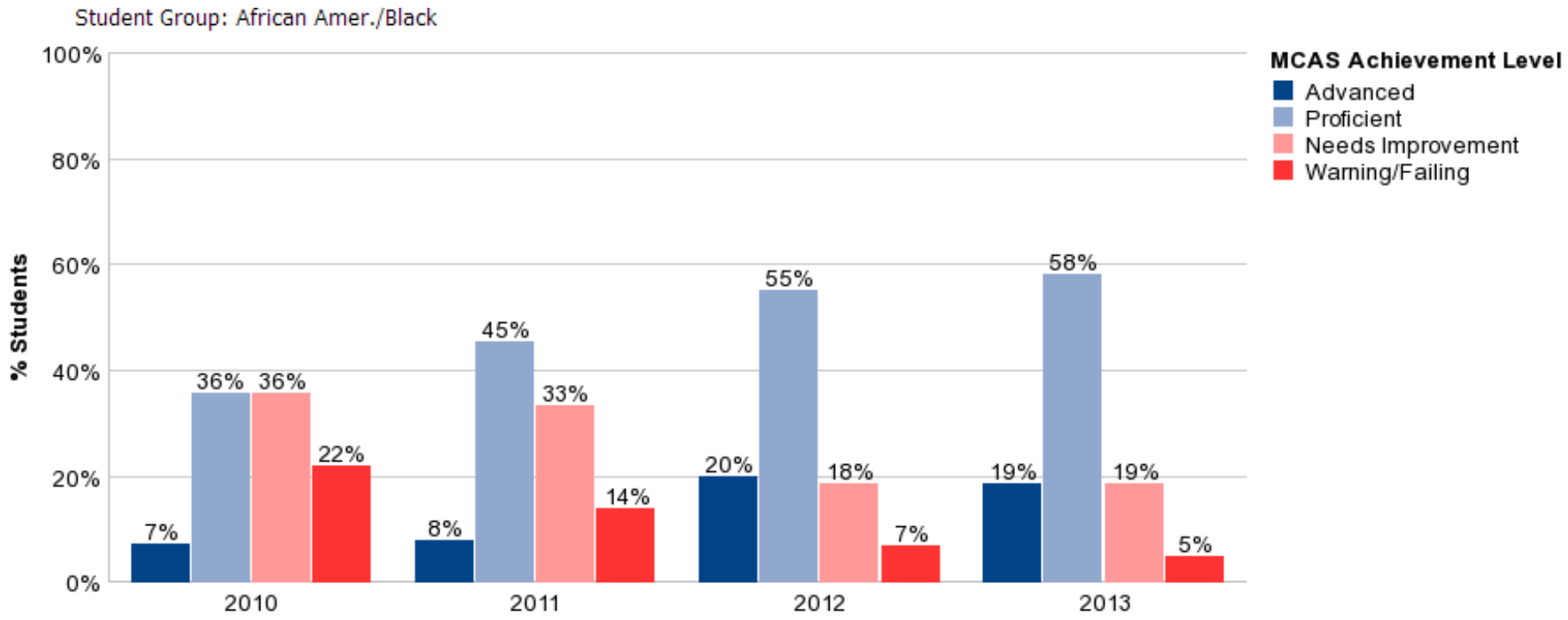
	2010		2011		2012		2013	
	District	State	District	State	District	State	District	State
Advanced	17%	17%	27%	25%	38%	26%	50%	31%
Proficient	51%	46%	51%	46%	43%	46%	41%	42%
Needs Improvement	24%	23%	18%	21%	14%	21%	7%	20%
Warning/Failing	9%	13%	4%	9%	5%	8%	2%	8%
N Students	289	54,147	242	49,371	250	49,113	230	49,339
CPI								
Median SGP								

High School Biology– High Needs Students



	2010		2011		2012		2013	
	District	State	District	State	District	State	District	State
Advanced	4%	5%	15%	8%	12%	9%	19%	12%
Proficient	34%	34%	42%	39%	37%	40%	58%	39%
Needs Improvement	38%	34%	28%	34%	36%	34%	15%	33%
Warning/Failing	25%	27%	14%	19%	16%	16%	8%	16%
N Students	77	24,428	71	21,012	76	21,590	52	21,877
CPI								
Median SGP								

High School Biology– Afr. Amer./Black Students



	2010		2011		2012		2013	
	District	State	District	State	District	State	District	State
Advanced	7%	4%	8%	7%	20%	8%	19%	11%
Proficient	36%	32%	45%	40%	55%	41%	58%	39%
Needs Improvement	36%	36%	33%	34%	18%	34%	19%	34%
Warning/Failing	22%	27%	14%	18%	7%	16%	5%	16%
N Students	87	4,586	66	3,649	60	3,745	43	3,806
CPI								
Median SGP								