MARYLAND STATE DEPARTMENT OF EDUCATION
EQUITY AND EXCELLENCE

Mohammed Choudhury
State Superintendent of Schools

To: Members of the State Board of Education

From: Mohammed Choudhury, State Superintendent of Schools

Date: April 25, 2023

Subject: Reducing Overidentification and Narrowing Achievement Gaps Case Study: Lexington Public Schools (Lexington, MA)

Purpose

To provide a briefing to the State Board of Education on one local education agency's actions to reduce overidentification in special education and the success that effort yielded for all students. The presentation will include a case study of Lexington Public Schools (MA).

Background/Historical Perspective

Consistently across the country, states report that students returning to school after extended closures displayed a higher level of behavioral challenges. Teachers were not prepared for their students' behavior and the loss of academic skills, resulting in higher rates of identifying students as having an intellectual disability, emotional disability, or "other health impairment" (often ADHD); and disciplinary removals. This was particularly evident for African American, English learner, male, and economically disadvantaged students. The use of intellectual and emotional disability codes is often associated with the removal of these students to more restrictive and segregated settings. This can negatively impact students who face additional barriers and bias as compared to their non-identified peers. Students who are misidentified are vulnerable to a curriculum, instruction, and supports misaligned with their actual need.

Executive Summary

Former Lexington Public Schools (MA) Superintendent Paul Ash is a co-author of the book *School Systems That Learn* and an expert on closing achievement gaps. This session will explore the efforts of Lexington Public Schools, under the leadership of Mr. Ash, to address the disproportionate rates of African American students who were who were being identified as needing special education services. Mr. Ash will discuss the comprehensive efforts undertaken by the LEA, how the LEA mustered support from its teachers union to engage in this work, and how comprehensive efforts ultimately closed gaps while also increasing achievement for all students.

Action

No action is required; this information is for discussion only.

Attachments

Narrowing Achievement Gaps in Lexington Public Schools (Ferguson study.pdf)

The Achievement Gap in Lexington Public Schools: Documentation, Research, and Recommendations (LaMura Report.pdf)

Education Trust ExtraOrdinary District Profile: Lexington Public Schools (ExtraordinaryDistrict_1Pager_MASS.pdf)

ExtraOrdinary Districts Podcast: Lexington Part 1 – Secrets of a High-Performing School District (https://edtrust.org/the-equity-line/lexington-part-1-secrets-high-performing-school-district/)

Reducing Overidentification in Special Education and Increasing Student Achievement for All Students

Paul B. Ash, Ph.D.

April 25, 2023

Lexington Demographics

- Lexington is a suburb of Boston. It is an affluent community with a population of 34,454 in 2020.
- In 2021, the median household income was $202,852 and 7.7% of families were low income.
- In 2022, the school district had 6,790 students and 614 teachers.
- The racial composition in LPS was 42.8% Asian, 40.4% White, 3.9% African American/Black, 4.8% Hispanic or Latino, 8.0% Multi-race.
- In 2021, the high school graduation rate was 96.9%.
- In 2021, the per pupil expenditure was $19,699.

https://www.census.gov/quickfacts/fact/table/lexingtontownmiddlesexcountymassachusetts,MA/PST045222

https://reportcards.doe.mass.edu/2022/DistrictReportcard/01550000

Just prior to my start on July 1, 2005, 4 of the 5 central administrators resigned. Their departments were dysfunctional.

KEY PROBLEMS:

- Facilities: Numerous school buildings were in poor condition; the budget lacked sufficient funds to maintain buildings and fix critical infrastructure (e.g., in one school, numerous heating units did not work properly).
- Finance: $550,000 in unpaid bills remained from the prior fiscal year; there was a $1.3 million projected deficit in the current budget.
- Human Resources: 72 of 600 teachers were unlicensed. No systematic processes existed for hiring, rehiring, evaluations, and tenure decisions.
- Curriculum, Instruction and Professional Learning: No curriculum reviews had been conducted for 10 years; significant under-performance for the bottom 20% of students; ineffective professional learning programs.
- Special Education: Out of control hiring of teaching assistants; over-placement of students in special education.

Student Performance: 2007 - 2015

- Changes in the percentage of students in special education, 2007-2015
- Grade 10, special education math results, 2007-14
- Grade 10, African American math results, 2007-14
- Change in African American SAT scores, 2006-14
- Stanford study of US K-12 schools (student performance within a school district was compared with parent income)

Percentage of Lexington Grade 10 Students in Special Education (2007-2015)

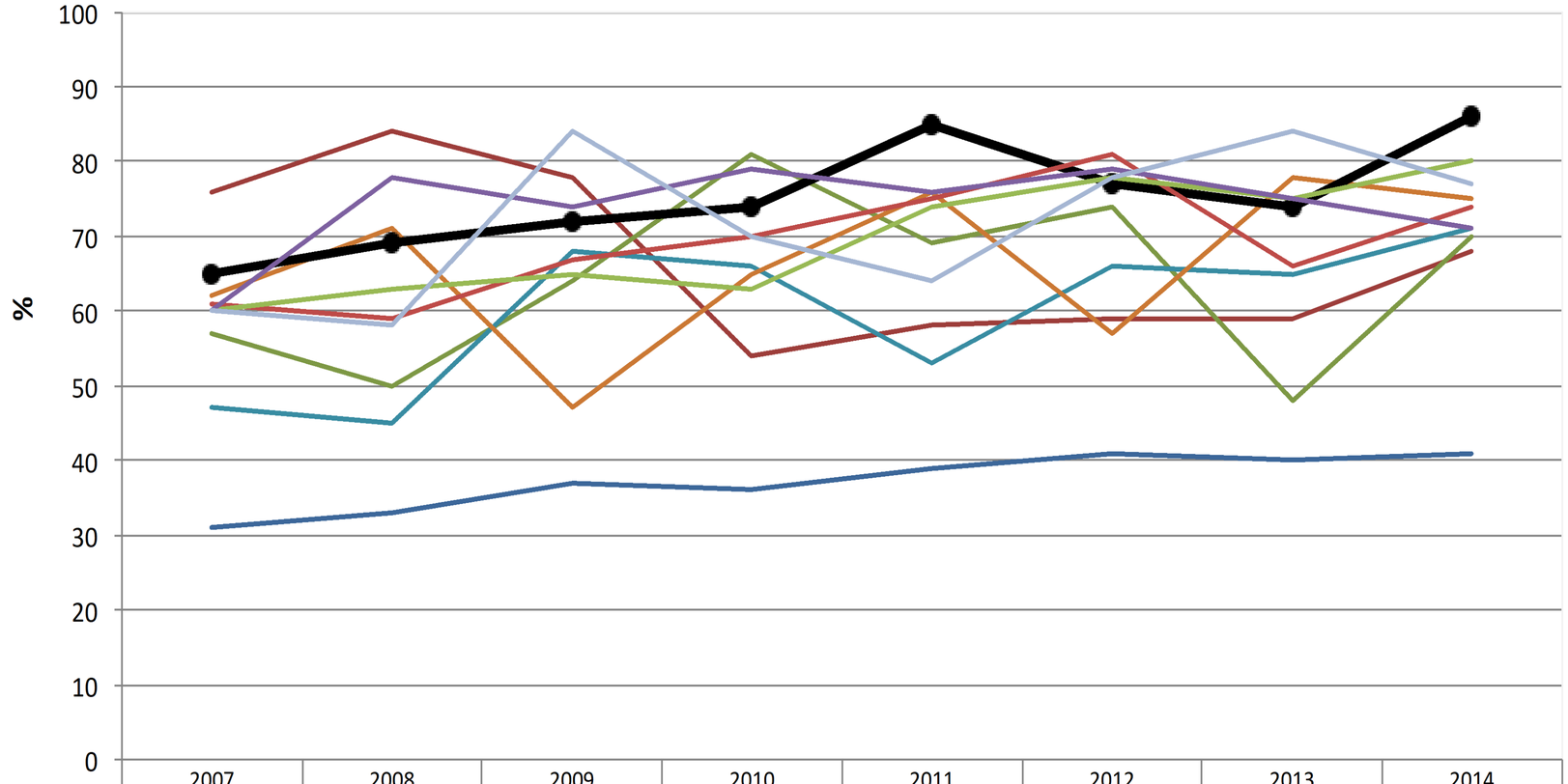
2007	17.0%
2008	18.3%
2009	14.5%
2010	15.8%
2011	14.4%
2012	17.1%
2013	11.8%
2014	13.3%
2015	11.2% (Three-year average = 12.1%)

Percentage decline = 4.9%

(2013/14/15 average – 2007)

Percentage of Lexington Grade 10 Students in Special Education (2015-2022)

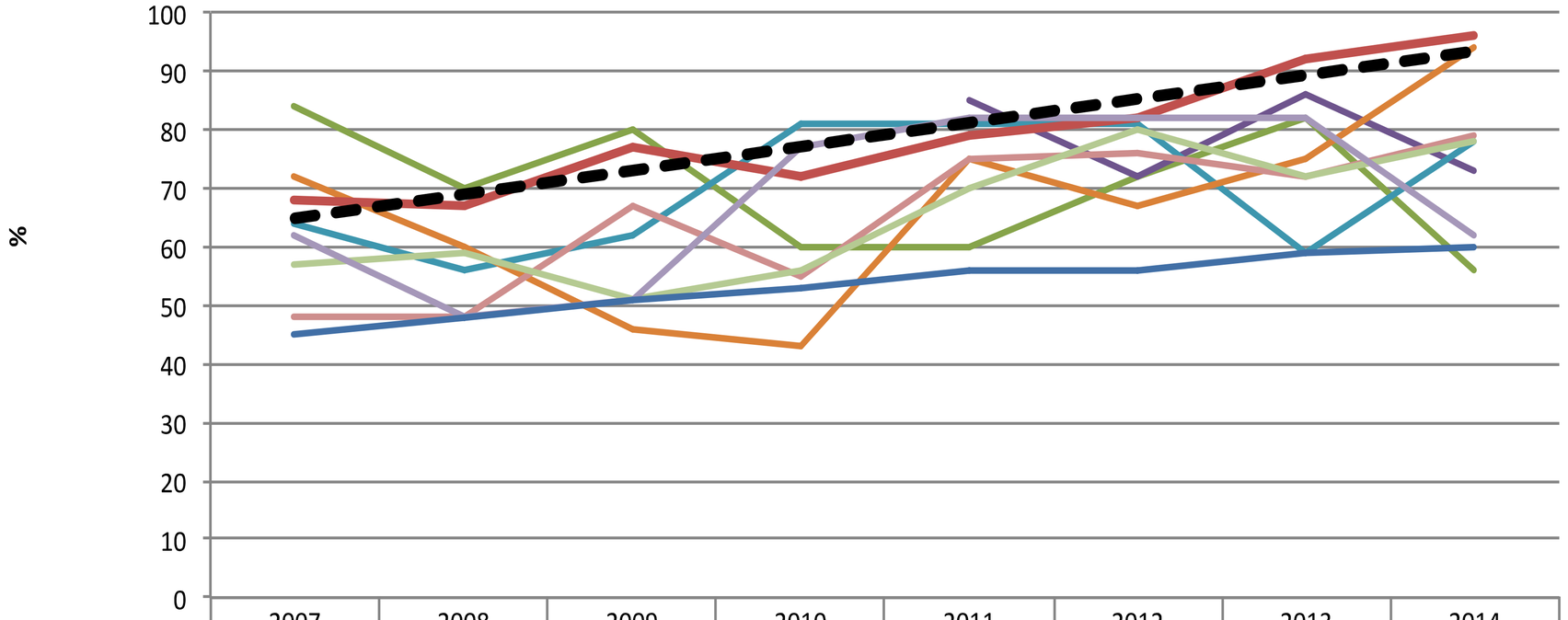
2015	11.2%
2016	11.0%
2017	10.5%
2018	10.9%
2019	13.4%
2020	No tests
2021	13.1%
2022	14.7%



	2007	2008	2009	2010	2011	2012	2013	2014
Bedford	76	84	78	54	58	59	59	68
Belmont	57	50	64	81	69	74	48	70
Brookline	47	45	68	66	53	66	65	71
Concord-Carlisle	62	71	47	65	76	57	78	75
Lexington	65	69	72	74	85	77	74	86
Lincoln-Sudbury	61	59	67	70	75	81	66	74
Newton	60	63	65	63	74	78	75	80
Wellesley	60	78	74	79	76	79	75	71
Weston	60	58	84	70	64	78	84	77
State Totals	31	33	37	36	39	41	40	41

MCAS Mathematics: % Proficient and Advanced Grade 10 Special Education

SOURCE: DESE Statewide reports



MCAS Mathematics: % Proficient and Advanced Grade 10 African American/Black

	2007	2008	2009	2010	2011	2012	2013	2014
Bedford	84	70	80	60	60	72	82	56
Belmont	80		73		85	72	86	73
Brookline	64	56	62	81	81	81	59	78
Concord-Carlisle	72	60	46	43	75	67	75	94
Lexington	68	67	77	72	79	82	92	96
Lincoln-Sudbury	48	48	67	55	75	76	72	79
Newton	57	59	51	56	70	80	72	78
Wellesley	62	48	51	77	82	82	82	62
State	45	48	51	53	56	56	59	60

SOURCE: DESE Statewide reports

SAT Changes from 2006-2014*

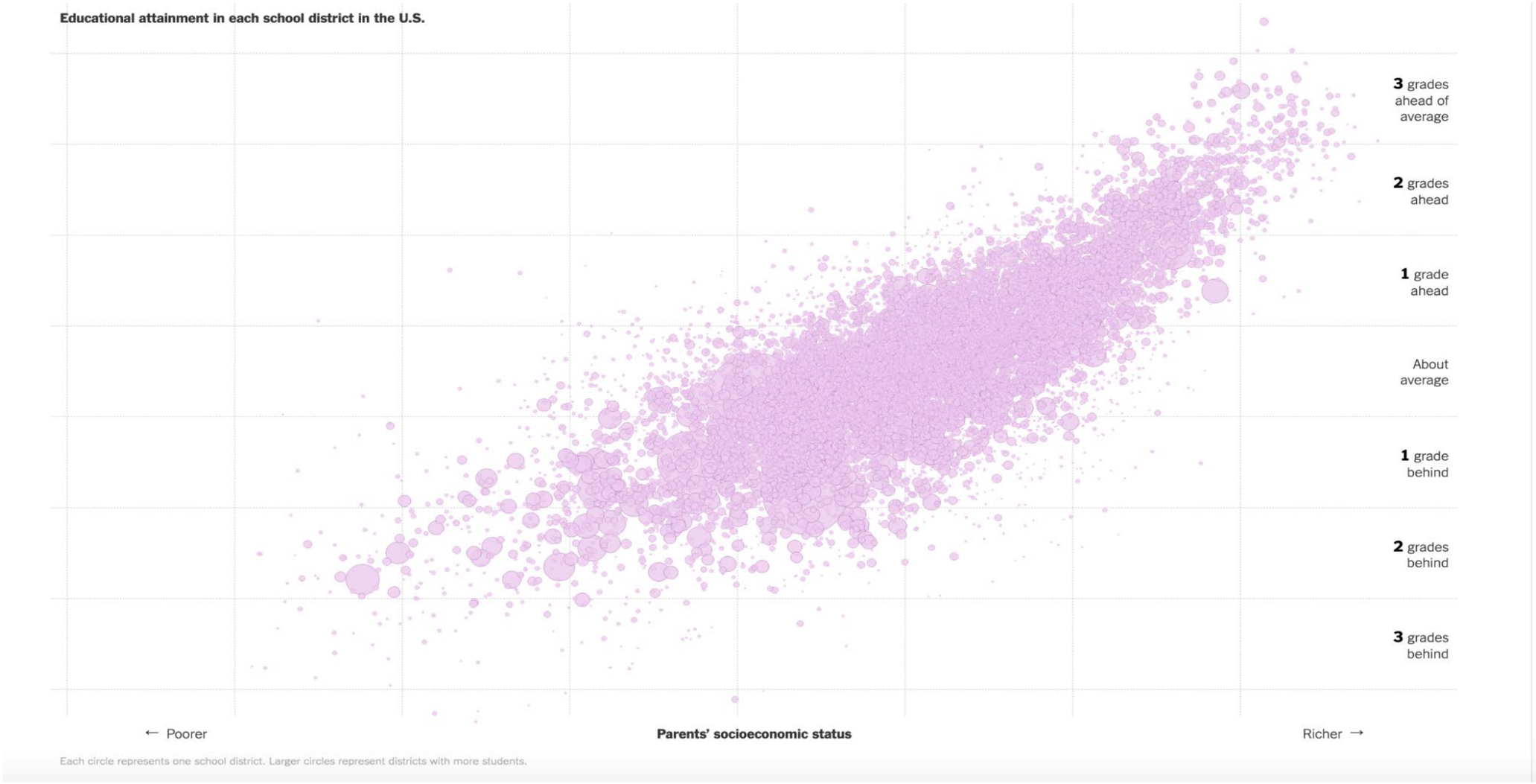
African American +294

All Students +55

*Based on a maximum of 2,400 points

Money, Race and Success: How Your School District Compares

(Stanford University study of approximately 12,000 school districts)



Money, Race and Success: How Your School District Compares, New York Times, April 29, 2016
https://www.nytimes.com/interactive/2016/04/29/upshot/money-race-and-success-how-your-school-district-compares.html

Implementing Lexington's Call to Action

THE PROBLEM:

In 2007, 49% of African American/Black high school students were in special education, and, as a group, performed significantly below White and Asian students (based on state/national tests, high school grades, and academic levels). The METCO Director told the superintendent that she believed that most METCO students did not have a disability.

KEY ACTION STEPS (FIRST FEW YEARS):

1. We examined the first IEPs for METCO students in order to identify why such students had been placed in special education, and in which grade.

2. I hired the retiring union president to conduct a comprehensive report (*See LaMura report*).

Quantitative Findings in the LaMura Report

- On the state assessment test (MCAS), significantly more White and Asian students scored at proficient or higher than African American and Hispanic students.
- The data showed that comparable METCO communities also have significant achievement gaps between White/Asian students and African American/Hispanic students.
- A significantly higher percentage of the METCO students in grades 1 and 2 received scores showing the need for special intervention in math and English language arts.
- METCO students were significantly under-represented in Honors/AP courses as compared with White and Asian students.
- 48.6% of METCO high school students were in special education. 33% of K-12 METCO students were in special education and 17.3% of all students were in special education.

Qualitative Findings in the LaMura Report

FOR STUDENTS WHO STRUGGLE:

- Inadequate system supports for struggling students
- Teachers communicate low expectations
- Students' and parents' low expectations
- Ineffective/insufficient use of data to drive instruction
- Over-reliance on special education
- Weak literacy skills (especially vocabulary and composition)
- Lack of mentors/role models for students

(Based on teacher surveys)

- Student lack of effort and attentiveness
- Student belief that school is not a number one priority
- Insufficient time to do schoolwork
- Ineffective teaching styles and strategies

(Based on student surveys)

Implementing Lexington's Call to Action: Key Action Steps

3. Mr. LaMura and I held meetings in every school to discuss the results of the LaMura report.

4. In 2008, we established the K-12 Achievement Gap Task Force (AGTF) with teachers, administrators and parents. The AGTF met monthly for years.

5. We visited and researched schools that had significant success raising achievement for students of color, low income students and special education students.

6. The AGTF started its work by writing a detailed four-year action plan that identified specific strategies to close achievement gaps and build Tier 1 through 3 capacity. (See initial four-year plan)

7. The AGTF frequently communicated with all staff, board members and the public, and set up times for constituencies to share their ideas, recommendations and concerns.

Implementing Lexington's Call to Action: Key Action Steps

8. LPS hired its first K-12 Director of Professional Learning. We also redesigned our professional learning program to focus on student learning and student outcomes all year long. We encouraged great ideas to come from all directions (bottom up and top down) to expand teacher capacity and collective capacity, based on identified best practices and student needs.

Professional Learning - Three theories of action:

Creating a new professional learning model

Building collective teacher efficacy

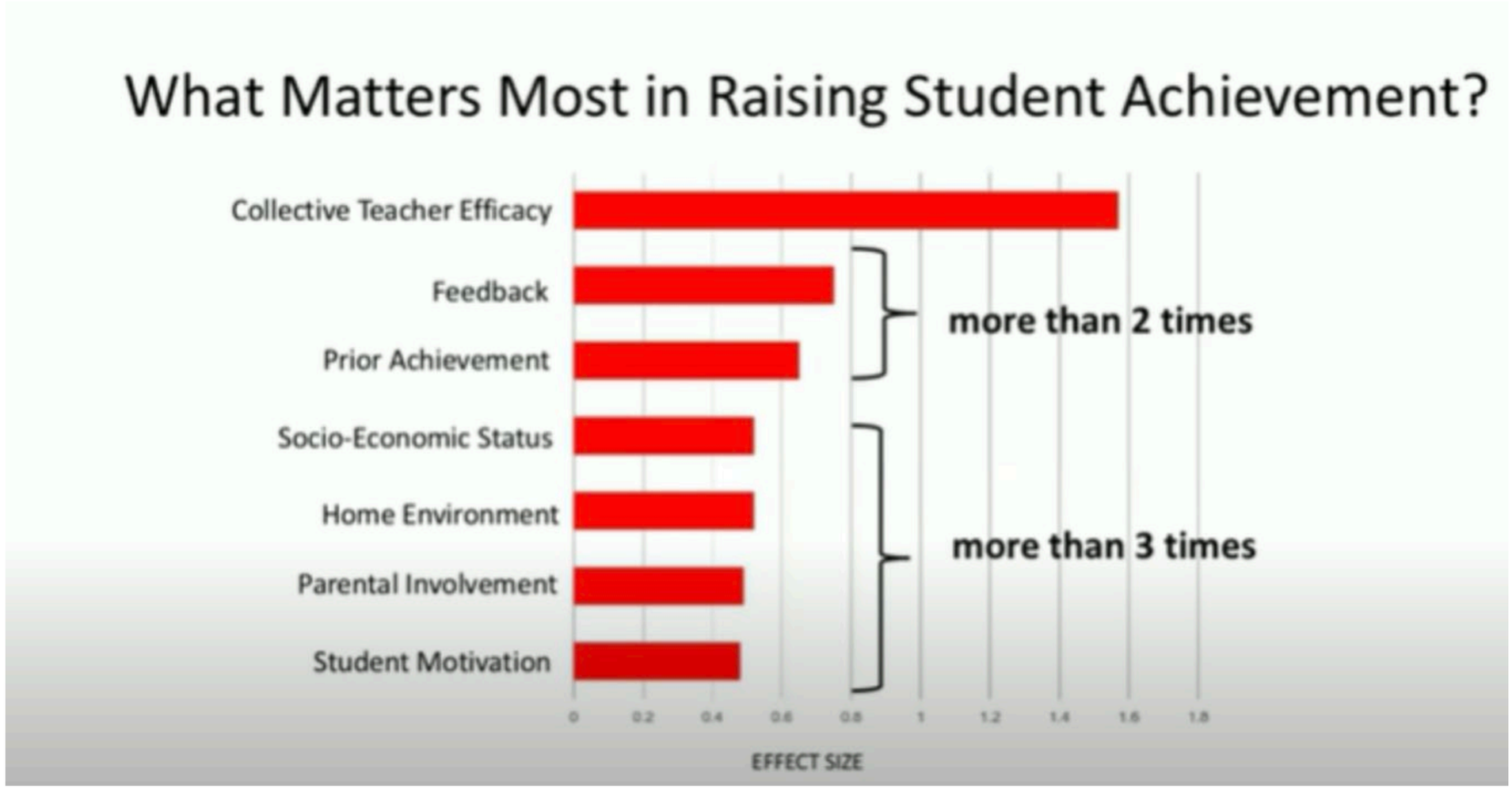
Supporting teacher leadership are necessary components to reduce overidentification in special education and increase academic performance for all students

A New Professional Learning Model

- Professional learning programs were designed to meet LPS student academic and social needs.
- Multi-day programs generally required teacher practice and feedback.
- College courses for salary credit must be pre-approved and show how requested courses will lead to improve student learning and/or improved professional practice.
- Teacher collaboration time is built into the schedule.
- High levels of feedback in all direction (Effect Size = 0.73, Hattie in 2009).

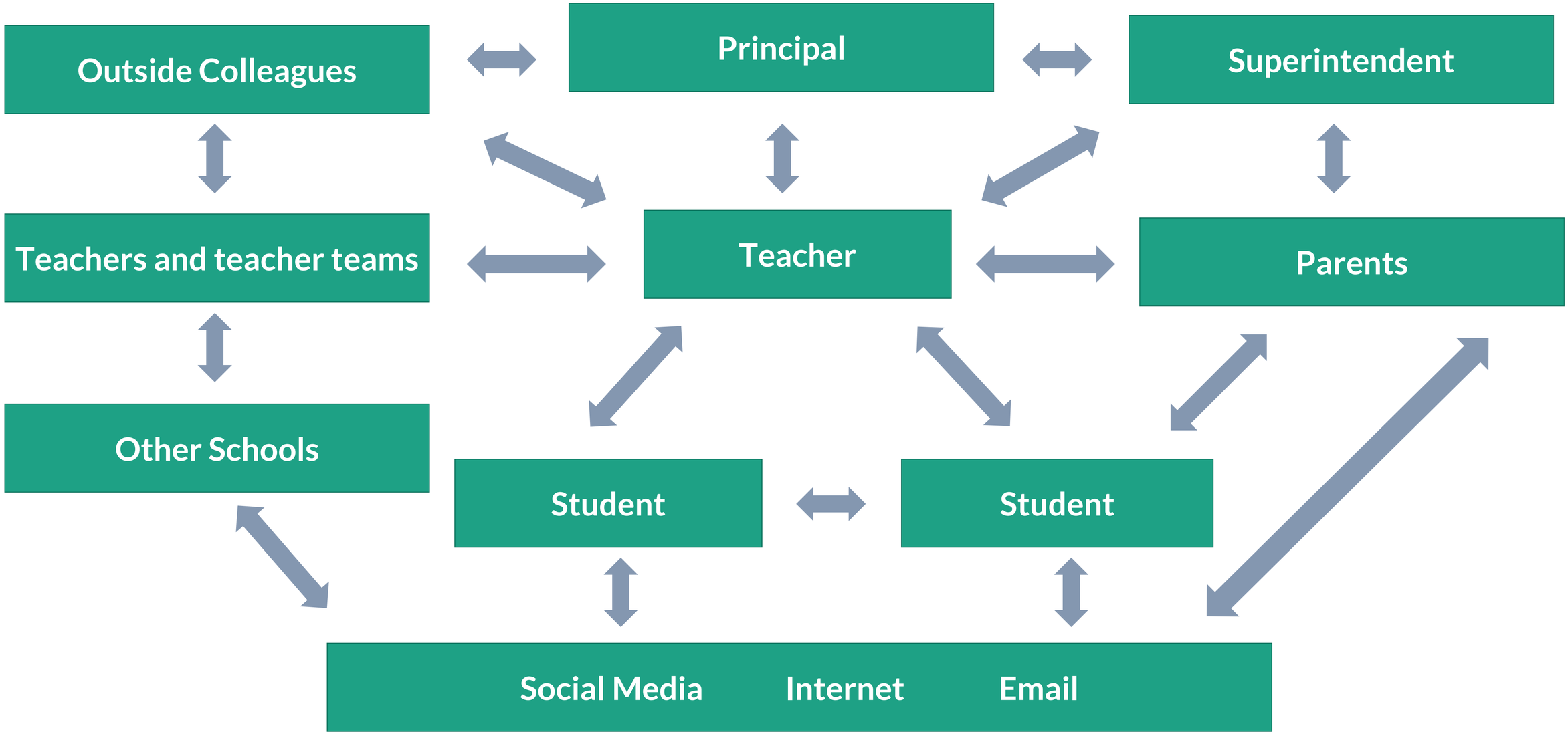
An effect size above 0.4 is above average for educational research

Focused on student learning and student outcomes that is **coherent, consistent, systemic, and sustained.**



The mean effect size for Collective Teacher Efficacy is 1.57, John Hattie
https://visible-learning.org/2018/03/collective-teacher-efficacy-hattie/

Collaboration in All Directions



Administrators must support and advocate for teacher leadership, at all levels (PreK–12)

Teachers who aspire to become formal leaders

Teacher leaders

Implementing Lexington's Call to Action: Key Action Steps

9. Beginning in year 2, all schools were required to annually develop multi-year, measurable goals and action plans that would strengthen Tier 1 teaching, assessment, student learning, and intervention strategies.

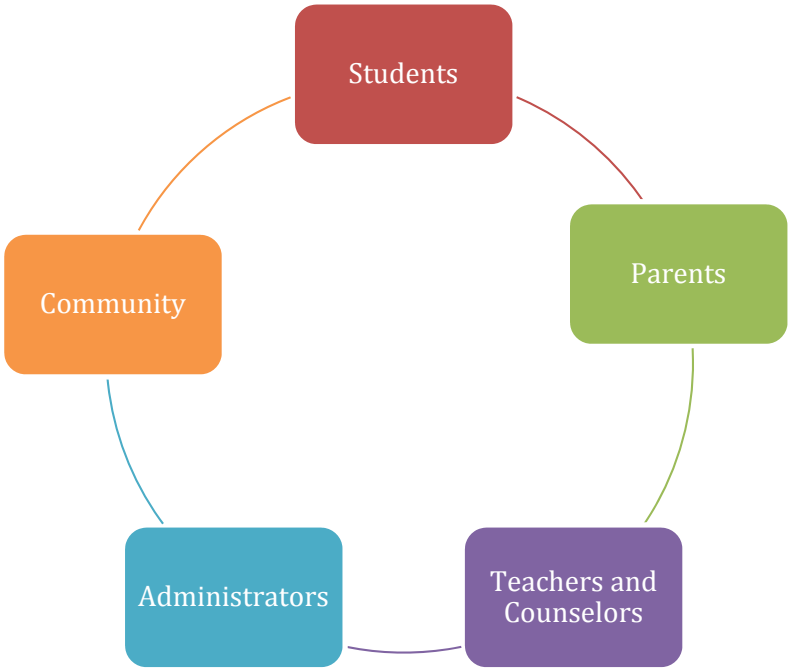
10. Beginning in year 2, schools began creating new TIER 1 through 3 initiatives that increased both student learning and reduced the percentage of students in special education. For example – Tier 1: expanded time for K-5 literacy & math instruction, created intervention blocks (K-12), instituted common teacher planning time (K-12), added K-12 literacy and math coaches); Tier 3 (*See 2007 proposal to the Lexington School Committee*).

11. In 2015, LPS hired a team of Harvard University researchers to examine LPS results. The report states, **"We find that Lexington has raised achievement among African American students as well as in the district overall."** (See Ferguson report)

Ferguson, Ronald and others, Narrowing Achievement Gaps in the Lexington Public Schools, Cambridge, MA, 2015, page 2

Questions?

Narrowing Achievement Gaps in Lexington Public Schools



June 2015

Prepared by:

Ronald Ferguson

Ann Ballantine

Rachel Bradshaw

Charlotte Krontiris

Table of Contents

Introduction **1**

1. The Impetus to Change **3**

The State of Play in 2005 ..... *3*

A New Direction *4*

The LaMura report *6*

2. Implementing the Call to Action **7**

The Timeline for Change *7*

Doubling Down: 2011 and On *10*

Lessons on Organizational Change *12*

3. What the Data Show **14**

Scaled Scores and Proficiency Rates *14*

Student Growth Percentiles *23*

Whole District MCAS Data *24*

SAT Scores *30*

4. Investing in Supporting Achievement for All Students **32**

Theory of Change *32*

"Raise All Boats" *33*

Curriculum Reviews *33*

Professional Learning Communities (PLCs) *34*

Response to Intervention (RTI) *37*

Professional Development *38*

Finding More Time for Student Learning *39*

5. Developing Cultural Competence **45**

Recruiting Administrators and Teachers *45*

Training Administrators and Teachers *46*

Engaging Parents *46*

Conclusion **48**

Appendices **50**

References *51*

The Research Team *52*

List of Interviews *53*

Introduction

Between 2008 and 2015, Lexington Public Schools carried out a far-reaching plan to close the achievement gap between white and Asian students, and black and Latino students, many of whom attend Lexington schools as part of the METCO program. METCO brings students from Boston to study in Lexington and other suburbs from kindergarten through high school. The change effort has targeted instruction, professional development, and METCO support programs, spurring major changes in how Lexington's teachers teach and students learn.

By the spring of 2014, 96 percent of the district's African American tenth graders scored proficient or advanced on the math section--and 100 percent on the English Language Arts (ELA) section--of the Massachusetts Comprehensive Assessment System (MCAS) exam. Understanding this achievement for African American students is the inspiration for this report and is its major focus.

Superintendent Paul Ash approached the Achievement Gap Initiative (AGI) at Harvard University around 2007 as the work this report examines was just beginning. Not long afterward, Ash and his colleagues participated in a June 2008 conference that the AGI convened on successful school districts. Ash told the audience about the difficulties that he knew were ahead, saying "the toughest [challenge] of all is the human side. Because as soon as you begin to initiate change and try to transform an organization, there will be significant pushback. And so a year into this, you're going to have a whole lot of people who are angry at you." Montgomery County, Maryland was a featured district at that conference, and Ash would soon send a delegation from Lexington to visit. The impact of that visit is addressed in this report.

Almost eight years after first calling the AGI, Superintendent Ash called again with an invitation to take stock of what has been accomplished regarding African American achievement in particular and whole-district change more generally. The result is this report, conducted during the spring of 2015. AGI researchers analyzed MCAS and SAT data from 2007-2014. Structured questionnaires were used to conduct in-person and phone interviews with 40 teachers, administrators, METCO staffers, and parents, all of whom were actively involved in researching, planning, or implementing the transformation work. The questionnaires and interviews were tailored to reflect each person's role. An online open response survey was used to collect METCO students' perspectives on their experiences in the Lexington Public School System. Researchers also reviewed relevant documents.

This report documents the change process and assesses its effectiveness. **We find that Lexington has effectively raised achievement among African American students as well as in the district overall.** The gains appear to be the accumulation of gradual improvement. Students of color are making greater progress than before in elementary and middle school years, contributing to higher proficiency by tenth grade.

Lexington's reform efforts have spanned the whole district, touching every school. District-wide instructional changes have cultivated deep collaboration between teachers; targeted interventions through the effective use of student data; and built a home-grown, but exceptionally deep, professional learning program. Working closely with METCO staff, schools have also expanded learning time with innovative in-school scheduling and after-school programming. Committed leadership at all levels and resourceful funding strategies have sustained these efforts through budget cuts and organizational conflict.

This report is divided into five chapters. Chapter one, **The Impetus to Change**, recounts why Lexington decided to embark on this transformation, focusing on a leadership vision and the catalytic power of data widely shared. Chapter two, **Implementing the Call to Action**, tells the story of organizational change at Lexington Public Schools. Chapter three, **What the Data Show**, analyzes African American student performance data and whole-district data to determine whether the new programs and practices moved the dial on student achievement. Chapter four, **Investing in Supporting Achievement for All Students**, details specific initiatives at all grade levels and examines their effectiveness. Chapter five, **Developing Cultural Competence**, describes Lexington's ongoing efforts to better serve students and families from all backgrounds. We also include an appendix that contains a list of the people we interviewed, METCO middle and high school student survey responses, and reference material used as background.

1. The Impetus to Change

The State of Play in 2005

Lexington has long enjoyed a reputation for being one of the strongest school districts in Massachusetts. But this reputation masked serious hidden achievement gaps for some student groups. In all grades, all subjects, and all schools, Lexington's African American and Hispanic students were performing at a significantly lower level than their white and Asian peers.

As Vito LaMura would later report, by the mid-2000s Lexington had persistent gaps between subgroups' Massachusetts Comprehensive Assessment System (MCAS) scores for English Language Arts (ELA) and math for students grades 3 through 8 and grade 10. District assessments suggested the pattern reached back to first and second grade, as well. Because of the demographics of Lexington-resident and METCO student populations, these disparities amounted to a district-wide achievement gap between METCO students, most of whom were African American or Hispanic, and Lexington-resident white and Asian students. And the bad news didn't stop there. METCO students were also overrepresented among SPED students and underrepresented in the high school's advanced classes of leveled courses.

Lexington's problem was not unique. Like many other suburban, high-performing school districts participating in the METCO program, Lexington served students who started school with very different levels of preparation. "There are extreme disparities in extra resources available to students," a longtime teacher observes. "Many [Lexington resident] students can get loads of resources, like private tutors working for more than $100 an hour and evening or summer classes. At the other extreme, we have students who -- the only math learning they'll get is what they get from the school. We've tried our hardest as an institution to be most equalizing force we can be."

Yet at that time, many in the district did not understand the extent of the gap. Individual educators observed that some students were lagging behind their peers, but district leadership tended to look at data in the aggregate. "Before, they looked at the total student performance," remembers one teacher. "It wasn't obvious who or which groups were not doing well."

As a result, for the past decade or more efforts to achieve equity had not met with success. The high school's math department was a notable—but not well-known—exception. Dynamics inside the school district tended to exacerbate the problem. Academic practices like

leveling and weighting GPAs sometimes fostered negative beliefs among faculty and staff. According to one teacher, "We were explicitly telling students that we value honors work more than CP [College Preparatory] work." Organizational flux also undermined the programs and policies Lexington did implement. "Actually, there [had been] a huge investment in anti-racist education," a longtime teacher recalls. However, changing leadership weakened these investments. "We had a succession of interim and short-lived superintendents," another teacher explains. "There were many shifts in direction." Ironically, Lexington's proximity to research powerhouses like Harvard may have contributed to programmatic instability. "For decades, new things were being tried out and people were trying to experiment," a teacher and LHS graduate says. "We had an open campus 50 years ago, before anyone was doing that…There's been lots of change and lots of friction." As a result, many initiatives ran out of steam. "[They] simply went away over time." Educators would ask each other, "Whatever came of all the work we did? I'm not quite sure."

A New Direction

Paul Ash arrived in Lexington as the new superintendent in 2005, committed to equity and excellence. "Not just talking about it, but really making it happen," remembers a faculty member at LHS. With 26 years of central office experience, Ash had been hired to address a crisis in leadership created by years of instability in the district: a $1 million budget deficit, high administrative staff turnover, and siloed teaching.

Ash entered his new role enthusiastic about collaborative teaching and raising all student achievement. But it was the SPED referrals that galvanized him. In 2007, he learned that METCO students were being referred to special education at three times the rate of their peers. The numbers shocked him, all the more because referral rates varied widely from school to school for no discernable reason. "It didn't make sense," remembers another faculty member at LHS. "Families have to be committed and make sacrifices to send a kid from Boston to Lexington every day." Nor did the district entertain the idea that innate disparities were at work: whatever was going wrong, it was happening at school, in the classroom. Why was the program failing its students and families? Ash posed this question to Vito LaMura, a former Diamond Middle School teacher and the president of the Lexington Education Association. LaMura was just months away from his retirement, but in August 2007 he was tasked by Ash to look for some answers.

As LaMura researched Lexington's internal dynamics, external forces were also pushing the district towards change. No Child Left Behind (NCLB) and the ever-blowing winds of education reform were placing a growing emphasis on data; as a result, information about the gap had begun circulating in the district. A year or two before LaMura's report, a high school dean had also shared some research on student learning trends at LHS with the principal and with Ash. More urgently, in 2007 African American students in grades 3 through 5 did not make state or subgroup Adequate Yearly Progress (AYP) ELA performance targets, raising concerns about school and district accountability status under NCLB. In 2008, low income and special education students also not making ELA and math AYP for those grades, added to the urgency.

Accountability under NCLB presented a powerful motivation to act. "The superintendents of the eighties and nineties did not have the advantages and pressures that superintendents have now," one faculty member explains. "Data and the focus on standards and assessment just weren't there." At the state level new education policies prompted change, too. The Common Core, in development nationally since 2008 and adopted by Massachusetts in 2010, offered the district an opportunity to retool teaching and testing in a concerted way. The same was true of public debate about a new teacher evaluation system. Although the new system, implemented in 2012, has been controversial in the state, in Lexington it would end up supporting new instructional strategies by "help[ing] teachers set and focus on goals," according to one Lexington principal.

One state policy was not so helpful. In 2008, Massachusetts started cutting METCO funding after several years of increases. With the Great Recession contracting budgets across the state, METCO saw its state-wide funding shrink from $20.2 million to $16.5 million. Lexington, like other participating districts, would have to find more money for the program within their school budget. If Lexington was going to put more resources towards METCO, it wanted assurance that the program was working as best it possibly could. (The METCO budget now stands at $17.9 million, and Governor Baker has proposed a budget of $19.1 million in 2016, as originally slated in 2015.)

Yet despite these cues for change, by the end of 2007 no broad movement had taken root in the Lexington schools. "It's hard to convince people in a high-performing district to change," says one principal. "There [was] no sense of urgency here, no sense of how much change we

need[ed]." Like the rest of Lexington and even METCO parents, faculty and staff took comfort in the belief that "we're a great district and we do great things."

The LaMura report

The public release of LaMura's findings was a turning point for the district. LaMura had approached the research "in an open-ended way," looking at student assessments and talking to METCO parents and students, faculty, and administrators. In January 2008, he submitted a 60-page report that documented large and pervasive disparities and gave voice to deep frustrations.

It was a lot to take in. "In general, people have a sense here that kids are high performing," one administrator remembers. The information LaMura presented provoked consternation and doubt. "When Vito's initial report came out, that might have been a bit shocking," remembers one teacher. "People's reaction, as usual in such cases, was some denial and outrage—*How could that be?*—and some *What are we going to do about it?*"

Ash and LaMura were ready with responses to both questions. The report opened with extensive analysis of student achievement data, "a credible presentation of the problem," one interviewee remembered. The data proved far more compelling to readers than a simple litany of "innovations, solutions, and reforms" and disarmed natural, defensive reactions. "Massive reports like that…can sound to teachers like, *You're not doing your job*," one person remarks. "But this one crystallized tangible information, data on test scores and such, in an honest and real way that made it easier for educators to wrap their heads around it. It was presented in a palatable way and helped us focus on baby steps we could take."

The LaMura report documented just such "baby steps"—and some adult ones, too. LaMura synthesized extensive research on successful gap-closing measures and put forth a cogent set of 19 recommendations, three of which were immediately actionable. Now the LaMura report stands as "a pivotal point" in district memory. "Building a sense of urgency…is different from a sense of panic," another observes. The LaMura report represented an opportunity to generate urgency across the entire district. But what change this urgency would bring about still remained to be seen.

2. Implementing the Call to Action

The Timeline for Change

Lexington now faced two questions. What needed to change in order to close the district's achievement gap, and how could that change be effected?

Ash believed that Lexington could not raise achievement without changing instruction. Influenced by research about collaborative teaching, the new superintendent had already introduced two PD initiatives that had not yet lived up to his hopes. Action Research, launched in 2006, discomfited many teachers because it departed sharply from existing PD norms and was not backed up by adequate training and resources. Professional learning communities (PLCs) were launched in 2007, and it remained to be seen whether they would take root. How could this time be different?

Forming the Achievement Gap Task Force / Equity and Excellence Committee

One of Ash's first actions was to form an Achievement Gap Task Force (AGTF) that would research and propose a multi-year plan to close the gap. LaMura had recommended this action, and he now agreed to serve as co-chair with Steve Flynn, former principal of Clarke Middle School. The task force brought together teachers, administrators, and counselors from all 9 schools and METCO parents and staff. "The focus was taking stock of what initiatives were even going on in the district," one participant recalls. They talked about what they were noticing in the classroom, "ideas, successes, and failures."

Forming the task force was not painless. One AGTF member did not know she was on the committee at first, and others were frustrated to be left off. Participants with lower positional authority sometimes held back ("I wasn't vocal, though I was very interested," one such person remembers). Even the name was controversial. It was later changed to the Equity and Excellence Committee or EEC, positioning its mission for the benefit *all* Lexington students.

But these were only growing pains. As an entity staffed by people from all over the district, the EEC gave reality to Lexington's new-found urgency. Here was a platform for real work, to which everyone with his or her different experiences and perspectives could contribute.

Visiting Montgomery County

The LaMura report felt like a tipping point to many people. The phrase "tipping point" suggests one moment in time that fundamentally shifts the action, but this is not how things happened in Lexington. Instead, the district experienced a series of pivotal moments, experiences of surprise, discovery, excitement, or conflict that reenergized people and lent them a new sense of purpose.

For the EEC, the next such moment was a visit to Montgomery County, Maryland in 2009. District leaders had heard of Montgomery County's success in closing their achievement gaps at the Harvard Achievement Gap Initiative 2008 Conference, and Ash sent a team of 30 teachers and administrators on a three day tour. Montgomery County was using PLCs and data to improve instruction in ways that Lexington's teachers had not seen before. Teachers were using real-time data to drive instruction in exciting new ways, like online assessments with instant feedback for students and teachers. It was "exciting," "astounding," "overwhelming." "Montgomery County could look at kids over time," one visitor marveled. "The data teams were talking the same language across 25 schools. They were using the same assessments. Fifty-five thousand kids, and the language was consistent across the board. It blew us away."

The visitors were also impressed by Montgomery County's curricular coordination. "The district was ahead of the curve in terms of standardizing and uniformity," a teacher recalls. "They were proud to say, *Go into any 7th grade math class on a Tuesday, and the same thing is happening across the district."* Another admired that "they were clear on goals and consistent on messages."

The Montgomery County team came home energized and reported out to each school about what they had seen. Their presentations made a major impact. "After Montgomery County there was a real shift to use data to drive instruction," one remembers. "There were some wonderful outcomes on a departmental level," another says, like "forcing the issue of how all students should be learning more or less the same content, though teachers should have autonomy and flexibility in how they get students to experience that content."

These ideas did not all go down easy. Many teachers were concerned about losing their autonomy, or about letting data collection distort instruction. But the trip to Montgomery County had created a core group of evangelists, people who were motivated by a transformational experience and who could be credible to their more skeptical colleagues.

Repositioning METCO Lexington

The visit to Montgomery County would prove pivotal in Lexington's efforts to improve instruction, efforts we explore in chapter four of this report. But as the schools intensified their work, METCO Lexington was planning its own reinvention.

For a long time, METCO and the Lexington schools had enjoyed a clear division of labor. The schools were responsible for students' academic progress, and METCO was responsible for their social and emotional support. In part, this separation was intrinsic to the program: METCO staff were social workers and counselors, not teachers. But it was also a matter of attitude. "We weren't fully integrated into the school," one METCO employee says. "There would be a school wide PD program, and we wouldn't be invited. It was just an oversight, but what did that mean?"

Hiring new leadership for METCO was another tipping point. When Paul Ash promoted Barbara Nobles to head the program in 2010, they agreed the relationship between METCO and the schools needed to change. It was a meeting of the minds. "Dr. Ash wanted more emphasis on the academics," and that was Nobles's "personal mission." Her title was amended to METCO *Academic* Director, a "change in title [that] lent itself to…holding people accountable." Nobles and her staff started monitoring student academic progress more aggressively and working with principals, professional staff, and parents to advocate for education supports. Years later, teachers, parents, and school administrators speak glowingly of her leadership.

A key part of this program was the relationship between METCO families and the Lexington schools. "So many people think METCO is about what the Boston students get from the program. That is part of it, but I wanted people to understand that we bring a lot to any school district that we are part of." Nobles and her staff worked to change this attitude from both ends. With parents, METCO led workshops about "what they were contributing to the education of their children" and in Lexington, "moving [beliefs] from a deficit model to a strength model." METCO's monthly meetings used to draw around 30 parents but now regularly draw 85.

Confronting Conflict

By 2011, Lexington had initiated several major new programs and completely overhauled professional development. These changes affected instruction in every classroom, and many teachers resented the loss of autonomy. "Morale exploded," one administrator remembers. According to a longtime teacher, "the more senior teachers felt [the change] was an assault on

their professionalism. There was a real divide between the old guard [and those pushing the new approach]."

Compounding these frustrations was a clash of personalities. Ash's "relentless" leadership was rubbing some people the wrong way. Some in the district felt disrespected by the way reforms had been carried out. "It was really top-down." In addition, with all of the focus on improving instruction, some support staff felt shut out by the district's leadership.

As tensions rose, the district decided to address the problem head on. With the help of project consultant Bruce Wellman, a committee of teachers and administrators conducted an extensive climate study of the schools "to identify areas of concern and propose appropriate actions to improve professional relationships." The result was a 23-page public report examining employees' complaints and potential responses. Following the report, the district created a climate wellness committee to administer a school climate survey to all district employees, with results reported to the school committee annually. In addition, district leadership and the Lexington Education Association did trainings separately and together to rebuild their working relationship.

The Wellman report marked another tipping point for Lexington. Teachers who were dissatisfied with district leadership now say that climate and communication have improved. Some teachers did leave. But "we have developed a critical mass of teachers willing to make changes," a department head says. "Not every teacher is 100 percent even to this day, but all departmental momentum is pushing in that direction."

Asking more than 700 employees to air their grievances, as the Wellman report did, can never feel like a safe move. Bad morale is an existential threat to any program of change. But the Wellman report did more than neutralize that threat: it turned the conflict into an opportunity for professional growth.

Doubling Down: 2011 and On

By 2011, most parts of the EEC's original action plan had been implemented or were underway, and the district had begun to see some movement in student achievement. Although the district was still working to address morale issues, Ash and others felt that a basic "mind shift" had taken place. Now the question on everyone's mind was: How do we keep this going?

"There's a fine line between continuous improvement and initiative fatigue," one administrator observes. Even teachers who were excited about the changes and people who had

served on the EEC worried that the district had too many irons in the fire. The issue came to a head during "a very candid meeting" in 2011 when an educator voiced the opinion "that they were doing too many things and lacked focus." Ash agreed that it was time to go deeper into existing programs and avoid adding new ones. On a whiteboard, he wrote down all the district's initiatives and then grouped and prioritized them. As a result of this meeting, PLCs emerged as an overriding priority for improving instruction.

Deepening investments in PLCs and other initiatives required resources, and the district worked diligently to provide them amid recession-driven budget cuts. "[Ash] is a wonderful administrator in the commercial sense of the word," one teacher says. When professional development funding was cut, faculty and the LEA found grant money to keep it going. Securing adequate resources remains an ongoing challenge: this past year, for example, a METCO funding cut resulted in the cancellation of Lexington's late bus. Students couldn't participate in after school academic programs, like the homework club at LHS, or attend sports practices. "[Losing the late bus] affected my academics because I didn't have enough time with my teachers," one student says. "My learning process was slowed down a lot, in some cases getting me behind." Another student reports taking a two-hour MBTA ride home every day, which created a financial burden because "I don't have a job, so money became an issue." After seeing METCO high school students' grades decline, the district recently found the money to bring back the late bus.

Leadership's commitment to funding has had a waterfall effect. "The district puts money behind its initiatives," one administrator says approvingly. This money not only keeps the programs running but also communicates to everyone involved a set of values and sense of purpose. "This is what translates big initiatives into budget requests and day-to-day changes for children," one faculty member says. "Day-to-day changes could only happen with everyone up the food chain saying *This is important, and we're going to devote resources to giving students what they need.*"

Lessons on Organizational Change

Division of labor

"The key to success is that the superintendent has brought all the necessary people together and then dispersed them to the nine schools," one administrator says. "Even though we each do things in our own way, we all do the same things."

The division of labor for implementing change was motivated by two leadership principles. First, the overarching commitment to collaboration and coordination. From the EEC to data teams, "there's been huge push from administration for people to get on same page." At the same time, Ash established himself as an effective delegator and encouraged others in the district to do the same.

Teachers did not always wait for permission to act, but pushed for change on their own. For example, a special education teacher at the high school observed that the homework club was focusing too narrowly on completing homework. Drawing in part on the LaMura report as a common reference across the district, she presented a report to LHS and METCO leadership, proposing a new direction for the club. They tasked her with carrying out her own recommendations.

Leadership at all levels

There is no level at which good leadership is not important. Ash himself recognized this fact and made "Leadership at all levels" one of his organizational goals. As superintendent, he pursued it aggressively, hiring 70 of the district's 72 current administration staff, including all nine principals. By themselves, a crack team of administrators would not be able to effect meaningful change. Lexington's efforts have been successful because teachers and support staff have also stepped up as leaders, beginning with Vito LaMura. Afterwards, even as the district was looking outwards to places like Montgomery County for inspiration, it also looked inwards to people like Gary Simon, head of LHS's math department, to elevate innovative instruction that was already closing Lexington's gaps.

This blended leadership has been partly a matter of culture—the story of the high school special education teacher is one example. But where possible, teachers and administrators have worked to structure their partnership. For example, several times teams of teachers have gone to study promising methods in other districts. If they think it is a good idea, then it happens.

Within the district, Lexington faculty now also develop and teach major components of their own professional learning curriculum.

Longevity

Organizational change on the scale Lexington sought is tremendously difficult, and one of the hallmarks of Paul Ash's leadership has simply been his longevity. Before he arrived, all four central office staff had just resigned. With a natural annual attrition rate of between 7.5 % and 8.25%, Ash had the opportunity over his ten years to replace almost the entire administrative staff.

He was "a leader willing to go down this road." Along the way the district has overcome many challenges, but it has also simply outlasted them. "It takes time," one longtime teacher says. According to another, "Paul's initial couple of years, he met with lots of pushback and had to learn how to be successful. This is because he's talented, but also because he stayed long enough. Others have equal ability but had not endured the misery of the first few years."

Ash isn't the only person who endured. Many, many teachers and administrators tried things that didn't work and felt like they were losing ground—but kept on going anyway. "The tough thing is, you need to be willing to get egg on your face," one teacher says. For all that resources have mattered to Lexington's success, the district's resilience has been "priceless."

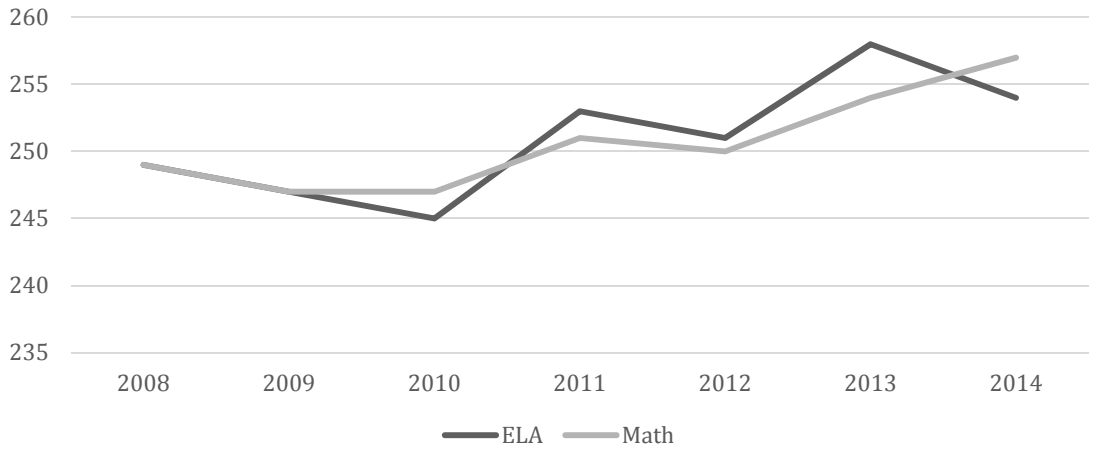
3. What the Data Show

In the spring of 2014, 96 percent of African American tenth graders in the Lexington Public Schools were proficient in math and 100 percent were proficient in English Language Arts (ELA). Our focus in this chapter is on the following question: *How plausible is it that these high proficiency rates for tenth grade African American students is due to the plan that Lexington began implementing to close achievement gaps when these tenth graders were still in elementary school?*

Scaled Scores and Proficiency Rates

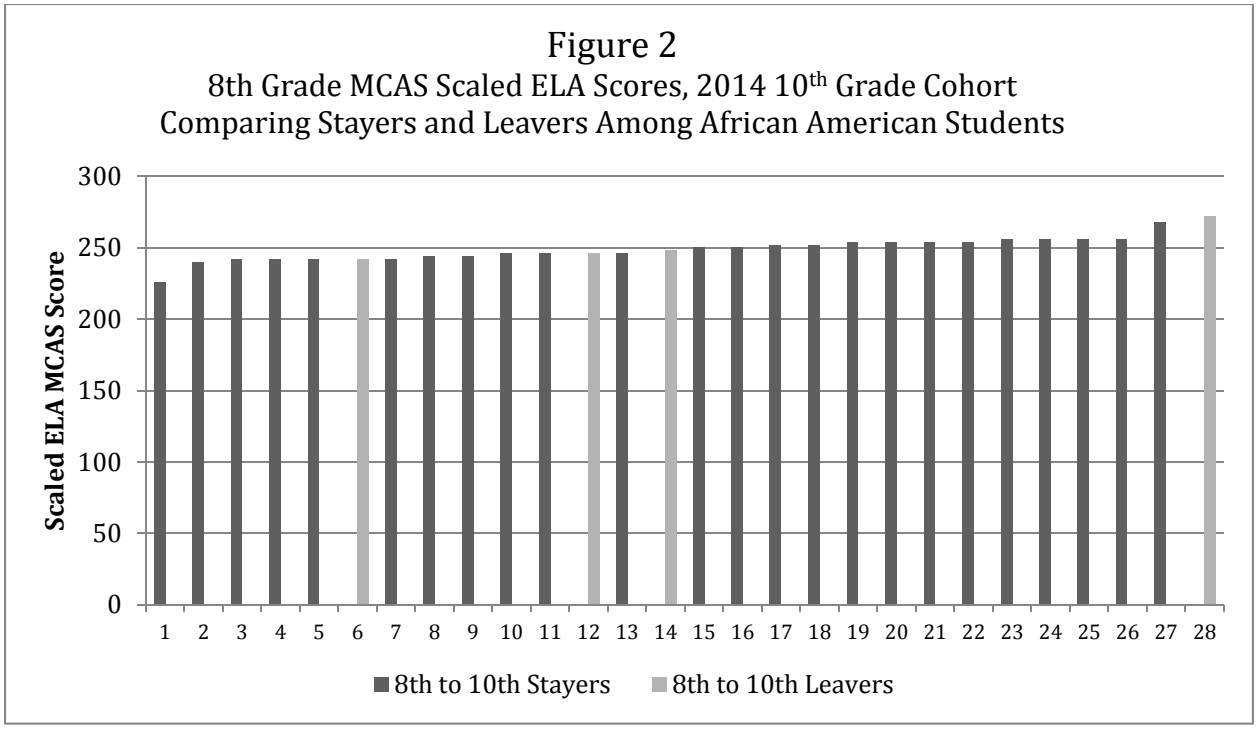
Let us begin by asking whether there was a positive trend in MCAS performance in Lexington across recent cohorts of African American 10th graders. Using scaled MCAS scores, Figure 1 shows that indeed, the trends for ELA and math were both positive. For both subjects, 10th grade scores for African Americans began trending upward around 2009, as implementation of the plan began. We will assume in what follows that changes in performance were not the result of changing demographics. We are unaware of any changes in the student body composition of African Americans that would account for the trend in performance.

Figure 1
Mean MCAS 10th Grade Scaled Scores for Lexington African American Students, ELA and Math, 2008-2014



In addition, it does not appear that the trend was the result of a policy to "counsel out" weak eighth-graders before they reached high school. For example, there were four African

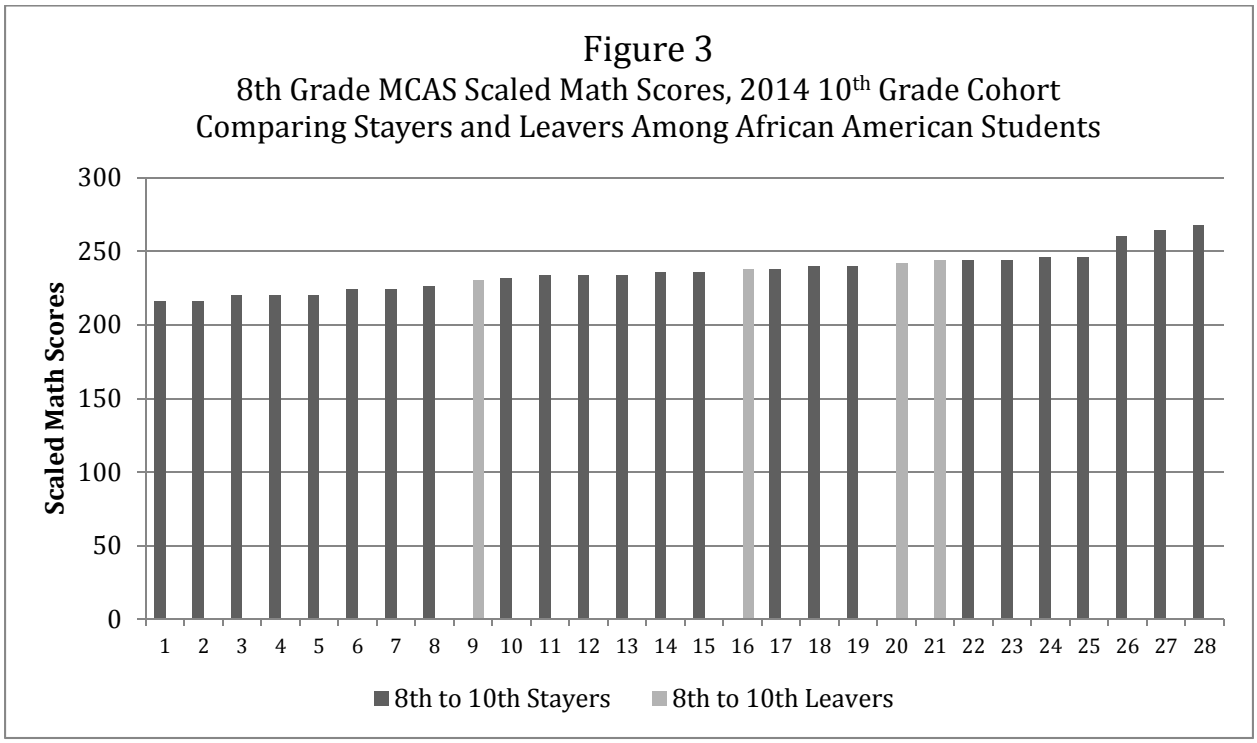
American students in the 2012 cohort of eighth graders who left Lexington before becoming 10th graders in 2014. Figures 2 and 3 show for ELA and math, respectively, that compared to their African American peers, those who left Lexington before 10th grade were not concentrated at the bottom of the score distributions. Instead, they were spread though the distribution, and typical of their peers.



Tenth graders in 2014 were fifth graders in 2009, at about the time that Lexington began implementing the plan. Therefore, progress for this and younger cohorts should be evident from 2009 forward.

We look for two types of evidence. First, if the plan helped improve instruction and supports for African American students, then we should expect to see that African American students who were fifth through eighth graders in 2014 have higher proficiency rates than 10th graders in 2014 achieved when they were in fifth through eighth grades. And second, if Lexington's efforts during this period were more effective than efforts in other districts, we should expect that Lexington's average proficiency ranking for African Americans in the 2014 10th grade cohort improved. In other words, in going from fifth to tenth grade, the 2014 cohort

of 10th graders should have moved up in the between-district ranking of proficiency rates for African American students in Massachusetts.



We find evidence for both types of improvement, albeit with some caveats. Figure 4 shows that fifth, sixth, and seventh grade ELA proficiency rates for African American students in 2014 are an average of 12 percentage points higher than for the 2014 cohort of 10th graders when they were in those grades. For math, Figure 5 shows that fifth and seventh grade proficiency rates are 21 and 19 percentage points higher, respectively, for the younger cohorts.

Sixth grade math is a notable exception to the pattern. During the 2013-2014 school year, Lexington tested a new (and unsuccessful) approach to sixth grade math instruction in some of its classes. Officials believe that this is why, as Figure 4 shows, sixth graders in 2014 scored an average of 20 percentage points lower on math proficiency than the 2014 cohort achieved when they were in sixth grade. Otherwise, for math and ELA together, five of the six comparisons for fifth, sixth, and seventh grades show that younger cohorts of African American students in Lexington scored better.

Figure 4

Spring 2014 Math Proficiency Rates for 5th through 8th Graders minus Proficiency Rates for 2014 10th Graders when they were in 5th to 8th Grades. For African American students in Lexington Public Schools

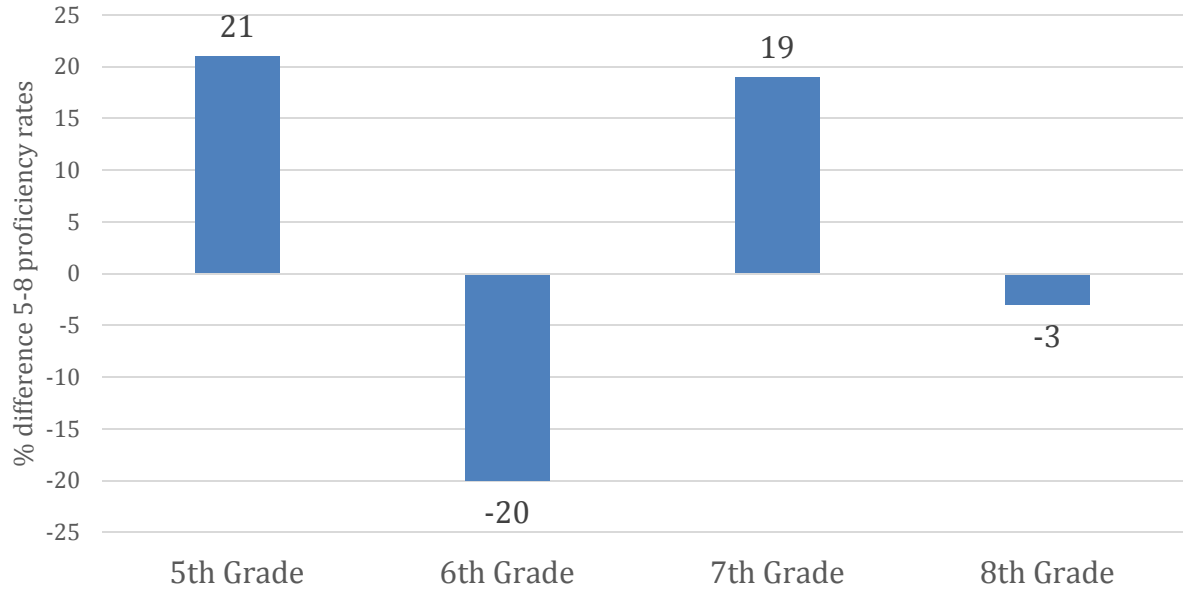
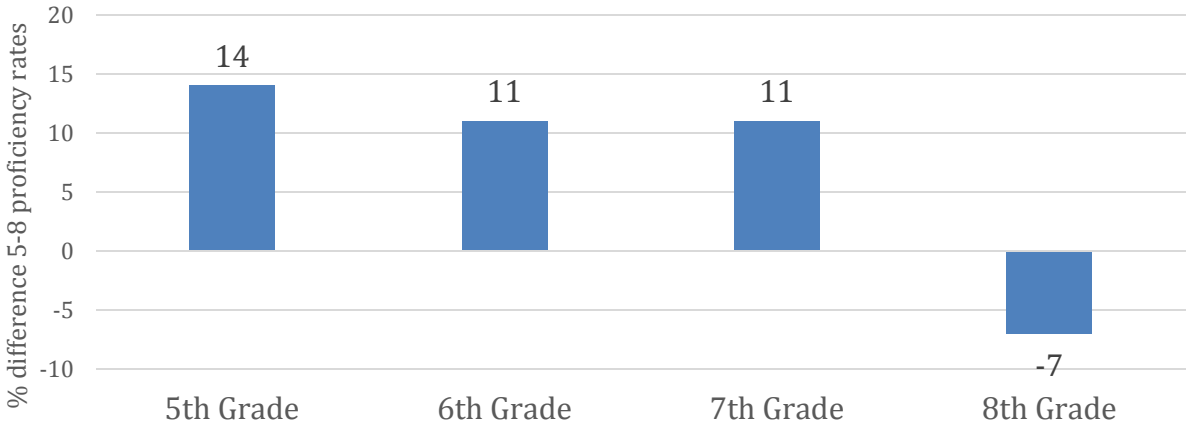


Figure 5

Spring 2014 ELA Proficiency Rates for 5th through 8th Graders minus Proficiency Rates for 2014 10th Graders when they were in 5th to 8th Grades. For African American students in Lexington Public Schools



At the same time, Figures 4 and 5 show that the younger cohort scored 3 percentage points lower on proficiency for math and 7 percentage points lower for ELA than the 2014 10th

graders did when in that grade. While negative, these differences are smaller in absolute value than the differences in the other direction for the earlier grades. One possibility is that the district-level effects of instructional improvements for African Americans were mostly in place by the time that recent cohorts reached the eighth grade. There may have been little if any difference between the learning experiences of students who were eighth graders in 2012 as opposed to 2014. And, both cohorts may have benefited prior to eighth grade from the gap closing efforts.

African American students in Lexington also improved compared to African Americans in other Massachusetts districts. Tables 1 through 4 show the rankings. Districts listed are those that had African American students in all four grade levels and that were not charter schools. On all four tables, there is a general tendency for Lexington students at higher grade levels to rank higher among Massachusetts districts. Tables 1 and 2, for math and ELA, respectively, show where the 2014 10th grade cohort ranked when they were in each listed grade. Tables 3 and 4 show where current students in 2014 ranked. Table 5 summarizes the rankings on the four prior tables and tabulates the progress. By progress, we mean changes in the rankings from when 2014 10th graders were in each grade, until the current crop of 2014 students were in the same grades. Similar to Figures 4 and 5, more recent cohorts rank higher.

Also similar to above, is that the main blip in the pattern is for sixth grade math scores in 2014, when a new approach to math instruction in some classrooms produced poor results. In addition, we see again in Table 5 that improvement between cohorts happened mostly before eighth grade.

Table 1: Moving up in the Math Ranking, 2014 10th Graders

District Rankings of Math Proficiency Rates for African American Students in the 2014 10th Grade Cohort, when the cohort was in each listed grade. Districts not listed were charter schools, ranked lower, or did not have African Americans in all grades

10th Grade	8th Grade	7th Grade	6th Grade	5th Grade
Lexington(1)	Canton	Braintree	Attleboro	Avon
	Attleboro	Brookline	Holbrook	Melrose
	Arlington	Avon	Braintree	Sharon
	Revere	**Lexington(4)**	Burlington	Arlington
	Avon		Canton	Framingham
	Salem		Avon	Stoughton
	Brookline		Stoughton	Brookline
	Lexington(8)		Brookline	Canton
			Lexington(9)	Easton
				Newton
				New Bedford
				Holbrook
				Lexington(13)

Table 2: Moving up in the ELA Ranking, 2014 10th Graders

*District Rankings of ELA Proficiency Rates for **African American Students** in the 2014 10th Grade Cohort, when the cohort was in each listed grade. Districts not listed were charter schools, ranked lower, or did not have African Americans in all grades.*

10th Grade	8th Grade	7th Grade	6th Grade	5th Grade
Lexington(1)	Weston	Arlington	Weston	Braintree
Tied with Weston and Melrose	**Lexington(2)**	Melrose	Holbrook	Canton
		Weston	Arlington	Weston
		Wachusett	Brookline	Avon
		Braintree	Burlington	Sharon
		Brookline	Braintree	Burlington
		Walpole	Wachusett	Melrose
		Canton	Melrose	Walpole
		Lexington(9)	Canton	Brookline
			Avon	Milton
			Waltham	Wachusett
			Framingham	Attleboro
			Stoughton	Framingham
			Sharon	Easton
			Walpole	Arlington
			West Springfield	West Springfield
			Worcester	Bridgewater
			Norwood	Bedford
			Salem	Haverhill
			Dedham	Stoughton
			Fitchburg	Fitchburg
			Attleboro	**Lexington(22)**
			Milton	
			Taunton	
			Easton	
			Lexington(26)	

Table 3: Current 2014 Math Proficiency Rankings				
*District Rankings for **African American Students**. Districts not listed were charter schools, ranked lower, or did not have African Americans in all grades*				
10th Grade	8th Grade	7th Grade	6th Grade	5th Grade
Weston	Belmont	Weston	Avon	Sharon
Lexington(2)	Sharon	**Lexington(2)**	Belmont	Avon
	Easton		Malden	Arlington
	Walpole		Easton	Belmont
	Bridgewater		Methuen	**Lexington(5)**
	Norwood		Sharon	
	Leominster		Chicopee	
	Arlington		Nantucket	
	Stoughton		Bridgewater	
	Woburn		Braintree	
	Brookline		Milton	
	Canton		Walpole	
	Revere		Arlington	
	Lexington(14)		Leominster	
			Waltham	
			Fitchburg	
			Weston	
			Everett	
			Haverhill	
			Pittsfield	
			Attleboro	
			Brookline	
			Newton	
			Canton	
			Chelsea	
			Woburn	
			Dedham	
			Worcester	
			New Bedford	
			Wareham	
			Weymouth	
			Lowell	
			Lynn	
			Cambridge	
			Lexington(35)	

Table 4

Current 2014 ELA Proficiency Rankings

District Rankings for African American Students. Districts not listed were charter schools, ranked lower, or did not have African Americans in all grades.

10th Grade	8th Grade	7th Grade	6th Grade	5th Grade
Lexington(1)	Sharon	Wellesley	Walpole	Weston
Tied with Melrose and Weston	**Lexington(2)**	Walpole	Stoughton	Woburn
		Weston	Easton	Braintree
		Lexington(4)	Braintree	Sharon
			Chicopee	Canton
			Belmont	Avon
			Methuen	Arlington
			Waltham	Revere
			Avon	Milton
			Dedham	Belmont
			Milton	Attleboro
			Leominster	**Lexington(12)**
			Lexington(13)	

Table 5

Lexington's Rank Position in Tables 1 through 4

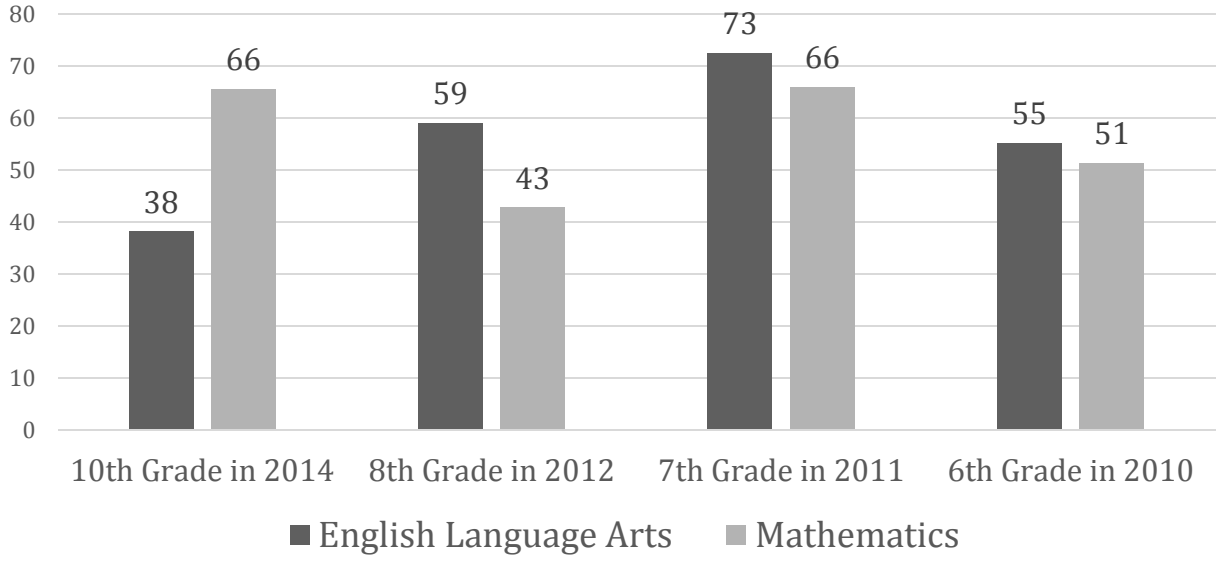
		5th grade	6th grade	7th Grade	8th Grade
ELA	2014 Cohort of 10th Graders	22	26	9	2
	Current 2014	12	13	4	2
	Progress (Difference)	**10**	**13**	**5**	**0**
MATH	2014 Cohort of 10th Graders	13	9	4	8
	Current 2014	5	35	2	14
	Progress (Difference)	**8**	**-26**	**2**	**-6**

Student Growth Percentiles

The student growth percentile (SGP) is another way of comparing progress. The Massachusetts Department of Elementary and Secondary Education uses the SGP as a measure of learning. Initially calculated at the student level and then sometimes aggregated, the SGP indicates how growth in a student's MCAS score from one grade to the next, compares to the growth achieved by peers with similar MCAS histories. It is a measure of learning.

Like any percentile ranking, SGPs have a statewide median of 50. There are twenty African American tenth graders in 2014 who have been Lexington students since before they were in the fifth grade. Figure 6 shows the mean SGP values for these students at grades six, seven, eight, and ten. Only two of the eight bars on the chart show below-average growth. The other six show SGPs ranging from 51 to 73. The seventh grade SGP values of 73 for ELA and 66 for math both exceed the analogous values for eighth grade (i.e., 59 for ELA, 43 for math) and sixth grade (55 for ELA, 43 for math). Apparently, as we speculated above, substantial growth for 2014 10th graders did indeed occur before they entered the eighth grade. Growth in ELA for this cohort slowed as they moved from seventh through tenth grades, while math growth recovered after the eighth grade dip.

Figure 6
Student Growth Percentiles for 20 African American 10th Graders in 2014 who were Lexington Students continuously, beginning before the 5th Grade



It appears that ELA proficiency rates were high for the 2014 cohort of African American tenth graders in Lexington because the cohort experienced growth in sixth and seventh grades sufficient to make them mostly proficient by the eighth grade. Even though their SGP growth in ELA was below average from the end of eighth grade through the end of tenth grade, their foundation from gains achieved during middle school was sufficient to sustain their proficiency. In fact, all but three of the twenty students were proficient in ELA by the seventh grade and all but one were proficient by the eighth grade.

In contrast, the majority of the 20 *did not* score proficient in math at the end of eighth grade. This low eighth-grade proficiency rate is partly reflective of strict Massachusetts standards for proficiency in middle school math for eighth graders. The fact that the cohort's proficiency rate was so much higher in tenth than in eighth grade is partly reflective of more lenient state standards for tenth grade than for eighth grade proficiency. We say this because statewide math proficiency rates are much higher in tenth than in eight grade—a difference greater than could plausibly be accounted for by statewide growth in skill. However, the high proficiency rate for Lexington's 2014 cohort of African American tenth graders also reflects the fact the cohort achieved above average growth in math achievement—i.e., an SGP of 66—from end of eighth grade through the end of 10th grade.

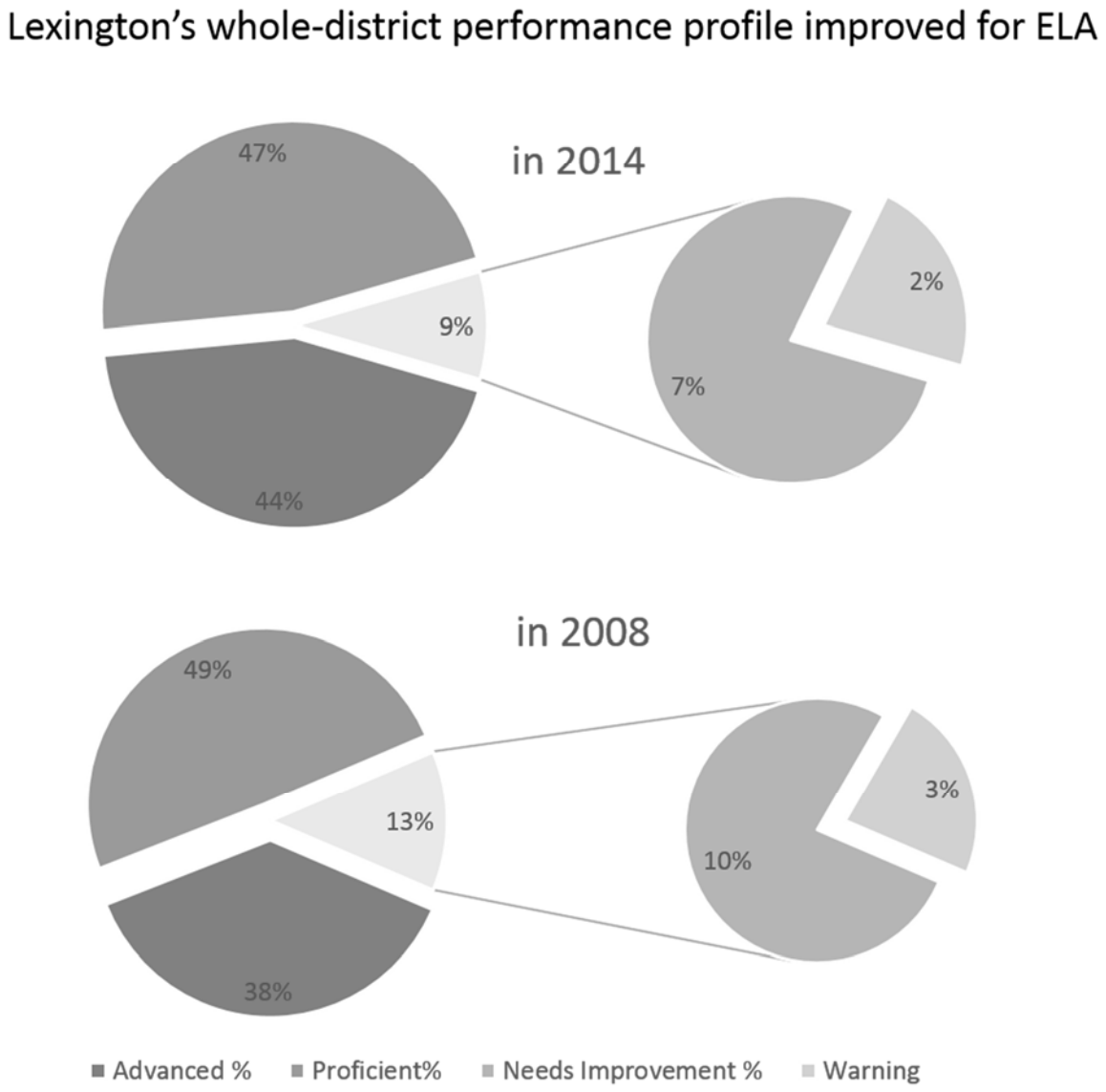
Whole District MCAS Data

Lexington proficiency ratings have placed the whole district among the top five Massachusetts districts in ELA and the top three in Math through the entire period that we examine. During this period, there has not been a clear trend in where the overall district ranks among these top few districts. At the same time, there has been improvement in overall performance.

One of Lexington's core beliefs during the change process was that raising achievement among African American students and other subgroups would improve the educational experience of all students. Figure 7a shows for ELA that the percentage of all Lexington students scoring below proficient on the MCAS dropped four percentage points over the period (from 13% down to 9%), while the percentage scoring in the advanced range rose six percentage points (from 38% up to 44%). For the district as a whole, there was above-average annual growth. The SGP remained between 60 and 65 through the entire period, indicating that the

average student in the district was learning more each year than most of counterparts across the state.

Figure 7a

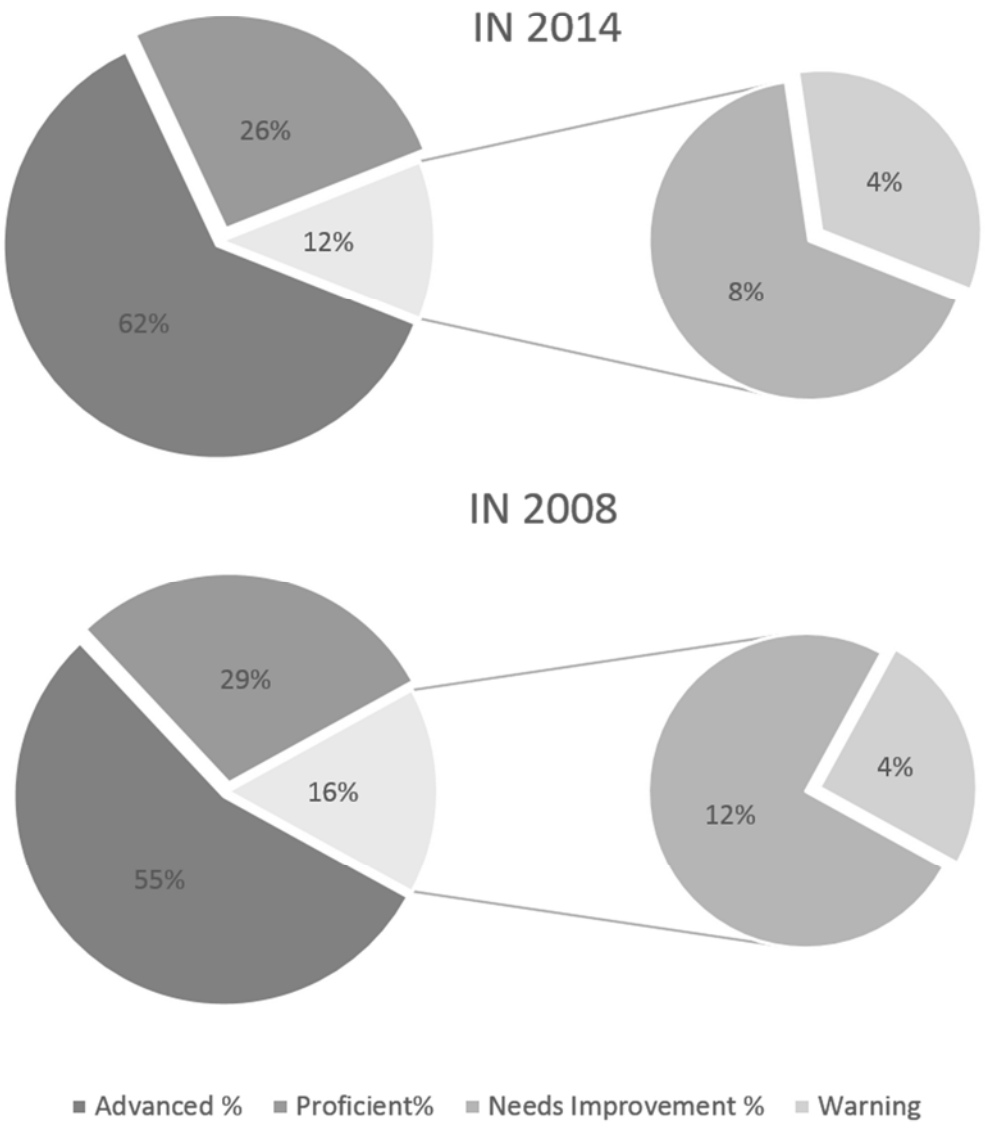


Similar to ELA, Figure 7b shows for math that the percentage of all Lexington students scoring below proficient on the MCAS dropped four percentage points over the period (from 16% down to 12%), while the percentage scoring in the advanced range rose six percentage

points (from 55% up to 62%). Also similar to ELA, the SGP for math through the entire period ranged from 60 to 65.

Figure 7b

Lexington's whole-district performance profile improved for Math



Figures 8 and 9 show whole-school proficiency rates (i.e., proficient plus advanced) for 2007 through 2014, by school. Figures 10 and 11 show the percentages scoring advanced. All

four figures show evidence of progress. Notably, the greatest progress has been at the schools that had the lowest scores at the beginning of the period. These are also the schools that tell the most detailed stories about their paths to improvement.

Figure 8
Percentages Scoring Proficient in ELA,
by Year and School, for All Students

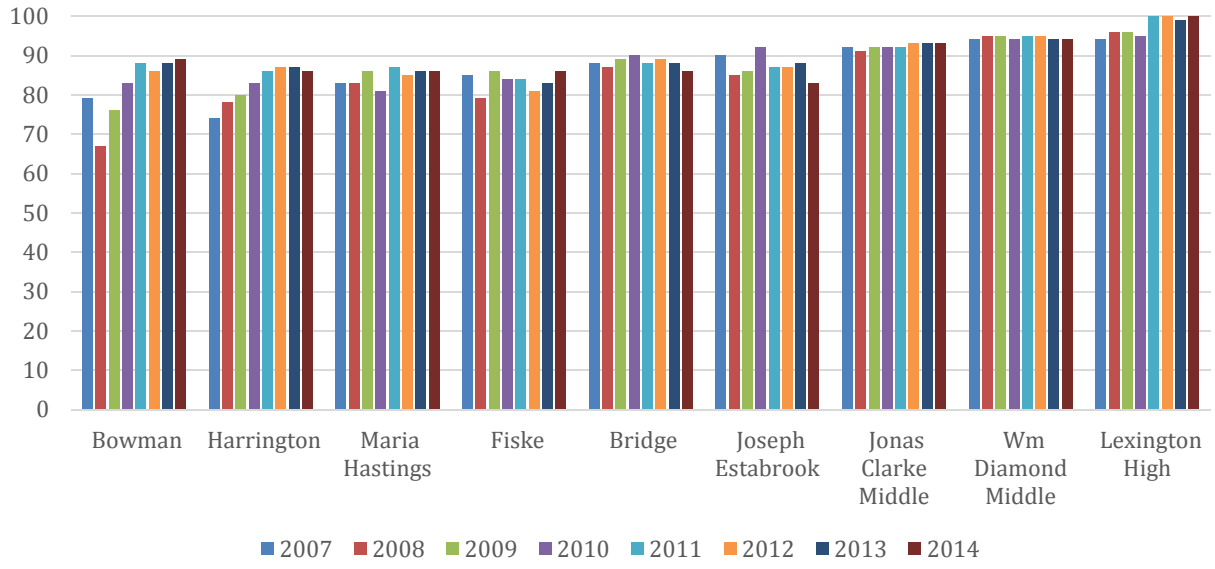


Figure 9
Percentages Scoring Proficient Math,
by Year and School, for All Students

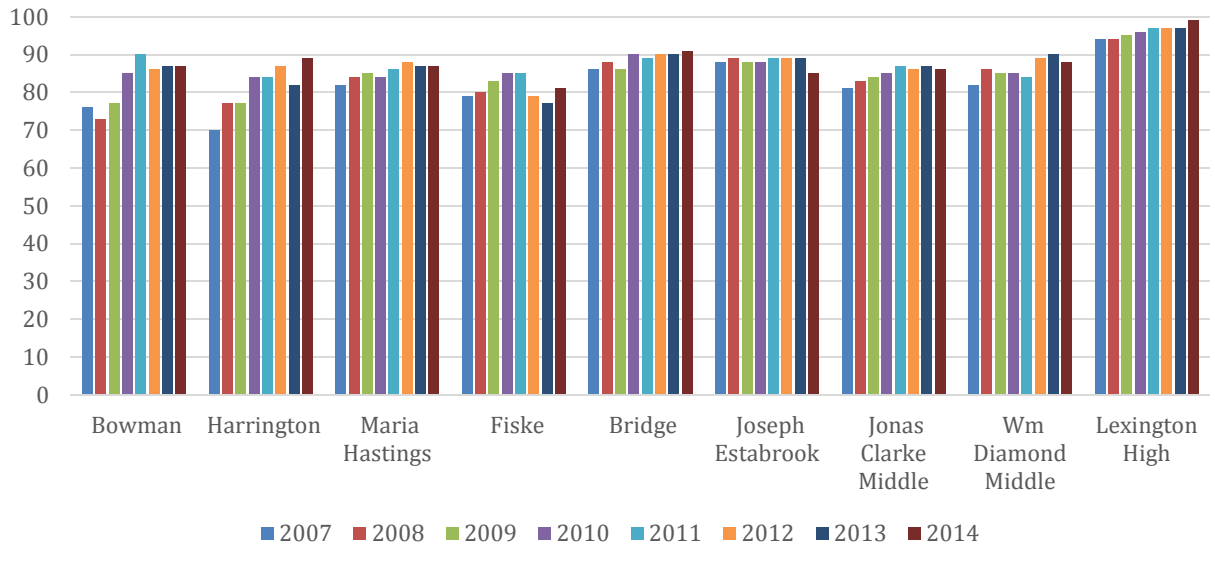


Figure 10
Percentages Scoring Advanced in ELA,
by Year and School, for All Students

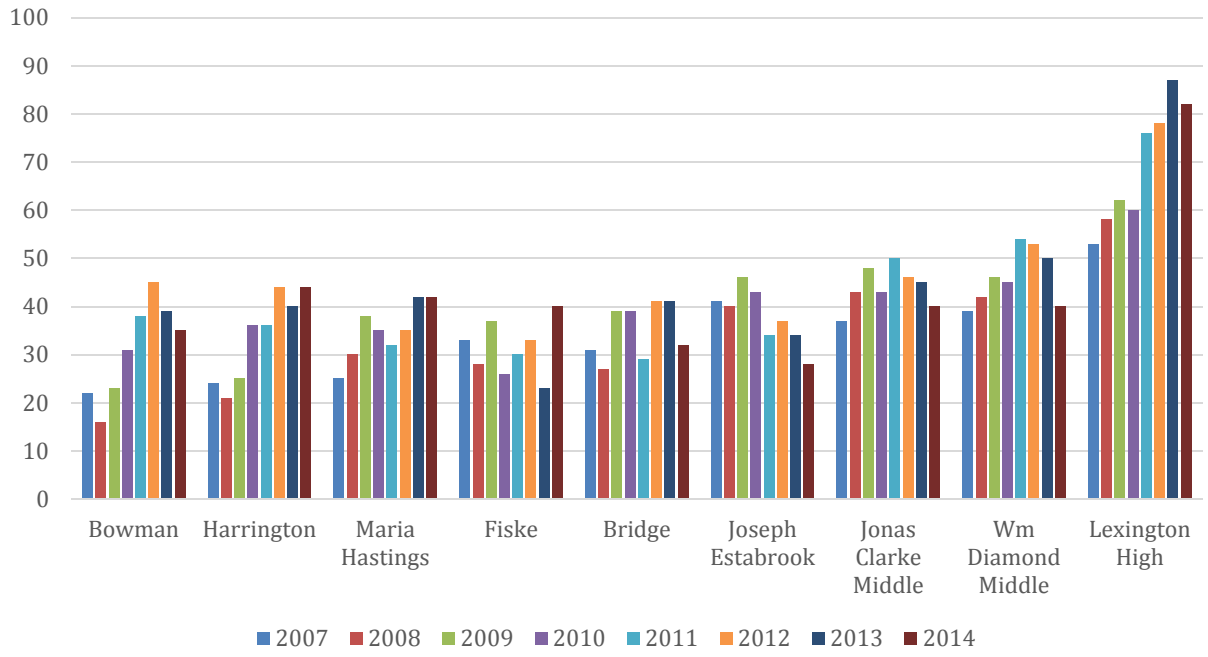
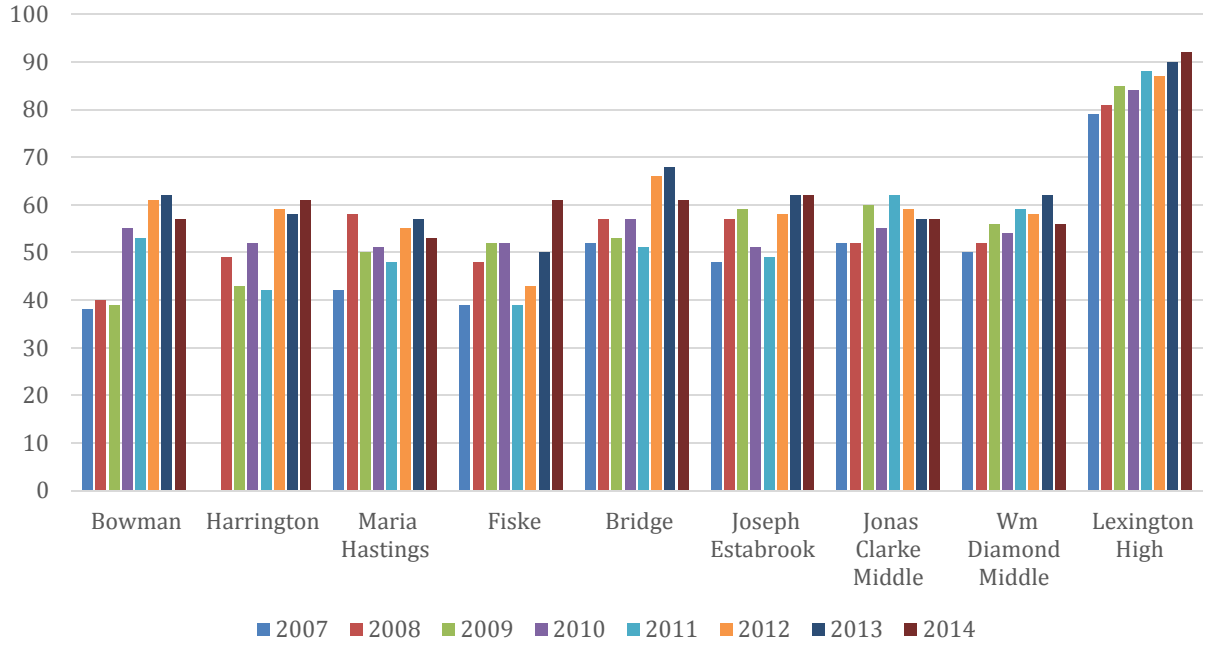


Figure 11
Percentages Scoring Advanced in Math,
by Year and School, for All Students



Finally, Figures 12 and 13 show rising performance for all students—as well as a tendency toward narrowing gaps between African American students and all Lexington students—in the percentages scoring advanced on the MCAS. Both excellence and equity have been increasing.

Figure 12
Percentages Scoring Advanced in ELA at Lexington High School, separately for African American and All Students

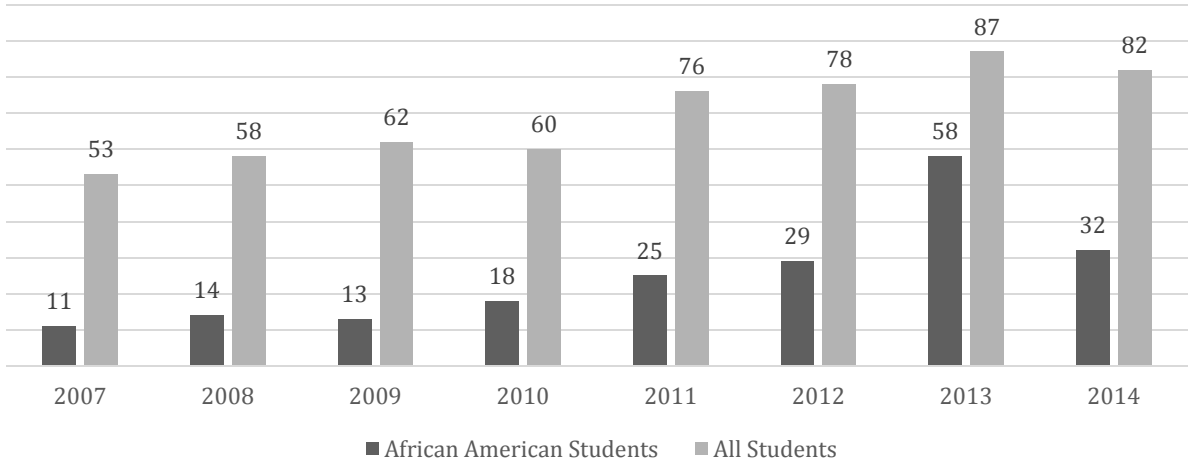
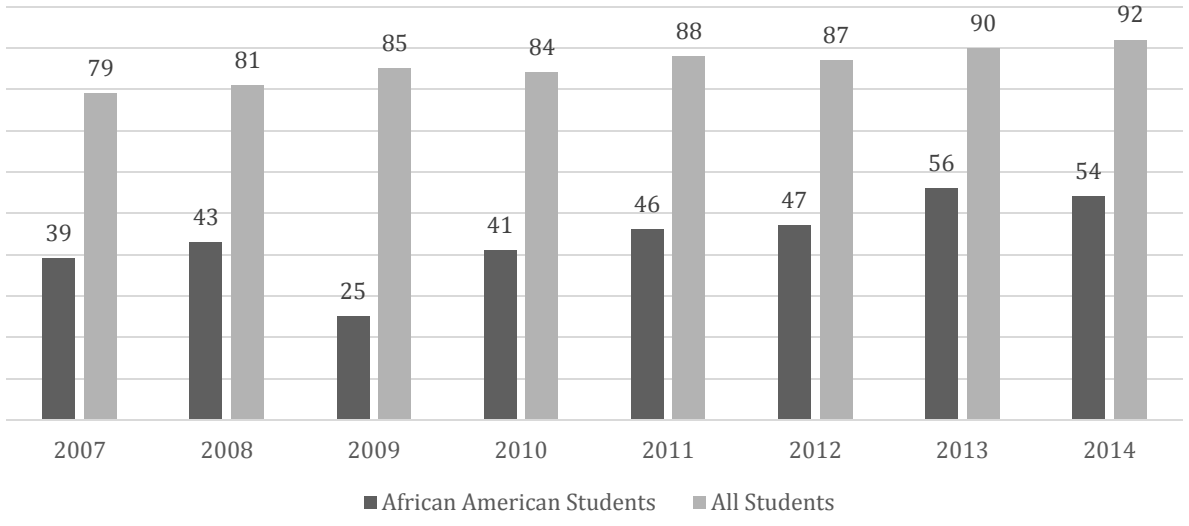


Figure 13
Percentages Scoring Advanced in Math at Lexington High School, separately for African American and All Students



SAT Scores

The SAT college entrance exam is an entirely different source of evidence. That source too, shows impressive progress.

First, there is evidence of gap narrowing on SAT scores—i.e., African American's scores rose faster than for all students—from 2006 through 2008, which were the years just before the work described in this report gained momentum. Then, there was a three or four year pause in progress, as the new work took hold. Progress in narrowing SAT gaps reignited after 2011. The most recent available data are for spring 2014. The 2014 data show the highest scores that African American students have achieved over the entire period. These most recent data also show the narrowest gaps compared to all students, even though scores for all students have similarly peaked in the most recent years. These statements are true for math, reading, and writing, as shown on Figures 14, 15 and 16, respectively.

Hence, the SAT patterns are very much like the patterns for advanced status on the tenth grade MCAS. Specifically, the mean performance for all students has improved, but African Americans have improved more rapidly.

Both excellence and equity have been increasing.

Figure 14
Trends in Lexington's Mean SAT Reading Scores
for 2006-14, African Americans and All Students

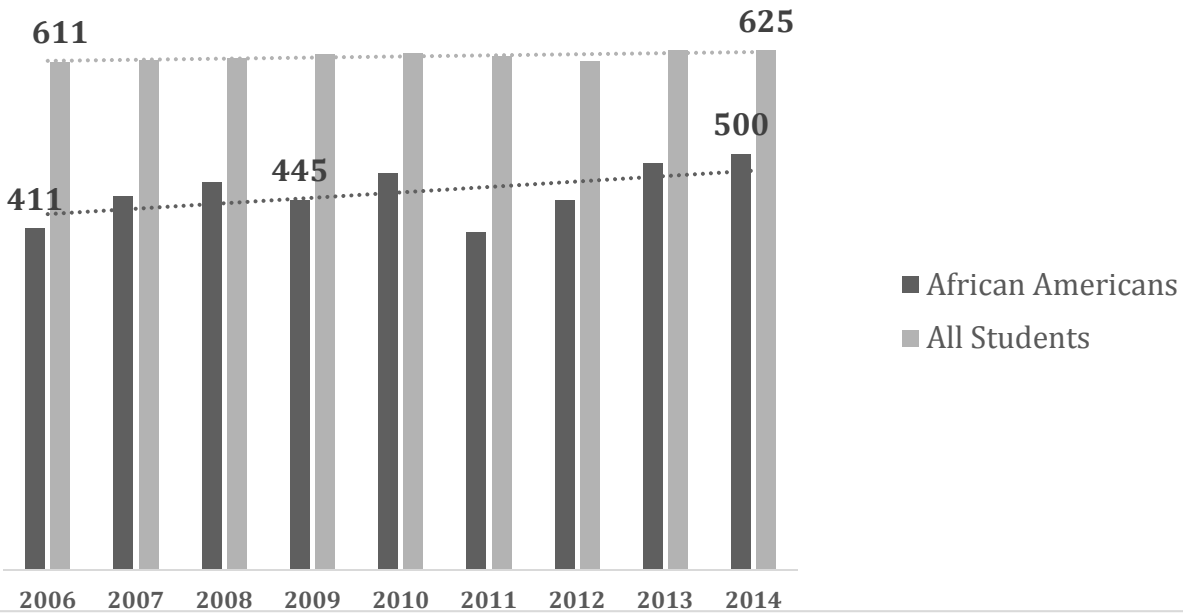


Figure 15
Trends in Lexington's Mean SAT Math Scores
for 2006-14, African Americans and All Students

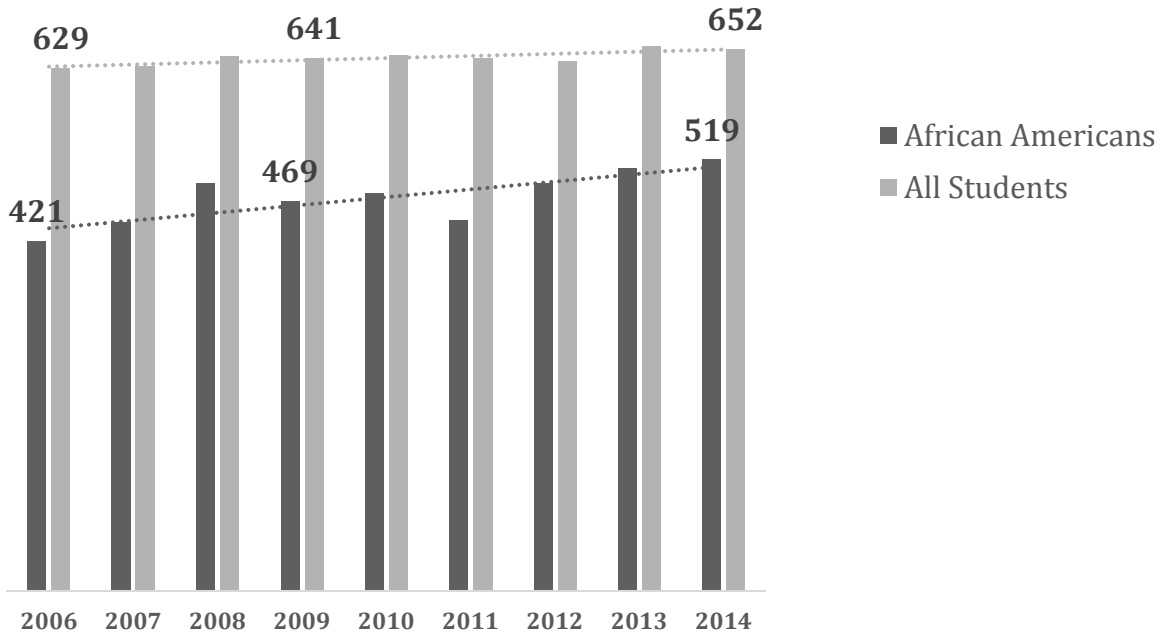
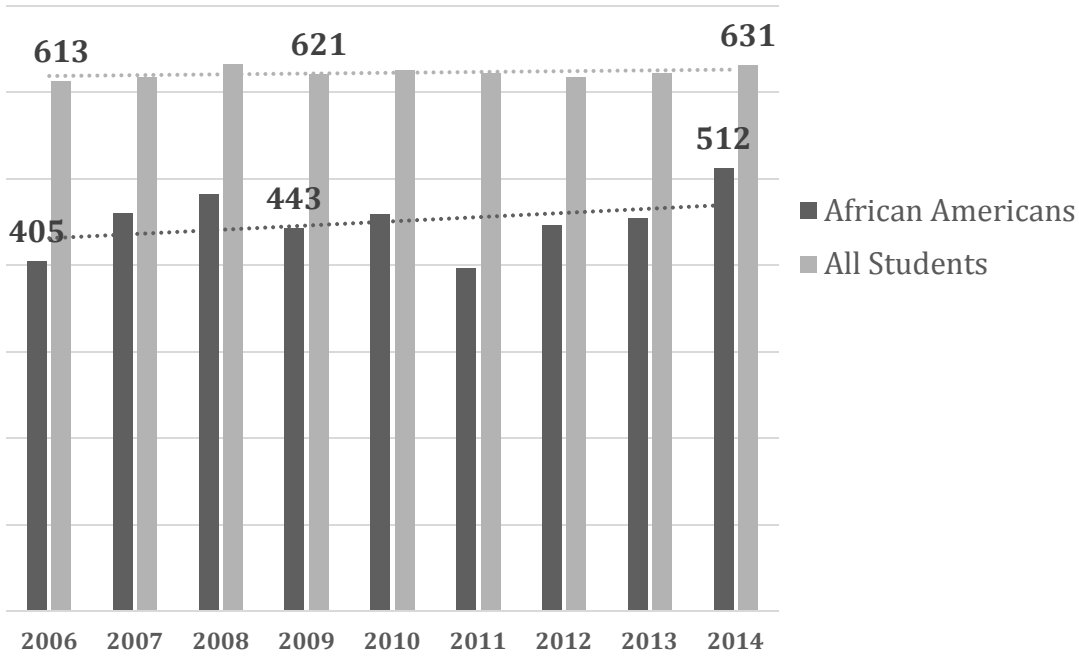


Figure 16
Trends in Lexington's Mean SAT Writing Scores
for 2006-14, African Americans and All Students



4. Investing in Supporting Achievement for All Students

Theory of Change

"All children can succeed. All children will succeed."

Lexington took an omnivorous attitude towards reform, looking high and low for strategies that had already proved themselves in other districts. Research motivated some new approaches, district leadership identified others, and still more were the brainchildren of teachers, school administrators, and parents. Whatever its origin, every idea comported with a set of core principles about teaching and learning. These principles were repeated over and over again until they became mantras of change.

Motivating Lexington's instructional and programming changes is an explicit philosophy about ability and potential. Like all places, Lexington had harbored some limiting beliefs about student learning. When teachers weren't able to help a child, without PLCs, professional learning, or RTI to support them, it could be difficult to resist the idea that some children simply could not be taught. "There were a lot of excuses for kids not learning," one person remembers. "Some people said *We have a different kind of kid here.*"

New structures and strategies for instruction went a long way towards changing these beliefs. But the district also attacked them directly, relentlessly promulgating a common vision about the role of teachers and the capacity of students. "I told everyone, *All kids cross the finish line*," one administrator remembers. "*All means all, and it is going to take all of us.*" This messaging has supported the cultural shift towards teacher transparency and collaboration, perhaps because it motivates people by focusing on student success and not teacher failure. Teachers can expose their own weaknesses to each other in service of a powerful shared goal. Teachers cite this philosophy as one of the most important changes they have witnessed.

From the outset of the change process, teacher and administrative leaders were committed to the belief that, whatever the origins of the gap, its fix was in the classroom. "I struggle when a teacher gives me all the external reasons kids can't learn," one person says. "We can't use [parental support] as an excuse, we can't use METCO or Boston as the excuse."

Instead of tinkering around the margins, Lexington reengineered fundamental things about how teachers teach and students learn in the district.

The guiding idea was collaboration and tiered intervention. "We're all making the same movements in classrooms, using the same language," one faculty member says. Alignment across classes and from grade to grade helps students consolidate knowledge and navigate major transitions (from elementary to middle school, for example). To achieve this kind of alignment, Lexington put in place multiple structures and practices to encourage extensive collaboration between teachers and align curriculum and professional development resources.

"Raise All Boats"

Lexington began this work focused narrowly on closing the achievement gap between white and Asian students, and black and Latino students. But that goal was quickly replaced by a broader, more inclusive vision of reform that would improve the educational experiences of all children. The reasons for this change were threefold. First, the district believed that what was good for black and Latino students would be good for *all* students: "a rising tide lifts all boats." Low-performing students from every background benefit from the deep dive of the data teams and RTI, and every single student benefits from a curriculum aligned around common standards and teachers who collaborate to better their instructional practice.

Second, the district embraced the idea that the METCO program and METCO students and families make valuable contributions to the school community. The more these students are able to realize their abilities, contribute to school life, and build relationships with their peers, the better for every student and teacher.

Third, the district recognized that to create buy-in for its program of change, it needed to make the case that closing the achievement gap was integral to Lexington's ability to serve all children. "What you do for struggling students is good for everyone," one EEC member says. Focusing on all children helped mainstream the change movement within the district and in Lexington at large, placing equity at the core of Lexington's educational mission.

Curriculum Reviews

Prior to the curriculum review during the 2006-2007 school year, the curriculum had not been systematically evaluated for 10 years. It was loose and fractured, with content varying from one school to another and even classroom to classroom within grade level. There was no

vertical alignment across grade levels, and very little horizontal alignment between subjects within a grade level. As the Common Core movement was developing across the country, Lexington moved to create a standards-based curriculum. By facilitating greater horizontal and vertical alignment in instruction, this process has brought about "more equitable expectations" for students at different schools. LHS teachers can no longer identify which middle school a student came from based only on their proficiencies.

To coordinate teaching with this new curriculum, Lexington created district-wide department heads as new positions. Department heads oversee curriculum and lead teacher evaluations, and also do some teaching to stay in touch with what is going on in the classroom. They have made a "huge difference," one middle school educator says. "Before, each middle school had its own department chairs, but now department meetings are joint, and heads evaluate teachers at both schools. It gives a consistent experience and has made a huge difference in making kids successful."

Curriculum review and district-wide department heads have been especially important at the middle schools, where teachers have long struggled to manage the transitions from elementary school and to high school. "Before, sixth grade staff talked to fifth grade only on move-up day. Now they meet with fifth grade teachers about curriculum vertical alignment, and it's the same with middle to high school transitions." Transitions still present a serious challenge for teachers and students alike, but these new measures have softened up the problem.

Professional Learning Communities (PLCs)

"Not my student or your student, but our student"

Professional learning has been the backbone of Lexington's change movement and PLCs its core structure. First launched in Lexington in the 2006-2007 school year, PLCs vary from school to school. Whatever the particular conformation, they are a place where teachers sit down together regularly to look at student data and strategize.

Although PLCs are part of a larger philosophy about consistent and high quality instruction, they have individual character. This is because Lexington sees them, as it sees all professional learning, as an exercise in capacity-building and institutional learning. The goal is to help teachers develop the individual skills and collective relationships that make collaboration sustainable. "We're constantly asking [teachers] to grow themselves," one administrator puts it. "They're all in different places with personality and experience. We want to keep them all going

at their own pace…One PLC might figure out something and share it, and so on. It's like driving, where you need to push the accelerator gently but also coast sometimes to see what's going on around you."

In addition to PLCs, many teachers are also members of data teams that identify struggling students or challenging material and plan accordingly. At Estabrook Elementary School, for example, PLCs meet weekly for sixty minutes in six week cycles, in addition to the informal conversations that teachers have with each other every day. PLCs look at student performance data to select students that the data teams will focus on during the last week in the cycle. The data teams use a spreadsheet of student performance data that the PLCs create directly from teacher materials.

While PLCs meet weekly, teachers who are teaching the same courses meet "almost daily" to discuss their work. This time is built into the schedule for teachers to collaborate on lesson design and troubleshoot exercises or assignments. When common planning time was introduced, "there was some push back: *You are taking away my prep time*," one teacher remembers. That became "*our time*" for collaboration. In some schools, common planning is even built into the physical layout. "The principal before me reorganized the teacher work room by content groups," one principal says. "Teachers came in, and their desks were in different places. It was a giant *Oh my God*. And now, seven years later, people love it and wouldn't give it up."

The PLCs have been a positive experience for almost everyone. At first, the collaboration felt foreign and went forward in fits and starts. "We sort of went backward, starting with PLCs without knowing what we were doing," one teacher says, "but now we're getting better at looking at data and best practices and working in teams." Even now, some teachers feel that PLCs are not a natural fit for some teaching contexts. For example, at the secondary level where teachers are subject matter experts, others may dislike being in a position to review critically another teacher's practice.

Even so, PLCs are "very productive" for many teachers. One reports that PLCs have helped her department get "on the same pace with the math curriculum." "We're starting to look at kids' work as a whole," another says. "We look at what some teachers are doing and what some others may not be doing. What you do for struggling students is good for everyone."

Data Teams

At the beginning of the change process, one administrator recalls, "we said, *Wouldn't it be great if data lived in one place?*" Data teams are the fulfillment of this wish. Every six weeks at each school, large groups of teachers, counselors, and administrators meet to discuss collective grade-level performance and struggling, individual students. The teams number between 14 and 20 faculty members, and the school principal chairs the meeting. One elementary school, for example, has six different data teams that meet for two hours each.

The goal of these meetings is to use student data "to see where there might be gaps or where the student is making progress." According to one administrator, "unmet need is the focus." Teachers forward students who are "below benchmark" with respect to grade-level standards or their personalized learning plans. The data teams analyze data on student performance as well as teacher observations to put together a set of interventions or strategies. Sometimes these conversations "lead us to look more deeply at the student to see if there is an underlying causal factor" the school can help address.

Like PLCs and common planning time, data teams require a high level of trust between teachers in order to work. "It has to be a safe zone," one administrator says, requiring strong facilitation skills from the principal chairing the meeting. The practice represented "a real culture change." Teachers used to have a great deal of privacy and autonomy in the classroom, and while some might have consulted their colleagues for advice, they were never publically accountable to each other for their students' work. But with so many forces aligning in the push towards transparent and data-driven instruction, the data teams have actually "enhanced school culture" for many skeptics.

Common Formative Assessments

Lexington's action plan proposed that elementary and middle schools adopt common formative assessments by 2010 and LHS by 2011. The schools use common formative assessments to track student growth throughout the school year. Pre- and post-assessments are designed collaboratively by teachers and used to evaluate learning, identify troublesome content or themes, and support consistent instruction from one classroom to another. Common formative assessments tie in with several of Lexington's new instructional practices, including the curriculum review process. Teachers design and review the assessments in PLCs and on data teams. Lower grades also use assessments to create standards-based report cards.

Adopting common formative assessments has been a challenging process. "Teachers are not trained in making valid assessments—they're not working for testing companies, of course," one administrator acknowledges. "So now there's training for how to facilitate that process in departments, we administrators learning with teachers." Teachers have also had to work through some natural suspicions and fears about the process. "A growth mindset, believing we are all learners and we should be making mistakes and learning from them and sharing what we've learned—that allows teachers to feel safer and take risks," an administrator says. There has been progress on this front: this administrator recounts a recent PLC meeting where one teacher realized that kids were struggling with a key concept because they had never mastered a prerequisite skill. "So then they all focused on that. Veteran staff working with twenty-somethings out of college."

Response to Intervention (RTI)

As Lexington sought a common classroom experience for all students, the district was also working to make itself more nimble in meeting individual student needs. Previously, SPED was the main tool teachers had to help struggling students and differentiate instruction. "Students who couldn't read well were referred [to SPED] in first and second grade," an administrator says. "They were referred to teachers who were trained for SPED, not reading instruction. People thought they were doing the right thing. Back then, they didn't have many other resources."

To limit inappropriate SPED referrals and provide students the help they need within ordinary instruction, Lexington adopted tiered response to intervention (RTI). RTI starts in the data team meetings, where teachers identify struggling students and collaborate on a set of interventions. RTI looks for opportunities to help students in every corner of the school day, whether that means asking a math teacher to collaborate on literacy strategies, or pairing a student up with a math coach for part of a math period. In the case of METCO students, if the team eventually decides to refer the student to SPED, the principal, superintendent, and METCO Academic Director must review the case.

Like so many other changes, RTI has pushed teachers to become comfortable sharing their own struggles publicly. "In the past, I as an individual classroom teacher might say, *Gee, my students didn't do as well on that last assessment*," one former teacher says. "But you're not going to reveal that to your other fourth grade teachers," another chimes in. "Because [you're

thinking] *Oh my gosh, you did really well on measurement, I can tell, and I didn't do so well*. That shift is about trust."

"empowering teachers to teach each other"

Solving student learning problems with RTI requires a robust professional learning program. "RTI is really where our professional learning program took on huge substance," one administrator says. "We were able to identify areas where teachers needed more skills. If we are going to say that you have to be responsible for 85-90% of your students and you need to shift adult actions to…make sure you are targeting the need, you need to know more about it. So it's really about building your own professional toolkit to understand what it is that you have to do in the classroom."

Teachers have taken the lead seeking out professional learning experiences that support RTI. For example, after reading new research on executive functioning in children, a group of teachers at Hastings Elementary School came to the conclusion that it was a key factor for some of their struggling students. They wrote a Lexington Education Foundation grant to run a summer workshop with an expert on executive functioning. For a five hour presentation, the district had to raise the enrollment limit twice, from 25 to 45 to 65 teachers. The workshop was so successful that the original grant writers created a graduate level course on executive functioning, which will be offered to Lexington teachers through the Professional Learning Program for the third time this summer.

Success with RTI requires major commitments from teachers, commitments many teachers still struggle to meet. "Paul's mantra *All students get what they need when they need it* was scary to teachers, because it seemed like *If a kid wants ice cream, we give her ice cream*," one administrator says. "But now it's more understood and accepted as, *If we're not meeting needs, we need to troubleshoot*." Still, the pressure to make instruction responsive to so many individual needs and still cover all the curriculum is challenging. Having RTI on the schedule and putting structure on the expectation that all teachers will participate in the interventions has helped. But as one teacher says, "the balancing and juggling is difficult."

Professional Development

To help teachers take on such a broad array of new practices, Lexington has invested heavily in professional development and built a remarkable in-house program. "There is lots and lots of PD," one teacher says. "Teachers here have very high expectations, and I've struggled

finding service providers that meet their needs." Lexington has responded to this problem by developing a battery of professional learning opportunities taught by district staff. A Professional Learning Committee oversees the development of new courses, and the district holds "unconferences" with expert speakers and Lexington Learns Together, "a whole day of Lexington people teaching Lexington people."

"The courses are far above what I've seen in any other district," one administrator says. "We've all figured out, and the district has figured out, that we learn best from each other." In this context, PD is less about beaming new ideas into teachers' heads, and more about developing the relationships and resources in the district that will support each teacher's personal growth. "It's about meeting teachers where they are," one person says. Another describes it as "almost contagious. Before we were begging people to offer courses, but now there are all kinds, and they're not just subject-specific. Social studies teachers are taking math and science integration courses!"

Lexington has put effort and thought into making this model of professional development practically feasible for teachers. In 2009, the district created a PD committee funded by federal stimulus money and chaired by Joanne Hennessy, the retired principal of Diamond Middle School. Hennessy focused on a curriculum that would empower teachers to develop their skills and measure impact in the classroom. The Assistant Superintendent for Curriculum, Instruction, and Professional Learning, Carol Pilarski, manages professional learning for the district, assisted by a full-time Coordinator of Professional Learning and Special Projects. In addition to aggressively funding PD, the district has been creative about finding time in the day for PD. Aside from full-day events like Lexington Learns, "PD is embedded in the day as well as after school." A capacity-building recruitment strategy has brought in subject coaches to "support daily PD," and new faculty are hired "for being reflective practitioners, committed to continuous improvement and changes in practice…[and with] a high interest in collaboration."

Finding More Time for Student Learning

In addition to all the innovations in instruction detailed thus far, Lexington also launched major, new programming for students outside of the classroom. The purpose to all of these programs was to find more time for students to learn. "Most things proposed involved time," one administrator says. "We saw that to make any inroads, you need to increase time either in the day or in the year for students that need to be caught up."

Elementary School Interventions

Extra time initiatives spanned all grade levels but were most intense at the K-5 level, reflecting the district's strategy to close gaps early on. **Full-day kindergarten** had been in the works for some time and "has made a big difference," teachers say, because the district can now begin RTI for math and literacy in kindergarten instead of first grade. The district also started a **Jumpstart summer school** for all incoming METCO elementary students, with an academic curriculum run by district employees.

Elementary schools have also carved out extra time during the school day for math and literacy instruction. Students who have been identified by the data teams for RTI attend **intervention blocks** where they work intensively with teachers and coaches on literacy and math. Students can receive extra literacy instruction for up to two hours daily, and math instruction for up to one hour. "Every grade has intervention blocks at a different time, so we can use resources like literacy specialists in all of them," one administrator says. Performance data and supports received by each student are systematically recorded and tracked, often using technology-based tools to work collaboratively and streamline the process. For example, several schools use Google Drive to share meeting notes and document supports and student performance over time. "If a child doesn't respond to interventions and is referred for a possible learning disability diagnosis, we have a record of everything already tried, and we can say *We haven't done enough yet* or *Okay, let's move forward with the referral*."

Equally successful is the **METCO After-School Extended Learning Program (MELP)**. Developed in response to the LaMura report and suggested by a METCO parent, MELP provides struggling students with 20 after school sessions divided between the fall and spring. On selected Thursday afternoons, when school gets out at noon, students are bused to the district's central office after lunch to work with literacy and math teachers for one hour each. Licensed Lexington teachers and specialists participate in MELP on a paid and volunteer basis because they are passionate about closing the achievement gap.

MELP has evolved considerably since its inauguration. "It's an amazing difference between when it started and now," one teacher says. "At first we had good intentions but not an ideal structure or physical space, and not enough staff to provide everything." Sessions were not scheduled for consecutive weeks, leaving multi-week-long gaps between meetings. "It made it impossible to follow up on student learning." MELP staff were mostly specialists, not classroom

teachers, and there was not close alignment between MELP activities and the school curriculum. The district has since consolidated the schedule and facilitates to promote closer collaboration between students' classroom teachers and MELP tutors. Morale among MELP staff is high because "kids really enjoy it and get a lot out of it." METCO parents also believe the program has been helpful. One parent credits it with turning her very active child into an avid reader after years of trouble sitting and focusing to read a book.

Middle School Interventions

"I like how it is like a family. It is very open and everyone helps one another"

Twenty-six (63%) of the 41 middle school METCO students filled out an online open response survey. Students were asked to share what they liked most about their school, teachers, classes, and other students. They were also asked if they participate in extra-curricular activities at school, which programs or people have really helped them academically, and whether they were personally affected by the cancellation of the late bus this year.

Most (77%) of the students who responded started in kindergarten or first grade. Over half (54%) participate in extra-curricular school activities. Almost all (92%) described other students as "nice", "friendly", "accepting", "diverse", "helpful", or "kind" suggesting a positive peer environment for most METCO middle school students who responded. Teachers were mentioned most often in response to the question, "What do you like the most about your school?" and "helpful" and "nice" were what most students said they liked most about their teachers.

The most popular academic program for METCO middle school students is the **extended day** or homework club. Both middle schools have extended days four times a week for METCO students, from 3:00 to 4:00. Unlike MELP, which targets struggling students, extended day is open to all METCO students. "It's not strictly mandatory, but de facto," an administrator says, since the METCO bus does not leave until 4:00. Stipended teachers in ELA, social studies and math staff the program, helping students start their homework and use computers.

"The vision was to give them access to more teachers and allow them to get extra help," says one administrator. Before Clarke Middle School started extended days, most teachers would arrive early to be available to students for extra help before school started. Because the METCO bus does not arrive until 7:30 or 7:45 in the morning, METCO students are not able to

take advantage of this routine. Extended day is a partial solution to this problem, but tacking on an extra hour of learning after school makes for a long day. "I feel bad for the kids," one administrator says.

In fact, METCO middle schoolers are extremely positive about the program. In the METCO student survey, it was by far the most popular program for providing academic support. "The after school program helps me mentally," one student says, "in that I complete difficult homework at school. It also helps my grades." Students also mentioned being helped academically by their teachers and study halls.

Mathpath summer school is a more recent addition to the middle school arsenal. Starting in 2010, Lexington has run an intensive math camp for METCO students in the sixth and seventh grades. "It makes a difference because it is three concentrated weeks in July," an administrator says. "It is essentially math immersion," and it also offers METCO students an opportunity to build relationships with each other and strengthen the bonds of their cohort.

High School Interventions

Forty-seven (55%) of the 85 high school METCO students also filled out the student survey. Most (68%) of the students who responded started in first grade. Over half (64%) participate in extra-curricular school activities. Teachers, academic rigor, diversity, and freedom were mentioned most often in response to the question, "What do you like the most about your school?" and "helpful" and "caring" were what most students said they liked most about their teachers. Most (87%) described other students as "nice", "friendly", "accepting", or "diverse" indicating a positive peer environment for most METCO students who responded at the high school as well. Most students (68%) reported that their regular teachers or METCO's academic support teacher at LHS, Gretchen Segars, had really helped them academically.

"What I like most about my teachers is their availability when I need them and their willingness to help me succeed."

Lexington's middle and high schools share several program concepts. The high school holds a summer school to acclimate incoming METCO freshmen to the LHS student expectations and to seed relationships between teachers and students. During the school year, a LHS tutoring program is staffed by more than 100 student volunteers who keep the program open for drop-ins seven blocks a day. METCO also runs a **learning center** that offers academic (all grades, all subjects) support all day long for drop-in or referred students, overseen by Ms.

Segars. Another popular program is a **homework club** for METCO students twice a week, also run by Segars. The homework club has existed for several years, although its focus has shifted, sometimes focusing more on academic performance and other times on executive functioning and self-efficacy.

Many students cite their time with Segars as a key factor in their academic success. "She is really helpful, and she does her best to keep everyone on top of their grades," reports one high school student. She is also a safe figure from whom METCO students can seek help. "Academic support with Ms. Segars is the only thing that I am comfortable with," another student says. An LHS administrator acknowledges that the school is still figuring out how to encourage help-seeking behavior among METCO students. "We rely a lot at the high school level on kids coming in for extra help, so when they're not willing or able to do that, what's our response?"

One way LHS has worked to develop a stronger academic mindset among METCO students is the **African American and Latino (AAL) Scholars Program**. Developed by William Cole and based on a program from Shaker Heights, Ohio, the Scholars program is composed of high-performing African American and Latino students in tenth, eleventh, and twelfth grades. This program was originally limited to METCO students, but as Lexington has grown more diverse it has expanded to include Lexington residents as well. "Each faculty member takes four or five students and is primary adviser to them," an administrator says. "Students get a lot of support, and support each other, too." AAL Scholars attend weekly meetings where they participate in workshops and round-tables, sometimes with outside guests. The program also runs one day-long workshop each year and gave a presentation to Lexington staff last year. LHS also arranges for Scholars to visit students in lower grades, "to meet with students of color there and talk about applying to college or whatever they're going through, giving children connections with those who had similar experiences and have been successful."

Like so many programs, the AAL Scholars program stumbled before finding its footing. "At first the best scholars we had still had low GPAs, and we couldn't put anyone on a pedestal," one former teacher remembers. "So much of this is perception. If we can help METCO kids become academic stars, that changes the whole ball game for students of color." Responsibly managing the reputation of the program was difficult for students and teachers alike in early years. "We'd have tough moments in a room hashing it out, with me saying *You can't do that,*

you're reflecting on others. As a staff, we got in each other's faces plenty of times wondering, *Are we doing the right thing? Are we moving forward fast enough?"*

The AAL Scholars program has become more stable as its composition has changed to include more high-achieving METCO and Lexington students. But the question of how fast to move remains. Finding more time in the day for learning has taken its toll, on students especially. The homework load can feel overwhelming, and the commute to school is grueling. "They get up as early as 4 and 5:30 to be at the bus stop by 6:30 AM," one parent says. "It is a very long bus ride—the late bus makes it a long day." With so many academic and extra-curricular opportunities, "the challenge is balancing time between exhaustion and participation."

5. Developing Cultural Competence

As Lexington's intensive focus on instruction has begun to show results, the district continues to explore the best ways to develop more cultural competence. "There's some urgency," one administrator says, since several Lexington schools now have a majority of minority students. Indeed, many METCO students at LHS say one of their favorite things about the school is its diversity. While the district is committed to working towards more diverse leadership and faculty, cultural competence recruiting efforts are presently in different stages at different schools.

Recruiting Administrators and Teachers

A diverse faculty is critical to developing cultural competence, but thus far Lexington has had uneven success recruiting diverse candidates. Some people believe that the problem is that "there is not always a plethora of diverse candidates" and that people of color are not choosing to apply for positions in Lexington. (In general, recruitment in Lexington suffers because few teachers can afford to live in the community.)

Bowman Elementary School has made great strides in hiring people of color: 30 percent of Bowman's classroom teachers are nonwhite. One quarter of its classroom teachers are male. But there is not a shared understanding in the district about Bowman's recruitment practices. Some people working in other schools believe that Mary Anton, the Bowman principal, has recruited more diverse teachers because she "maybe has a better network from which to recruit."

Anton, who is a Latina, has not found it difficult to recruit highly qualified people of color for her staff, not just because of her network, but because her hiring requirements are different from the rest of the district's. While many candidates apply to Lexington with 3-5 years of experience and it can be helpful to hire teachers with a master's degree, Anton knows that there is great benefit in hiring smart, ambitious beginning teachers and providing them with strong training. This helps in recruitment of teachers because often the best candidates (white and non-white) will not be looking to move once they have made a commitment to a district. Although some less experienced teachers might need more training when they enter her school, Lexington's professional development apparatus is more than equal to the task.

Training Administrators and Teachers

Cultural competence is a major category in Lexington's professional learning program. In the past, Lexington teachers used to participate in EMI (now IDEAS) cultural proficiency trainings, which many found helpful, but Ash cancelled the program because there was no hard evidence that it was reducing achievement gaps. Barbara Nobles and Cheryl Crowder, METCO Elementary Social Worker, now teach an in-district training called "Cultural Aspects in Education." They also conduct workshops for schools on request. The most recent Lexington Learns day featured the issue in two workshops: "Color Blind, Color Brave," by METCO, and "Asian Youth and Their Well-Being," by a high school guidance counselor who is Asian.

At Bowman, Anton and her staff have been working on cultural competence in a focused way for three years. Bowman teachers are heavily represented in district courses. Within the school, training is anchored around the concept of a growth mindset, and teachers lead and participate in workshops and collective book reads about expectations and "difficult conversations." They provide their own PD tailored to their needs. As an example, one school administrator described how they were expanding trainings to include beliefs about math, mindsets, and gender.

A new thrust of the Bowman curriculum is exposing teachers to different cultural codes of communication from different communities of color. This enables teachers to be more aware of ways in which their meanings can be miscommunicated. "*Will you come over here to talk with me* to a white teacher and child may have a different meaning than for a Latino or black student," an administrator explains. "In the first case, it might be interpreted as *You need to come here so I can talk to you*, which is not a choice. In the second, it might be interpreted as a choice. A teacher who can adapt his or her language is mastering code-switching, which is what culture minority children have to learn how to do."

Engaging Parents

"Lexington is great. The teachers are willing to stay after school to help students."

Cultural competence extends to how schools interact with parents. Parents report that METCO Lexington is a very positive experience with high academic support and parent-friendly faculty, but they are aware of the cultural gap. Their children share awkward or embarrassing moments such as when students or teachers look to a METCO student to comment on a topic like slavery or when another student uses a racial insult.

Parents and teachers both want to improve communication. Many non-resident and resident parents from different backgrounds may not feel comfortable talking to faculty and staff about their children. Lexington teachers are not accustomed to having to proactively reach out to parents (echoing LHS's experiences with students' help-seeking behavior). "It shouldn't be just when something is wrong," one parent says. On the district end, teachers and administrators agree that they need to tailor their communication style. "School outreach has to be different, more personal," an administrator says. "You make phone calls." METCO staff can bridge the relationship, and parents are pleased with METCO's engagement work under Barbara Nobles. Many teachers and administrators feel that METCO has made it easier for them to engage parents.

There has been some progress on this front. Parents report that a single, central location for information like the Portal has helped, as well as METCO workshops on ways to engage with teachers and school staff. But cultural competence is a work in progress on both ends. "We're never going to be competent," one administrator says. "It's a journey. It's about giving people permission to say that I might not get this, helping people understand that they do have bias and it does impact their students. It's about awareness. We can talk about this and we can grow."

Conclusion

Students, parents, teachers, counselors, administrators, and the community at large have embraced enormous changes since Paul Ash first saw the METCO SPED numbers. Teachers, administrators, and students have assimilated many of these changes into standard practice, but as a principal says, "It's a journey." In the years to come, leaders in Lexington will continue to refine their programs and hunt for promising new ideas. As Lexington's quest to achieve both excellence and equity evolves in coming years, the following commitments seem worth keeping.

- Continue to:
  - Support teacher collaboration and professional development from the highest level of official authority in the district.
  - Expand and protect integrated, whole-district professional learning for all adults, not only teachers.
  - Protect extended learning time in elementary schools.
  - Design and implement an expanded array of supplemental supports for middle and high school students, offering an array of intervention strategies before, during, and after the school day, serving whatever students may need them.
  - Use school data teams to monitor student performance and identify students not meeting learning expectations. Stay committed to the design and delivery of classroom interventions for students who need them.
  - Build capacity for culturally competent communication among administrators, teachers, students, and parents.
- Work to diversify district leadership and faculty. Take up recruitment as an improvement priority, the way collaborative teaching has been a priority. Learn systematically from what is working inside the district and study successes in other places.
- Explore why improvements have been larger and more stable at some times, and in some subjects, more than in others. Consider whether there is balance in support across subjects. For example, literacy seems to be a higher priority at elementary level (e.g., students can get twice as much literacy help during intervention blocks as

math help). How can supports in all subjects be tracked and monitored and, if necessary, strengthened?

- While racial proficiency gaps in Lexington have been dramatically narrowed—even closed in some instances—there remain large racial gaps at the advanced level. Hence, the work is not done.

As we complete this report, we are aware that Superintendent Ash is departing and that new leadership will soon be in place. There is much in Lexington to build upon and much still remaining to do. We wish Paul Ash, the new superintendent, and the Lexington School Community the greatest success as this new phase begins.

Appendices

References

The Research Team

List of Interviews

References

Ash, P. B., & D'Auria, J. (2013). School systems that learn: Improving professional practice, overcoming limitations, and diffusing innovation. Corwin and Learning Forward.

Action Plan for Equity and Excellence (May 5, 2009), Achievement Gap Task Force, Lexington Public Schools

Longitudinal MCAS and SAT Comparisons for Lexington High School and Nearby Communities (December 2, 2014), Lexington Public Schools

Professional Development Overview (December 16, 2009), The Professional Development Committee, Lexington Public Schools

Progress Report (May 11, 2010), Equity and Excellence Committee, Lexington Public Schools

The Achievement Gap in the Lexington Public Schools: Documentation, Research, and Recommendations (January 2008), Vito A. LaMura

The Research Team

Ronald Ferguson

Ronald Ferguson's teaching, consulting, and research over more than three decades have focused on reducing economic and educational disparities. He is the faculty co-chair and director of the Achievement Gap Initiative (AGI) at Harvard University and has also served as the faculty co-director of the Pathways to Prosperity Project at the Harvard Graduate School of Education. Outside of Harvard, Ferguson participates in a variety of research and policy advisory roles. These have included committees at the National Research Council, the U.S. Department of Education, national civic and philanthropic institutions, and advising many states and localities. He is the creator of the Tripod Project for School Improvement and, most recently, co-founder of Tripod Education Partners, Inc. After 31 years on the full-time faculty at Harvard, he transitioned into an adjunct role beginning in the fall of 2014, while remaining a Research Fellow at the Kennedy School's Malcolm Wiener Center for Social Policy. Ferguson earned an undergraduate degree from Cornell University and PhD from MIT, both in economics.

Ann Ballantine

Ann has over thirty years of experience in consulting and management roles including finance, strategic planning, research, communications, and technology. Since 2006, she has managed and contributed to diverse AGI projects including conferences, reports, website, and communications. She holds an MBA in finance from New York University's Stern School, an MA in Social Sciences from the University of Chicago, and a BA cum laude in History from Boston University.

Rachel Bradshaw

Rachel recently completed doctoral coursework in education leadership and policy at Boston University, where she also earned Massachusetts licensure as a high school principal. Before returning to graduate school, she taught English, humanities, and debate classes and served as an after-school debate coach in Boston Public Schools. Rachel holds an undergraduate degree in English from Yale and a master's degree in teaching and curriculum from Harvard.

Charlotte Krontiris

Charlotte is a researcher and writer working on topics in education, politics, and business in the US. She has conducted research for Google, Harvard Kennedy School and Harvard Business School, and her writing has appeared in the Harvard Business Review and the Hypocrite Reader. Charlotte holds an AB and AM from the University of Chicago.

List of Interviews

Interview	First Name	Last Name	Current Position	Role (s)
Phone	Berenice	Albino	Parent	Served on the PTO Board, METCO Executive Parent Board
In person	Mary	Anton	Bowman Principal	LLC, implementation
In person	Adrenna	Antreasian		Coordinated the Freshmen Achievers Program during
In person	Paul	Ash	Superintendent	AGTF
Phone	Mary	Barry	Department Head Diamond Teacher	
Phone	William	Cole	LHS Faculty	AGTF, EEC
Phone	Meg	Colella	Bridge Principal	EEC, MELP
Phone	Sheryl	Crawford	Parent	METCO Executive Parent Board Co- Chair 2010-2014
in person	Cheryl	Crowder	Elementary Social Worker	Staff METCO
Phone	Eddie	Davey	Clarke Teacher	EEC, Montgomery County Visit
Phone	Dane	Despres	Middle School Department Head	Montgomery County Visit
In Person	Robyn	Dowling Grant	ELL Coordinator	LLC, MLC
Phone	LaDawn	Dubose	Parent	AGTF, EEC, METCO
In Person	Sharon	FitzGerald	K-5 Math Specialist Bowman	AGTF
Skype	Steven	Flynn	Fromer Clarke Middle School Principal	AGTF Co-Chair, EEC, Implementation, Established the
Phone	Gail	Grimes	K-5 Math Specialist Hastings	EEC, Montgomery County Visit
In person	Joanne	Hennessy	Retired	2009 PD Committee (PDC) Chair
Phone	William	Huff	Parent	AGTF, EEC, METCO Parent Mentor
Phone	Kevin	Kelly	Head Math Dept LHS	Math
In Person	Vito A.	LaMura	Retired	former Diamond Middle School teacher, and Lexington Education Association President, Author
Phone	Laura	Lasa	LHS Principal	Montgomery County Visit
Phone	Louise	Lipsitz	Hastings Principal	Implementation
Phone	Thomas	Martellone	Fiske Principal	
Phone	Kathleen	Martin	Harrington Teacher	EEC
Phone	Kathleen	McCarthy	K-5 Literacy Department Head	AGTF, EEC, Curriculum, LLC, Implementation,
In person	Elaine	Mead	Harrington School Principal	AGTF, Implementation
In person	Anna	Monaco	Clarke Middle School Principal	AGTF, EEC

Interview	First Name	Last Name	Current Position	Role (s)
In person	Phyllis	Neufeld	LEA President	AGTF, EEC, Montgomery County Visit
In person	Barbara	Nobles	K-12 METCO Academic Director	METCO
In person	Carol	Pilarski	Assistant Superintendent	COA, PDC, Full Day K implementation (2009)
In person	Jesse	Richardson	Estabrook Teacher	EEC, Montgomery County Visit
In person	Gretchen	Segars	METCO staff	LHS Academic Support Teacher, students learning style,
Phone	Gary	Simon	retired LHS Faculty	Former the Math Dept. Chair
In person	Len	Swanton	Head of Professional Development	EEC, former Bowman teacher
Phone	June	Tabb	Parent	METCO Parent Education Program
Phone	Sandra	Trach	Estabrook principal	EEC, Implementation
Phone	Karen	Tripoli	K-5 Mathematics Department Head	Curriculum, MLC, Implementation, Kindergarten Task
Phone	Amanda	Turkanis	Fiske Teacher	EEC
Phone	Jennifer	Wolcott	LHS Faculty	AGTF
Phone	Kari	Zbikowski	Fiske Faculty	Montgomery County Visit

The Achievement Gap in the Lexington Public Schools:

Documentation, Research, and Recommendations

Submitted by Vito A. LaMura

to

Dr. Paul B. Ash, Superintendent of Schools

January 2008

Table of Contents

Introduction…….…… 3

Establishing the Gap: Local Data…….. 6
MCAS……6
AYP……..10
Lexington Grade 1-2 Math Assessments…….……10
Lexington Grade 1-2 Reading Language Arts Assessments…….11
Lexington Secondary School Assessment Data……..11
METCO Over-Representation in SPED……12

Conversations and Surveys: Parents, Students, and LPS Staff…… 16
Parent, Student, & LPS Staff Survey Responses……16
LPS Staff Conversations……..19

Research: Gap-Closing Practices, Schools, and Practitioners……22
Books……..22
Research Studies……..…….. 24
Professional Journals……30
Gap Closers……32

Summary and Recommendations……..…..35

Appendix…… 41

INTRODUCTION

During the 2006-2007 school year, the Superintendent of Schools, Dr. Paul Ash, learned of the significant over-representation of METCO students in special education programs. Alarmed, he asked two important questions: How well and how appropriately are the Lexington Public Schools meeting the needs of Boston students? Are METCO students achieving at levels comparable to the general population of Lexington students? In order to answer these questions, he commissioned a research study. For almost three months, from late August 2007 to his retirement in mid-November 2007, Vito LaMura, former Diamond Middle School teacher and Lexington Education Association President, sought the answers to the Superintendent's questions. This task involved surveying and interviewing scores of school community members from administrators to students, gathering and analyzing all available student achievement data, comprehensively examining the best available national research into closing achievement gaps, and finally making both short and long-term recommendations for decision-makers to consider.

This report will address the following:

1. ***Documenting the extent of the achievement gaps among the racial subgroups in the Lexington Public Schools.*** Although multiple measures of achievement will be examined, this report uses achieving at *Proficient* or higher on MCAS tests as a benchmark. Therefore, when racial subgroups are compared using MCAS, the percentages of students BELOW PROFICIENT is a key indicator.
2. ***Conversations with the Lexington School Community.*** A number of parents, students, faculty, and administrators were asked why they thought the achievement gaps in the LPS were so persistent and so significant. Their responses and their recommendations for how to close the gaps are all rank ordered and/or summarized in the report.
3. ***An examination of the research.*** There are many schools where the achievement gaps are being closed if not eliminated. This report will examine the common characteristics of these gap closing schools and will also summarize recent research into the best practices by which to accomplish gap closing.
4. ***Recommendations***. The report will conclude with a set of recommendations for LPS decision-makers to consider as resources are applied over time.

All available assessment data - from MCAS results at 7 different grade levels, to local assessments of literacy and mathematics skills in grades 1-2, to under-representation in secondary school higher level courses, to high school grade point averages, to over-representation in special education – all data confirm a large achievement gap between Lexington's METCO students (0ver 93% African American and Hispanic) and the Lexington-resident White and Asian students.

There are, of course, Lexington-resident African American and Hispanic students. Whenever the available achievement data allows resident and non-resident African American and Hispanic students to be disaggregated, I will clearly note that in the report. However, much of this report will focus on the METCO students, who are in a unique program, more easily identified and statistically tracked. For decades the Lexington Public Schools has embraced METCO students and has, at least in word and print and at varying times with more or less emphasis, made closing the gap between METCO students' achievement and resident students' achievement an explicit

goal at both the district and the individual school levels. These efforts, though certainly well intentioned, have, by and large, not succeeded in closing the achievement gap.

Lexington is hardly unique in its lack of progress in this area. Kati Haycock, President of the Education Trust (a national organization working to promote high achievement of all students) points out that in the United States by the time African American and Hispanic children reach the age of 17, they typically have been taught only to the same level as 13-year-old white children. In reality, the plural *gaps* should be used to describe the differences in African American and Hispanic achievement. Nationally, these gaps exist not only in standardized test scores but also in areas such as Advanced Placement course participation and test taking, high school graduation rates, college entrance and graduation rates, and earned income.

In Massachusetts, when the recently encouraging statewide test data is disaggregated, the gap persists. Jeffrey Nellhaus, the Acting Commissioner of Education, pointed out in his forward to the summary of 2007 MCAS results, "The achievement gap between the percent of white students and African American and Hispanic students scoring *Proficient* and higher remains a serious concern for families and students, policymakers, and educators." Some slight narrowing of the gap was evident in English Language Arts, but the gap in mathematics appears to have widened in some grades, as gains made by white students outpaced gains made by African American and Hispanic students.

On the 2007 NAEP tests (National Assessment of Educational Progress, a.k.a. *The Nation's Report Card*) Massachusetts ranked first alone among all states on three of the four tests (grade 4 reading and math; grade 8 math), and tied for first on the fourth NAEP test (grade 8 reading). However, between 2005 and 2007 in Massachusetts, there were no significant changes in the performance gaps between white and African American students in reading and mathematics at grades 4 and 8. Similarly, the performance gap change between white and Hispanic students did not change significantly between 2005 and 2007. Significantly higher percentages of African American and Hispanic students still scored at *Basic* levels; whereas, significantly higher percentages of white students scored at *Proficient* and *Advanced* levels.

The gap persists in the nation, in our state, and in the Lexington Public Schools. This is unacceptable and correctable. Our core beliefs as public educators must guide our work. The following beliefs and assumptions must be fundamental to any gap-closing efforts:

- Eliminating the achievement gap is not only the right thing to do, but it is essential, given the core purposes of the Lexington Public Schools: (1) academic excellence, (2) respectful and caring relationships, and (3) a culture of reflection, conversation, collaboration and commitment to continuous improvement.
- The METCO program was long ago woven into the fabric of the Lexington Public Schools, and it continues to contribute mightily and positively to our diversity. It is a program to be cherished and supported to the fullest extent possible.
- Academic ability is a developed (and developable) ability, one that is not simply a function of biological endowment or a fixed aptitude.
- Understanding the fact that academic ability is malleable, we will close the gaps in academic achievement among different groups of students when we have effectively taught all of our students how to learn by using high-quality teaching and instruction of rigorous, relevant curriculum in every classroom.

- Strong, trusting, and encouraging teacher-student relationships will contribute to improving achievement for all students, but even more so for African American and Hispanic students, who may have internalized the insidious societal message that low achievement indicates low ability.
- While recognizing the crucial role that parents, community, and culture play in educating all students, the primary focus of our schools must be on what we can control and actually do.
- Schools that concentrate on how their practices affect all students will be more productive and successful than those which blame students, families, poverty, cultural differences, or race for underachievement. Schools can and must have a powerful, positive impact on the achievement of all students.
- We must all continually examine our beliefs and change our practices to counteract the contemporary and historic impacts of racism and discrimination.
- To improve student achievement for all students and thereby close the achievement gap, we must identify and change those aspects of our school culture that impede our gap-closing work.
- With African American and Hispanic children achieving at significantly lower levels than their white and Asian peers, we cannot choose to be color-blind. Emphasizing race in educational discussions and activities may seem controversial or counterintuitive, but it is far more effective than the alternative if our goal is closing the achievement gap.

Can we know if these beliefs, once turned into policies and actions, will close the achievement gap? Can it be done? Can schools help all children learn at high levels?

YES, is the answer to all 3 questions. There are schools all across the country where these gaps are being narrowed and closed. Karin Chenoweth, in her recently published It's Being Done: Academic Success in Unexpected Schools***,*** writes about 15 schools where the gap-closing work is highly successful. There are recent studies, scholarly papers, and professional articles, which document the work and lay out the characteristics and practices of gap-closing schools. It must be noted that there is no quick fix, no single intervention, which we in the Lexington Public Schools can readily adopt to solve this problem. However, it can be done, if we choose to do so. **Focus, will, and leadership cannot be overstated as essential elements to our closing the gaps**. The good news is that many proven practices are being implemented in the LPS even as this report is being written - more on those practices later in the report.

Before turning to the promising research and the making of recommendations, however, let me share with you the achievement data, which confirm the achievement gap in the Lexington Public Schools, and also the feedback I have received from students, parents, and LPS staff. Note that the following data is not intended to be completely comprehensive look at all possible measures of student achievement. Rather, my purpose is to simply establish the fact that there is an achievement gap in Lexington.

ESTABLISHING THE GAP: LOCAL DATA

MCAS Results

To illustrate the achievement gap between African American / Hispanic students and White / Asian students, the tables below indicate the percentages of students in a particular subgroup (African American, White, Asian, Hispanic) who scored BELOW PROFICIENT on the last 5 years' MCAS English Language Arts (ELA) assessments in the various grades where the test was given (*NT* in the charts indicates no test was given in that grade for that year). A student's MCAS score falls into one of 4 categories: Advanced, Proficient, Needs Improvement, Failure/Warning. ***One of our gap-closing goals must be to get all students to Proficient or Advanced as measured by MCAS.*** For illustrative purposes only, the last column shows the difference (the gap) between two of the subgroups - the White students and the African American students.

LEX	ELA MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 3	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	59%	14%	18%	41%	56%	50%	45%
2004	45%	14%	11%	42%	42%	25%	31%
2005	37%	20%	14%	-	42%	50%	17%
2006	48%	21%	18%	36%	56%	50%	27%
2007	56%	16%	13%	27%	48%	27%	40%

LEX	ELA MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 4	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	50%	13%	10%	60%	53%	-	37%
2004	53%	14%	10%	45%	55%	30%	39%
2005	52%	19%	10%	54%	56%	46%	33%
2006	48%	28%	16%	-	60%	44%	20%
2007	58%	17%	13%	47%	60%	37%	41%

LEX	ELA MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 5	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	NT	NT	NT	NT	NT	NT	
2004	NT	NT	NT	NT	NT	NT	
2005	NT	NT	NT	NT	NT	NT	
2006	48%	12%	6%	41%	43%	-	36%
2007	63%	14%	6%	18%	43%	28%	49%

LEX	ELA MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 6	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	NT	NT	NT	NT	NT	NT	
2004	NT	NT	NT	NT	NT	NT	
2005	NT	NT	NT	NT	NT	NT	
2006	36%	8%	11%	36%	42%	-	28%
2007	27%	8%	6%	46%	34%	-	19%

LEX	ELA MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 7	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	34%	10%	4%	27%	38%	-	24%
2004	42%	8%	7%	25%	42%	-	34%
2005	36%	8%	3%	-	38%	-	28%
2006	51%	9%	5%	23%	37%	-	42%
2007	35%	7%	5%	21%	39%	-	28%

LEX	ELA MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 8	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	NT	NT	NT	NT	NT	NT	
2004	NT	NT	NT	NT	NT	NT	
2005	NT	NT	NT	NT	NT	NT	
2006	20%	6%	3%	-	28%	-	14%
2007	26%	5%	2%	18%	29%	-	21%

LEX	ELA MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 10	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	42%	9%	14%	-	44%	-	33%
2004	50%	11%	7%	-	46%	-	39%
2005	50%	8%	13%	9%	32%	70%	42%
2006	35%	7%	6%	14%	42%	8%	28%
2007	42%	5%	4%	8%	35%	-	37%

Below are the MCAS results in mathematics for the past 5 years at each grade level:

LEX	Math MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 3	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	NT	NT	NT	NT	NT	NT	-
2004	NT	NT	NT	NT	NT	NT	-
2005	NT	NT	NT	NT	NT	NT	-
2006	68%	21%	14%	45%	62%	43%	47%
2007	64%	19%	10%	40%	46%	10%	45%

LEX	Math MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 4	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	75%	25%	17%	67%	64%	-	50%
2004	66%	28%	6%	54%	67%	5%	38%
2005	82%	25%	11%	55%	57%	42%	57%
2006	74%	33%	20%	-	64%	50%	41%
2007	77%	23%	10%	47%	66%	50%	54%

LEX	Math MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 5	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	NT	NT	NT	NT	NT	NT	-
2004	NT	NT	NT	NT	NT	NT	-
2005	NT	NT	NT	NT	NT	NT	-
2006	67%	21%	9%	36%	63%	-	46%
2007	58%	17%	3%	27%	45%	14%	41%

LEX	Math MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 6	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	64%	21%	15%	50%	64%	-	43%
2004	64%	23%	7%	-	60%	-	41%
2005	57%	16%	9%	40%	53%	-	41%
2006	75%	21%	7%	45%	66%	-	54%
2007	54%	17%	5%	46%	53%	-	37%

LEX	Math MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 7	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	NT	NT	NT	NT	NT	NT	-
2004	NT	NT	NT	NT	NT	NT	-
2005	NT	NT	NT	NT	NT	NT	-
2006	73%	24%	12%	61%	64%	-	49%
2007	66%	21%	8%	50%	62%	-	45%

LEX	Math MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 8	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	79%	26%	3%	63%	66%	-	53%
2004	81%	24%	10%	50%	61%	-	57%
2005	69%	21%	9%	63%	60%	-	48%
2006	64%	25%	5%	-	69%	-	39%
2007	63%	20%	7%	43%	62%	-	43%

LEX	Math MCAS: % of Students *BELOW PROFICIENT*						THE GAP between
Grade 10	Afr. Am'n.	White	Asian	Hisp.	w/ Disab.	LEP	White & Afr. Am'n.
2003	74%	25%	13%	-	58%	-	49%
2004	75%	20%	6%	-	61%	-	55%
2005	43%	10%	2%	27%	32%	10%	33%
2006	48%	10%	5%	28%	42%	8%	38%
2007	28%	5%	1%	16%	35%	-	23%

The above MCAS data confirms that on this measure of achievement large gaps persist over time with one notable exception – grade 10 math where the gaps are being closed over time and among all sub-groups. Later in this report, I will take a closer look at what is being done in the math department at LHS which seems to be having sustained success in closing the MCAS gap.

With the cooperation of the Computer Center, I was able to separate out from the 2006 and 2007 grade 10 MCAS results the scores of Lexington-resident African American and Hispanic students. It must be noted here that I did not do more of this because, given our data systems and available support personnel, it is very difficult and time consuming to gather this data.

% of 10th Graders BELOW PROFICIENT on 2006 and 2007 MCAS				
LEXINGTON	**ELA 06**	**MATH 06**	**ELA 07**	**MATH 07**
All African American	35%	48%	42%	28%
ALL Hispanic	14%	28%	8%	16%
Lex. Resident Afr. Am'n/Hispanic	31%	31%	19%	26%
White	7%	10%	5%	5%
Asian	6%	5%	4%	1%

The number of students in the All African American, All Hispanic, and Lexington Resident African American/Hispanic subgroups is small. Therefore, definitive conclusions should not be drawn. That being said, **there are significantly fewer White and Asian students below proficient than there are African American and Hispanic students, regardless of address.**

In the appendix of this report, I have included much more MCAS data:

- Two bar graphs, one for ELA and one for math, using the BELOW-PROFICIENT data presented above for the 4 subgroups from 2003 – 2007. (P. 41)

- Comparative 2006 and 2007 MCAS BELOW-PROFICIENT results for Lexington, Boston, Wellesley, Weston, Brookline, Newton, Belmont, Bedford, and Concord-Carlisle. The data are reported for each grade level at which MCAS is administered for each of the 4 subgroups: African American, White, Asian, and Hispanic. The comparative data do show that the percentages of BELOW-PROFICIENT students in Boston, in the aggregate, are significantly greater than in Lexington. The data also show that our comparable communities with METCO programs are also experiencing significant achievement gaps. (PP. 42-48)

- 2007 MCAS BELOW-PROFICIENT results for Lexington across the grades for the 4 subgroups, but with the actual number of students tested in each subgroup. (P. 48)

- Two bar graphs, one for ELA and one for math, showing the 2007 BELOW-PROFICIENT data for the 4 subgroups in the elementary grades, in middle school, and in grade 10. (P. 49)

- A table of grade 10 METCO students' MCAS data in 2006 and 2007 which disaggregates the scaled scores by gender. The scores indicate no significant differences. (P. 50)

AYP (Adequate Yearly Progress)

AYP is required by *the No Child Left Behind* (NCLB) federal statute. All subgroups in a school district (Limited English Proficient, Special Education, Low Income, African American, Asian/Pacific Islander, Hispanic, Native American, White) must make AYP. To make AYP in 2007, for example, a student group must meet a student participation requirement, either the State's 2007 performance target for that subject or the group's own 2007 improvement target, and an additional attendance or graduation requirement. Overall, as one would expect, Lexington receives a very high performance rating when AYP is considered in the aggregate.

However, when the data is disaggregated by grade spans (3-5, 6-8, 9-12) the achievement gap does make a limited appearance. In the grade 3-5 span for English Language Arts, the African American subgroup did not meet the State's performance target, nor did this group meet its own improvement target. In the grade 3-5 span for mathematics, the African American subgroup did not meet the State's performance target, but it did meet the improvement target.

Lexington Math Assessments, Grades 1 and 2: Fall 2007

The table below shows the most recent math assessment scores for METCO and non-METCO students in grades 1 and 2. The "score" is the sum of three assessments on a 100-point scale with the best score being "0." Children with the highest scores are most in need of intervention by the teacher and/or the math specialist. Grade 1 scores are the sum of the teacher's recommendation, a counting assessment, and a skills checklist. The grade 2 scores are the sum of a skills checklist, the recommendation of the teacher, and the recommendation of the math specialist.

Score	METCO	%	Non-METCO	%
0-30	8	33.3%	730	79.7%
35-65	7	29.2%	118	12.9%
70-100	9	37.5%	68	7.4%
Totals	**24**	**100.0%**	**916**	**100.0%**

The number of METCO students is too small to draw definitive conclusions; however, a significantly higher percentage of the METCO students assessed in grades 1 and 2 received scores indicating the need for special intervention in math.

NOTE: This mathematics assessment data was gathered in such a way that I was able to disaggregate the Lexington-resident African American and Hispanic students in grades 1 and 2. Again, the number of students is small, but here are the results:

Score	Lex. Resident Afr. Am'n/Hispanic	%
0-30	25	64.1%
35-65	6	15.4%
70-100	8	20.5%
Totals	**39**	**100.0%**

Again, definitive conclusions cannot be drawn, but there are higher percentages of Lexington-resident African American/Hispanic students with scores indicating intervention needs than there are among the population with only the METCO students disaggregated.

Reading Language Arts Assessments, Grades 1- 2: Fall 2007

Lexington students in grades 1 and 2 are also assessed on a 100-point scale in reading and language arts using very specific diagnostics such as an adapted DeFord Dictation, Nonsense Word Lists, and Scott Foresman Placement Tests. As in math, the higher the score a student receives, the more in need of special intervention. "0" is the best possible assessment. Here is a table with the most recent results:

Score	Non-METCO	%	METCO	%
0-30	635	74.2%	14	51.9%
35-65	128	15.0%	6	22.2%
70-100	93	10.9%	7	25.9%
	856*		27	

* 1 second grade class missing

The number of METCO students is too small to draw definitive conclusions; however, a significantly higher percentage of the METCO students assessed in grades 1 and 2 received scores indicating the need for special intervention in reading and language arts.

Lexington Secondary Schools Assessment Data

In addition to the sixth, seventh, eighth, and tenth grade MCAS data already presented, one other general measure of student achievement at Lexington High School is a student's unweighted GPA (grade point average). At the end of the 2006-2007 school year, the average GPA of the 60 METCO students at LHS was **2.17** (26 girls averaged 2.34 and 34 boys averaged 2.01). The average GPA for the other 1,896 students was **3.10.**

If all of last year's course enrollments at LHS are separated out between METCO students' selections and all other students' selections, it is clear that the most challenging coursework is not often a METCO student's choice. Most courses are unleveled, but among those courses that are leveled, it is clear that METCO students are under-represented in Honors/AP courses. METCO students enrolled in an honors/AP course in only 9 out of 709 total enrollments or 1.3% of the time. All other students at LHS enrolled in an honors/AP course 14.8% of the time. Here are the numbers:

Student Course Selections at LHS 2006-2007

METCO		Non-METCO
74.6%	**Unleveled**	63.6%
1.3%	**Honors**	14.8%
19.7%	**Level 1**	20.6%
5.9%	**Level 2**	1.0%

When a similar examination of student course selections at LHS was made in 2004 and 2005, the findings were very similar.

At our middle schools, mathematics is the only team, academic subject that is leveled. In grades 7 and 8, there are three levels: Extended, Advanced and Intermediate. At Clarke Middle School, 30% of seventh graders are in the highest level, Extended Math course, but that includes no METCO students. At Clarke, 56% of all seventh graders are in Advanced Math; 27% of the METCO seventh graders are among this group. In the eighth grade at Clarke, 49% of all students are in Extended Math - Algebra 1; 1 of 16 METCO eighth graders (6%) is among them. Forty percent of all Clarke eighth graders are in Advanced Math - Algebra 1A; 4 of 16 METCO eighth graders (25%) are in this course.

At Diamond Middle School, 24% of all seventh graders are in Extended Math; among these students are 2 of 12 METCO seventh graders (17%). Seventy percent of the seventh graders at Diamond are in Advanced Math; among these students are 7 of 12 METCO seventh graders (58%). In the eighth grade at Diamond, 68% of all students are in Extended Math - Algebra 1; there are no METCO students in this level. Twenty-eight percent of all Diamond eighth graders are in Advanced Math - Algebra 1A; 11 of 14 METCO eighth graders (79%) are in this course.

In the aggregate at our middle schools, 28% of all seventh graders and 9% of METCO seventh graders are in Extended Math. 63% percent of all seventh graders and 43% of METCO seventh graders are in Advanced Math. In grade eight, 58% of all eighth graders and 3 % of METCO eighth graders are in Algebra 1. 34% of all eighth graders and 60% of METCO eighth graders are in the Advanced Math course, Algebra I A.

METCO Student Over-Representation in Special Education

Another disturbing manifestation of the achievement gap, or perhaps how we choose to deal with it, in the Lexington Public Schools is the frequency with which METCO students are determined to need special education services. Here are the numbers:

- Currently, there are 264 METCO students with 88 of them (33.3%) on special education IEPs.
- Those 88 SPED students are distributed in the following grades and schools:
  - 3rd Grade: 4
  - 4th Grade: 5
  - 5th Grade: 13
  - 6th Grade: 6
  - 7th Grade: 8
  - 8th Grade: 17
  - 9th Grade: 14
  - 10th Grade: 9
  - 11th Grade: 5
  - 12th Grade: 7

Elementary: 22 (25%)
Middle School: 31 (35.2%)
High School: 35 (39.8%)

School	Total METCO	METCO in SPED	%
LHS	72	35	48.6%
CL	33	17	51.5%
DI	41	14	34.1%
BO	20	5	25.0%
BR	21	3	14.3%
FI	21	7	33.3%
HR	19	3	15.8%
HS	16	1	6.3%
ES	21	3	14.3%

- The current METCO SPED students original referral data are as follows:

  - Referred from **BOWMAN: 24 (27.3%)**
    - Referred in grade 1: 1
    - Referred in grade 2: 11
    - Referred in grade 3: 2
    - Referred in grade 4: 8
    - Referred in grade 5: 2

    6 were referred before FY 01.
    12 were referred from FY 01 - FY 05.
    4 were referred during FY 06 - FY 07.

  - Referred from **BRIDGE: 13 (14.8%)**
    - Referred in grade 1: 4
    - Referred in grade 2: 2
    - Referred in grade 3: 1
    - Referred in grade 4: 6
    - Referred in grade 5: 0

    4 were referred before FY 01.
    6 were referred from FY 01 - FY 05.
    3 were referred during FY 06 - FY 07.

  - Referred from **ESTABROOK: 10 (11.4%)**
    - Referred in grade 1: 4
    - Referred in grade 2: 2
    - Referred in grade 3: 3
    - Referred in grade 4: 1
    - Referred in grade 5: 0

    3 were referred before FY 01.
    6 were referred from FY 01 - FY 05.
    1 was referred during FY 06 - FY 07.

- Referred from **FISKE: 18 (20.5%)**
  - Referred in grade 1: 5
  - Referred in grade 2: 8 — 0 were referred before FY 01.
  - Referred in grade 3: 3 — 10 were referred from FY 01 - FY 05.
  - Referred in grade 4: 1 — 8 were referred during FY 06 - FY 07.
  - Referred in grade 5: 1

- Referred from **HARRINGTON: 8 (9.1%)**
  - Referred in grade 1: 1
  - Referred in grade 2: 1 — 3 were referred before FY 01.
  - Referred in grade 3: 4 — 3 were referred from FY 01 - FY 05.
  - Referred in grade 4: 2 — 2 were referred during FY 06 - FY 07.
  - Referred in grade 5: 0

- Referred from **HASTINGS: 11 (12.5%)**
  - Referred in grade 1: 2
  - Referred in grade 2: 3 — 3 were referred before FY 01.
  - Referred in grade 3: 3 — 7 were referred from FY 01 - FY 05.
  - Referred in grade 4: 2 — 1 was referred during FY 06 - FY 07.
  - Referred in grade 5: 1

- Referred from **DIAMOND: 0**.

- Referred from **CLARKE: 0**

- Referred from **LEXINGTON HIGH SCHOOL: 2 (2.3%)**
  - Referred in grade 9: 2 — Both were referred during FY 06 – FY 07.

- The disability distribution among the 88 METCO SPED students is as follows:
  - COMMUNICATION 18
  - EMOTIONAL 11
  - HEALTH 8
  - MULTIPLE DISABILITIES 4
  - NEUROLOGICAL 7
  - INTELLECTUAL 2
  - SPECIFIC LEARNING DISABILITY 38

NOTE: The appendix includes a table indicating when and from where all METCO sped students were referred and placed on IEPs. (P. 50)

The overwhelming majority of METCO students on IEPs are referred in grades 1-3 (68.2%). Why are METCO students so over-represented in special education programs (33.3% versus about 18% of the non-METCO student population)? What are the reasons behind the widely varying referral rates among the different schools? What programs, supports, and interventions are needed for our METCO students in order to reduce their representation in SPED to levels similar

to the general school population? What effect does being placed on an IEP have on teacher, student, and parent expectations and subsequent academic achievement?

These are all questions that are worthy of further consideration and study. Later in this report, an examination of many of the promising practices and characteristics of gap-closing schools and summaries of conversations with LPS staff may well point the way toward reducing this over-reliance on special education programs to provide struggling METCO students with necessary services.

CONVERSATIONS AND SURVEYS: PARENTS, STUDENTS and L.P.S. STAFF

No examination of the achievement gap issue in the Lexington Public Schools would be complete or credible without carefully listening to the stories and opinions of the students, parents, and education professionals in and from both Lexington and Boston.

On October 16, 2007, at the Lexington School Committee Meeting in Boston, METCO parents and LPS staff in attendance were given the opportunity to complete a survey after hearing presentations which included some startling MCAS data to illustrate the significant achievement gap between White/Asian students and African American/Hispanic students. That survey data and the specific information gathered in the conversations that took place in the breakout group after the presentations were carefully analyzed for the frequency of similar responses. Each respondent was asked to identify his/her role (METCO parent, teacher, administrator, student, etc.) to allow for more discriminating analysis of the responses.

Teachers and other education professionals who were not able to attend the Boston meeting were also given the opportunity to respond to the same questions via the LEA Conference in First Class. Their responses were added to the analysis of staff responses gathered at the Boston meeting.

Over the past 2.5 months, METCO Director, Cheryl Prescott-Walden and I were also able to meet with three small groups of high school METCO students. Middle School METCO Counselor, Gail Cody, and I also met with two groups of middle school METCO students. The students completed surveys and then participated in guided discussions. Their written and oral responses were also carefully analyzed.

One of the questions asked of all these groups was, of course, **what they thought were the reasons for the achievement gap**. Below are their responses after first being rank ordered for frequency and then separated into categories: factors over which the schools had control and external factors, which were beyond the schools' control. Some of the responses, which did not fit neatly into either category, were placed in both columns. For example, "Insufficient or lack of parental involvement" is somewhat susceptible to LPS interventions but also somewhat uncontrollable. The lists are ordered from the most frequent response to the reasons with the fewest responses. No single-respondent reasons were included in the lists.

METCO Parent Responses

Factors Susceptible to LPS Interventions in Rank Order (39 METCO Parents)

1. Insufficient or lack of parental involvement
2. Some parents' lack of expertise/strategies to provide effective academic support
3. Students' lack of sufficient time to do schoolwork
4. Ineffective teaching styles and strategies
5. Homework issues: incomplete, undone, misunderstood, no help

6. Teachers' communication, conscious and unconscious, of low expectations
7. Poor study habits and skills
8. Lack of awareness and/or ineffective response to cultural differences
9. Students' lack of confidence in academic pursuits
10. Peer pressures: social relationships over academic pursuits, high achievement not valued
11. Weak reading skills, especially comprehension
12. Students' lack of test-taking skills
13. Insufficient teacher communication with parents
14. Students' attitudes: academics not a priority, high achievement not valued, doing only what is necessary
15. Teachers' Insufficient personal involvement with students
16. High pressure academic environment at LHS
17. Tardy and/or incomplete identification of students' learning problems

External, Uncontrollable Factors in Rank Order (39 METCO Parents)

1. Parents' educational level
2. Insufficient or lack of parental involvement
3. Students' lack of sufficient sleep
4. Family problems and difficulties
5. Parents' lack of time due to work responsibilities
6. Standardized test bias, especially in vocabulary
7. Insufficient parent communication with teachers
8. Ineffective parental disciplining of children
9. Quality of early childhood education
10. Immigrant parents' lack of English skills
11. Parents' low expectations; education is not the number one priority for their children

LPS Staff Responses

Factors Susceptible to LPS Interventions in Rank Order (31 Staff Members)

1. Inadequate system supports for struggling students
2. Teachers' communication, conscious and unconscious, of low expectations
3. Insufficient teacher communication with parents
4. Students' and parents' low expectations
5. Students' attitudes: academics undervalued, intelligence is fixed
6. Ineffective/insufficient use of data to drive instruction
7. LPS over-reliance on SPED
8. Weak literacy skills, especially vocabulary & comprehension
9. Lack of mentors/role models for students
10. LPS curriculum with excessively high expectations
11. Inadequate early interventions
12. Inconsistent achievement standards
13. Institutional racism

14. Inadequate professional development
15. Teachers unfamiliarity with varied learning styles
16. Teachers' lack of cultural awareness
17. Inadequate, personal staff involvement with students

External, Uncontrollable Factors in Rank Order (31 Staff Members)

1. Families' lack of access to outside resources
2. Distance from Lexington: loss of time; difficulty in attending conferences etc.
3. Family income
4. Insufficient parent communication with teachers
5. Difficult family lives
6. Students' and parents' low expectations
7. Students' attitudes: academics undervalued, intelligence is fixed
8. Parents' work ethic
9. Students' pre-LPS academic preparation

METCO Students' Responses

Factors Susceptible to LPS Interventions in Rank Order (22 METCO Secondary Students)

1. Student lack of effort and attentiveness
2. Student belief that school is not a number one priority
3. Insufficient time to do schoolwork
4. Ineffective teaching styles and strategies
5. Student embarrassment in asking questions
6. Inadequate access to academic help and resources
7. Lack of in-school support
8. Student attitudes: high achievement is not cool, place friendship obligations over schoolwork
9. Teachers' communication, conscious and unconscious, of low expectations
10. Insufficient MCAS preparation
11. Insufficient parent involvement

External, Uncontrollable Factors in Rank Order (22 METCO Secondary Students)

1. Student lack of effort and attentiveness
2. Students' lack of sleep
3. Student belief that school is not a number one priority
4. Many after school jobs and activities
5. Harder, more difficult lives
6. Student attitudes: high achievement is not cool, place friendship obligations over schoolwork
7. Parents' lack of education
8. Insufficient parent involvement

The second key question that was asked of parents, staff, and students was what they thought should be done to help close the achievement gap. Again, in order of frequency from most to fewest responses and with no single-respondent inclusions, here are the results:

METCO Parents' Suggestions in Rank Order (39 METCO Parents)

1. Increase parent communication and involvement with teachers and the schools
2. Provide many more embedded programs for struggling students
3. Provide more tutoring options for students
4. Provide in-school and after-school homework support for students
5. Maintain and regularly communicate high standards
6. Provide a mentoring program for METCO students
7. Provide training for interested parents in study skills/academic support
8. Develop on-going systemic encouragements for high achievement
9. Provide more test preparation/skill instruction
10. Parents must increase their own supportive and informational networking

LPS Staff Suggestions in Rank Order (31 Staff Members)

1. Develop and implement additional, tiered academic assistance
2. Use data-driven intervention strategies
3. Develop a mentor program for METCO students
4. Provide clear, consistent feedback to students much more frequently
5. Provide early and extensive literacy interventions for all struggling students
6. Develop strategies to increase parent involvement
7. Continue to train staff in a variety of teaching styles & strategies
8. Implement full-day Kindergarten as soon as possible
9. Provide more professional development to embed best practices
10. Provide more study skills instruction

METCO Students' Suggestions in Rank Order (22 METCO Secondary Students)

1. Provide many more in-school tutoring options
2. Provide more test preparation courses / sessions
3. Provide after school academic support programs
4. Provide in-school and after-school homework support
5. Develop more teacher sensitivity to different learning styles
6. Push students harder and into more high level courses
7. Provide more study skills and time management instruction

Conversations with LPS Staff

Over the past 2.5 months I have sat down with 22 professional educators in the Lexington Public Schools to talk in depth and at length about the achievement gap. These staff members include Central Office Administrators, Principals, Assistant Principals, METCO Staff, Curriculum Leaders, and Teachers. One question I almost always asked was this: **If money were not an issue, and**

you had the authority to make it happen, what would you do to close the achievement gap? Given the nature of the question and the respondents, I have chosen to include all responses in no particular order. However, those that were mentioned by multiple respondents are in bold and grouped at the beginning of the list. This should not be interpreted as a qualitative judgment. Rather, view the list below as a menu of key LPS Staff's best, unrestrained thinking in conjunction with the rank ordered list of staff suggestions reported above.

- METCO tutors should be licensed, content specialists in literacy and/or mathematics. Provide more such tutors and dedicated space for instruction. Ideally one tutor per school would work with all METCO students.
- METCO tutors must be hired and ready to start their work with students on the first day of school.
- Institute full-day kindergarten and start the METCO program in kindergarten.
- Much more professional development for teachers in both the affective factors contributing to the achievement gap and the successful pedagogical responses to underachievement.
- After-school academic support for elementary METCO students, particularly on Thursday afternoons. Thus, provide the necessary transportation.
- Much more embedded literacy and math support for elementary students in grades 3-5.
- Hire more faculty and administrators of color.
- Provide for an extended school day either in Lexington or Boston with substantive academic support programs.
- Provide all secondary teachers with professional development on teaching literacy skills.
- Embed much more faculty collaboration specifically designed to address underachievement.
- The METCO selection process must be re-examined and more effective screening must take place.
- On the METCO bus have books on tape, live readers, or other effective uses of this time.
- METCO staff levels should be increased to allow them to focus more on academic as well as social-emotional support. Seek staff with dual licenses: social work and teaching.
- Expository, non-fiction writing must be a district priority at all levels.
- The literature confirms it, and we must find a way to ensure it happens. Underachieving students, particularly METCO students, must have a strong, formalized connection with a caring, encouraging adult at school if they are to improve their achievement.
- Address the issues of race, cultural differences, and bias head on and regularly.
- All elementary students should have 2 hours per day of high quality literacy instruction and 1 hour per day of high quality math instruction. Those in need of intervention in either math or literacy should receive one more hour of supplemental instruction.
- Staff after school programs with licensed specialists who work from 11:00 a.m. to 5:00 p.m. every day.
- Eliminate all pull-out instrumental music programs.
- Summer intervention programs must be very high quality and mandatory.
- Double dosing in math and literacy skills for struggling secondary students must be a scheduling priority.
- Do not put METCO siblings in different schools.

- Provide monitors on the 4:30 METCO late bus to assure parents and students of a safe ride home after hours.
- Small group math must be taught by licensed math teachers, not by SPED generalists.
- Establish fully functioning, properly staffed learning centers at the middle schools.
- Develop specific strategies to push METCO students into higher-level courses and then provide the support services they will need.
- Provide secondary, drop-in homework centers staffed by a literacy specialist.
- Provide more opportunity and professional development for transmitting acquired knowledge and skills to new staff.
- Provide small-group studies at the secondary schools.
- Hire staff to monitor more closely those METCO students who stay after school.
- Develop clearer expectations for METCO social workers with regard to home visits before students are accepted into the METCO program.
- In elementary schools, develop multiple, short-term intervention strategies provided to students by many different specialists.
- Provide more before-school academic support programs at the elementary level.
- Make a consolidated list of effective after-school programs available in Boston. This would require significant staff time to visit and assess those programs.
- Provide after school programs in Lexington staffed by Boston-based professionals.
- Require, do not invite, underachievers to participate in special programs.
- Ensure that all standards, whether behavioral or academic, apply to all students.
- Provide a mandatory, summer program in Boston taught by Lexington staff for all newly accepted METCO students.
- Provide many more non-SPED supports at the elementary level, particularly in reading.
- Experiment with elementary scheduling to provide a half-day per week per grade level for intervention and/or enrichment.
- Train more senior citizens and other like volunteers as literacy paraprofessionals.
- Early intervention is the key. Use every other Thursday afternoon at the elementary schools to group the system's METCO students in need of extra support. Have a primary group and an upper elementary group. Hire licensed professionals to staff each group.
- Provide much more training for Instructional Assistants.
- Provide mandatory reading courses for 9th graders identified in need of such a course.
- Identify the appropriate students, and then require they use 2:30 – 4:00 at LHS for monitored homework time.
- Experiment with secondary scheduling to provide more time for academic support during the school day. For example, a 6-day schedule with one period per day dedicated to academic support and/or enrichment.
- Common, formative assessments must be developed and put into place at all levels.
- Parent education and support programs should be offered.
- Hire an African American drama specialist to work with students on issues of self-image and confidence.
- Prevent over-referral to SPED when, in fact, the METCO students are just "instructionally deprived."

RESEARCH: GAP-CLOSING PRACTICES, SCHOOLS, AND PRACTITIONERS

In this section of the report I will begin by listing and briefly describing the books, research studies, and professional readings I have found to be particularly informative and valuable. Bibliographical data and/or internet links will allow readers to access the material for further examination and study. Important sections of the material will also be placed in this report's appendix for easy reference.

In the second part of this section, I will report on my conversations with a small number of people, some from other parts of the country, who have been doing this work with some success. This section will then conclude with my thoughts on essential gap-closing strategies and practices.

Books

Chenoweth, Karin. It's Being Done: Academic Success in Unexpected Schools. Cambridge, MA: Harvard Education Press, 2007.

This is the one book I have read on the subject of gap closing that I recommend all educators read. I attended a forum at Boston University on the achievement gap where I learned of this recent publication. Chenoweth is a longtime education writer who currently writes for the Achievement Alliance. From 1999-2004 she wrote a column on schools and education for the *Washington Post.* In this book she describes how she used available student achievement data to ferret out 15 schools (all levels and in many different states) where the achievement gaps were being rapidly closed if not eliminated. Her accounts of each school are inspiring and replete with practical ideas and best practices. Although many of the schools in the book are not at all like Lexington's schools, there is certainly a universal applicability to many of the best practices. There is no substitute for reading the book since many of its best stories are exactly that – stories with many characters and multifaceted approaches. However, here's an overly simplified, but hopefully appetite-whetting menu of some of this book's easily listed best practices.

- Train community volunteers, mostly retirees, to work with students in literacy and math. The staff coordinator of this program is paid a stipend. (p. 22)
- Constant teacher encouragement, high expectations, and expectations that upper classmen serve as role models are all part of a winning and achieving school culture. (pp. 30-31)
- Make student achievement data transparent; all teachers know the achievement data of other teachers in order to learn from each other. (p. 39, p. 81)
- Parents, many of whom underachieved in their school experience, are given packets of information on how to help their children achieve. (p. 41)
- Middle school looping: Team teachers teach grade 7 one year and then loop to grade 8 the next. (p 52, p. 183)
- "Excuses are dream killers." (p. 81)
- Distribute leadership among the teachers. (p 84)

- Reorganize the school day to provide long, uninterrupted periods of instruction. (p. 107)
- Use advisory periods as the core of how students are connected to the school. (p. 119)
- Frequency of good assessment is vital to improve achievement. (p. 134)

Chenoweth concludes with her account of "What *It's Being Done Schools* do that Is different." A summary of her conclusions is included in this report's Appendix. (PP. 51-52)

Carter, Prudence. Keepin' It Real: School Success Beyond Black and White. New York: Oxford University Press, 2005.

The directors of EMI recommended this book. Carter is Associate Professor of Sociology at Harvard University. Her book is a study of 68 African American and Hispanic students in Yonkers, NY. Her thesis is that Black and Latino students may describe certain practices as "acting white," but they do so for cultural reasons, not academic ones, i.e., to act in solidarity with self-worth and pride. However, once enrolled in schools and once they exhibit low academic performance, this gets translated by many educators as a rejection of excellence, which it is not.

Carter's work reminds those of us in education that culture matters. Both our students and we have a responsibility to address how culture affects academic achievement. She reinforces the findings of Ron Ferguson and other researchers that closing the achievement gap will require us to ensure that our students of color have encouraging, understanding, and trusting adults in their schools.

Tatum, Alfred. Teaching Reading to Black Adolescent Males. Portland, ME: Stenhouse Publishers, 2005.

This book was recommended by Dr. Laura Cooper, an Assistant Superintendent in Evanston, Illinois. (I will say more about my conversation with Laura later in this report.) Tatum is an assistant professor in the Department of Literacy Education at Northern Illinois University. In this book, he begins by describing the changes that take place in adolescence, specifically with regard to black males' literacy development. He goes on to describe how educators must seek comprehensive solutions to address the turmoil that young black men experience in their day-to-day lives. He concludes with a comprehensive framework for literacy teaching, text discussion, and assessment, and also with methods of professional development for teachers.

Research Studies

High Performance in High Poverty Schools: 90/90/90 and Beyond by Douglas B. Reeves**.**

http://www.sabine.k12.la.us/online/leadershipacademy/high%20performance%2090%2090%2090%20and%20beyond.pdf

This article provides a review of research in high poverty schools that have also demonstrated high academic performance. Reeves originally coined the term "90/90/90" in 1995. It is based on observations in Milwaukee, Wisconsin, where schools had been identified with the following characteristics: 90% or more of the students were eligible for free and reduced lunch,
90% of more of the students were members of ethnic minority groups, and 90% or more of the students met the district or state academic standards in reading or another area.

A key finding in this study is that poverty and minority status are definitely not invariably linked to low achievement. Rather there were common characteristics of these high achieving schools:

- A focus on academic achievement
- Clear curriculum choices
- Frequent assessment of student progress and multiple opportunities for improvement
- An emphasis on nonfiction writing
- Collaborative scoring of student work

Reeves goes on in this article to describe the best practices of the Norfolk, VA, schools where the schools reduced the achievement gap between white and black students in third, fifth, and eighth grades, with both groups continuing to improve:

- ***The Impact of Collaboration:*** The schools devoted time for teacher collaboration meetings, which were focused on an examination of student work and a collective determination of what the word "proficiency" really means.
- ***The Value of Feedback:*** The schools with significant improvements provided significantly more frequent feedback to students than is typically the case with a report card. Struggling students often received clear, unambiguous weekly reports
- ***The Impact of Time:*** The schools with large gains made dramatic changes in their schedules. At the elementary level, they routinely devoted three hours each day to literacy, with two hours of reading and one hour of writing. At the secondary level, they routinely provided double periods of English and mathematics.
- ***Action Research and Mid-Course Corrections:*** Teachers engaged in successful action research and mid-course changes in strategies.
- ***Aligning Teacher Assignments With Teacher Preparation:*** Principals made decisive moves in teacher assignments so as to best meet the teachers' abilities and backgrounds.
- ***Constructive Data Analysis:*** Successful schools included an intensive focus on student data from multiple sources, and specifically focused on cohort data. In brief, these teachers compared the students to themselves rather than to other groups of students. This analysis allowed them to focus their teacher strategies on the needs of their students and not on generic improvement methods.
- ***Common Assessments:*** The schools with the greatest improvements in student achievement consistently used common assessment. The use of a common assessment

for each major discipline allows for a combination of daily discretion and independence by teachers, while preserving a school-wide commitment to equity and consistency of expectations.

- ***The Value of Every Adult in the System:*** These remarkably successful schools employed the resources of every adult in the system.
- ***Cross-Disciplinary Integration:*** There is explicit involvement of the subjects that are frequently and systematically disregarded in traditional accountability systems – music, art, physical education, world languages, technology, career education, consumer and family education, and many other variations on the these themes.

After the Test: Closing the Achievement Gaps With Data by Kiley Walsh Symonds

http://www.ncrel.org/gap/studies/basrc.pdf

This is an impressive study that was published in 2004. The Bay Area School Reform Collaborative surveyed 32 K–8 schools in the San Francisco Bay Area and compared responses from schools narrowing the gaps with schools maintaining or widening the gaps. The study defined *gap-closing* schools as those schools in which all students made improvement, but low-performing students made more rapid progress. Conversely, the study defined *non-gap-closing* schools as those schools in which high-performing students made more improvement than low-performing students.

Below is a summary of the study's recommendations:

- **Schools need frequent, reliable data.** Whether in the form of diagnostic assessments or qualitative data, teachers and school leaders need frequent feedback to identify strengths and weaknesses.

- **Teachers need support to use data.** Teachers need professional development regarding how to understand data and how to take action on the data. They also need collaboration time to discuss strategies and visit each others' classrooms to observe practice.

- **Race matters.** Schools need to hire and promote people of color and provide structured, data-based opportunities for faculty to discuss how race and ethnicity affects students' experiences in school. They should get specific regarding what equity should look like and then set measurable goals regarding how to reach that vision of equity.

- **Focus is essential.** Schools should not try to do everything. Instead, they should choose what matters most and can be controlled within school walls and focus on it. One essential focus is to make sure that students are mastering reading/literacy skills; these skills are the foundation of learning.

One finding in the study is particularly relevant for our work in Lexington. Case-study schools that focused on a small student group—the lowest-performing student group—reported big gains for the school as a whole. In Belle Air Elementary School, a focus on supporting Hispanic/Latino boys helped teachers hone their skills at differentiating instruction for all. At Roosevelt Middle School, a focus on African-American suspensions resulted in a reduced suspension rate for all students. It may seem counterintuitive, but focusing on a few students can lead to the kinds of

deep changes that promote whole school change. **In other words, our targeted efforts to raise the achievement levels of our African American/Hispanic students would certainly help all struggling students, if not all students, period.**

In the appendix I have included two pieces of this study: (1) A graphic from the study called the *Cycle of Inquiry*, which is essentially a model of Action research. (P. 53) Teachers at one of the gap-closing schools in the study, Belle Air, are constantly using data to ask questions, challenging themselves to try new approaches, and evaluating results. It's this process that they call the Cycle of Inquiry. Belle Air engages in this formal self-analysis on a school-wide, grade-level, and classroom-level basis. (2) An excellent example of how one school (Roosevelt Middle School) uses data to help children. (PP. 54-55)

Gaining Traction, Gaining Ground: How Some High Schools Accelerate Learning for Struggling Students by the Staff of the EDUCATION TRUST

(Note: The focus of the Education Trust as an organization is on closing the achievement gap that separates low-income students and students of color from other young Americans.)

http://www2.edtrust.org/NR/rdonlyres/6226B581-83C3-4447-9CE7-31C5694B9EF6/0/GainingTractionGainingGround.pdf

This study, published in November 2005, examined seven public high schools. Four were "high-impact" – that is, they produced unusually large growth among students who entered significantly behind. The Education Trust staff compared these high-impact schools with three average-impact schools with similar demographics. By looking at both sets of schools, they hoped to find out what the high-impact schools do differently than the average-impact schools. Below is an overview of the study's findings with regard to the characteristics of high-impact high schools:

Sphere 1: Culture

- High-impact high schools are clearly focused on preparing students for life beyond high school—specifically, college and careers.
- In official policy documents, the clear focus in high-impact schools is on academics.
- In high-impact high schools, teachers and administrators express consistent views about achievement-related school goals.
- In high-impact schools, teachers embrace external standards and assessments; in courses where such standards and assessments are unavailable, they create them.

Sphere 2: Academic Core

- High-impact schools have consistently higher expectations for all students, regardless of students' prior academic performance; and principals, teachers, and counselors take responsibility for helping students succeed.
- In high-impact schools, barriers to high-level course taking are removed. Students are encouraged to take on academic challenges.

- High-impact schools use assessment data for future planning, such as improving curriculum or making teacher assignments.

Sphere 3: Support

- In both high- and average-impact schools, students who arrive behind get extra instructional time in English and math. But high-impact schools provide help in a way that keeps students on track with college-preparatory requirements.
- In high-impact schools, administrators and teachers take responsibility for ensuring that struggling students get the additional help that they need. At high-impact schools, little is left to chance.
- High-impact schools have in place early warning systems to identify students who need help before it's too late
- Counselors in all schools are involved in scheduling, but counselors in high-impact schools are considered members of the academic teams and are responsible for actively monitoring student performance and for arranging help when needed.
- High-impact and average-impact schools both have partnerships with businesses and colleges, but high-impact schools use those partnerships to aid in student preparation for post-secondary opportunities.

Sphere 4: Teachers

- High-impact schools use more criteria than teacher preference to make teaching assignments, looking at factors such as past student performance and the teacher's area of study. Teacher assignments are made to meet the needs of the students, rather than the desires of the teachers.
- School-sponsored support for new teachers in high-impact schools is focused on instruction and curriculum.
- Administrators at high-impact high schools adjust class sizes to provide more attention for struggling students and are not averse to larger student-teacher ratios for students who are able to work more independently.
- Principals at high-impact high schools exert more control over who joins their staff than those at average-impact schools.

Sphere 5: Time and Other Resources

- High-impact schools are more deliberate about the use of instructional time, arranging available time to help "catch up" students who arrive behind.
- Students who enter ninth grade behind in high-impact schools spend more time in courses with substantial reading and/or reading instruction than do their counterparts in average-impact schools.
- Overall, the amount of time that students spend in academic classes is about the same in both high- and average-impact schools. But in high-impact schools, a larger fraction of that time is spent in grade-level or college-prep courses.
- All of the schools in the study say they protect academic time, but high-impact schools have more strategies to efficiently use time and are stricter about enforcement.

A table from this study entitled *School Practices at a Glance*, which compares high-impact and average-impact high school practices, is included in the appendix. (PP. 56-57)

ALL STUDENTS REACHING THE TOP: Strategies for Closing Academic Achievement Gaps

by the National Study Group for the Affirmative Development of Academic Ability

http://www.ncrel.org/gap/studies/allstudents.pdf

In 2004, with the support of Learning Point Associates, the College Board, and the Institute for Urban and Minority Education at Columbia University Teachers College, 20 leading scholars from multiple disciplines conducted this study. They crafted a vision for affirming academic ability, nurturing intellective competence (defined in the study as that which reflects the integration of academic content with mental processes such as reasoning and critical thinking applied within an ever-changing but highly relevant social context, which results in the mental activity that is necessary to make sense of experiences and to solve problems), and moving all students—particularly minority and low-income students—to high levels of academic achievement. The entire study is well worth examining, but for this report, I will highlight one key finding.

The study finds that the social-psychological literature points to a clear message that feelings of trust in the institution, and in those who are seen to represent the interests of those institutions (e.g., teachers, administrators), are a fundamental building block in the affirmative development of high minority achievement. Yet successful minority students are increasingly likely, as they move up the achievement ladder, to encounter contexts and situations in which their group has been historically excluded and underrepresented.

Stereotype threat becomes a relevant psychological process when people find themselves in contexts where a stereotype about their group is applicable. As such, Hispanic and African-American students may be particularly vulnerable to stereotypes in the domain of academics, because the stereotype surrounding these students concerns a generalized suspicion about their intelligence. Importantly, the effects of stereotypes can occur without the stereotyped individual himself or herself believing the stereotype—one simply has to have the knowledge of the stereotype and the awareness that others may view him or her through that stereotype. To the degree that schooling in general and standardized testing in particular place particular emphasis on diagnosis of ability as a gateway for tracking, or college admissions, or other future opportunities, the implications of feeling stereotyped in relation to minority student achievement are profound.

The study argues that minority students may experience the psychological impact of being a member of a stigmatized group more acutely as they become more academically successful. The reasons for this are twofold: First, such success implies developing an academic identity, which for minority students is a threatened identity. Second, as minority students become more successful, the likelihood increases that educational opportunities and institutions will continue being over-represented by majority group members—thereby increasing suspicions about one's belonging and acceptance.

What *Doesn't* Meet the Eye: Understanding and Addressing Racial Disparities in High-Achieving Suburban Schools by Ronald F. Ferguson, Ph. D., November 2002

http://www.ncrel.org/gap/ferg/

Ferguson's work has particular relevance for Lexington since he examines high-achieving suburban schools. He offers 4 particular recommendations:

1. **Assume no motivational differences.** It seems likely that incorrect assumptions about group differences in effort and interest may lead some schools to underinvest in searching for ways to raise achievement levels among African-American, Hispanic, and some mixed-race students. Teachers should assume that there are no systematic, group-level differences in effort or motivation to succeed, even when there are clearly observable differences in behavior and academic performance.
2. **Address specific skill deficits.** Racial and ethnic disparities in self-reported understanding of lessons and readings call attention to the fact that gaps in standardized test scores and school grades reflect real disparities in academic knowledge and skill. To help raise achievement and close gaps, schools should endeavor to identify and address specific skill and knowledge deficits that underlie comprehension problems for individuals in particular racial and ethnic groups and respond in targeted ways.
3. **Supply ample encouragement routinely.** Given the importance that black and Hispanic students assign to teacher encouragement, teachers need to be aware of what students regard as encouraging. Using this awareness, they need to provide effective forms of encouragement routinely. Further, as the other recommendations imply, encouragement should be matched with truly effective instruction and other forms of academic support both inside and outside the classroom.
4. **Provide access to resources and learning experiences.** In response to differences in family-background advantages, schools could supply more educational resources and learning experiences outside the home. They could provide access to books and computers and extracurricular opportunities for intellectual enrichment.

Ferguson's work has been confirmed in other studies. There can be no doubt that effective and encouraging teacher-student relationships are especially important resources for motivating African American and Hispanic students. These students, more so than White and Asian students, report that "encouragement" is much more motivating than teacher "demands." The mantra - "We care; therefore, they learn" - must be both internalized and made manifest by all educational professionals. Of course, Ferguson also emphasizes that an adequate, ambitious, multi-dimensional strategy to close racial and ethnic gaps in academic knowledge and skill would have many other components as well. He indicates that we must focus relentlessly on ideas and activities geared to produce learning.

Gleanings from Professional Journals

The November 2004 edition of Educational Leadership was devoted exclusively to articles about achievement gaps. There is one article in particular that struck me when I read it: "Untracking Earth Science," by Sherry King, Seth Weitzman, and Larry Keane.

> The Hommocks Middle School in the article is part of a high-achieving suburban school system in Westchester County, NY, that is racially, economically, and ethnically integrated. Like Lexington, they faced a minority underachievement problem. This article describes what was done with regard to one, previously tracked 8th grade course – Earth Science. After hosting many community conversations and open study sessions, the school board assured school administrators that engaging students in challenging classes was a higher priority than getting higher test results or making the school look good in the local newspaper. At Hommocks, they decided to admit all but the most seriously disabled students to the rigorous, previously tracked Earth Science course. A year later 95% of the 8th graders took the Regents Earth Science exam compared to only 66% the year before. The average score declined only slightly from 91 to 85, and 98% of the special education students passed the test.
>
> How did they do it at Hommocks? (1) District support and (2) the work of the middle school staff in making comprehensive instructional changes to support the success of all students. The district hired a full-time teacher assistant certified in Earth Science who visited classes, assisted individual students, and taught a support class every other day to those needing more time on task. The district used Title 1 funds to provide before and after school help classes. The district assigned a Spanish-speaking teacher assistant to help ELL students. The middle school staff worked together to create hands-on laboratories for all students and used technology much more effectively. However, the careful use of data to monitor student progress and the cooperation of all staff to create intervention strategies for strugglers really made a difference in all students being able to achieve. Teachers were willing to get to know every student, to take collective responsibility for every student's success, and to modify their own teaching styles as many times as necessary to help every student learn.

In the September 2007 issue of Educational Leadership, Doug Reeves contributed the article, "Teachers Step Up."

> Reeves describes the remarkably successful efforts of the Jenks Public Schools in Oklahoma for some of the most challenging students in the system. In particular, at Jenks High School, intervention is proactive, not reactive. The school does not wait for a failing grade to institute intervention strategies. At JHS, intervention is delivered by outstanding faculty members who volunteer to take on the most challenging students. Also at JHS, intervention includes time – twice the student contact hours that had been provided in the past. These interventions are mandatory for the students who need them. If extra time is not enough for some students, extra reading and composition classes may be mandated. In math, algebra lab classes are mandated and taught by excellent teachers. Faculty are relentless. Students will learn!

In the December 2002/January 2003 edition of Educational Leadership, Kay Lovelace Taylor contributed "Through the Eyes of Students."

> In this short article the author describes meeting with 300 inner-city Philadelphia high school students to ask them about the achievement gap. After describing her methods of dealing with a sensitive topic, Taylor makes some instructive recommendations: (1) Hold a comprehensive session every year to provide students with detailed information about their group's achievement data. Include comparative data by ethnicity and region. (2) Provide parent institutes to share this data and to tell parents what they can do to help ensure their children's academic success.

In the September 2007 edition of The School Administrator is an article by Raymond McNulty and Russell Quaglia, "Rigor, Relevance, and Relationships."

> Reinforcing the work of Ron Ferguson cited above, the authors state unequivocally, "If there is not a high level of positive relationships, students will not respond to higher expectations." Schools must pay attention to helping students develop a sense of self-worth, fostering students' active engagement in learning, and encouraging students' sense of purpose. Therefore, schools need data indicators in 4 areas: (1) core academics, (2) stretch learning (learning beyond minimum requirements such as enrollment in higher-level courses), (3) student engagement (the extent to which students are motivated and committed to learning, have a sense of belonging and accomplishment, and have relationships with adults, peers, and parents who support learning), and (4) personal skill development (measures of personal, social, service and leadership skills and demonstrations of positive behaviors and attitudes).

Conversations with Gap Closers

Dr. Laura Cooper, Assistant Superintendent for Curriculum and Instruction, Evanston Township High School in Illinois

> In a professional article on the achievement gap, Evanston Township High School was mentioned as one with a significant focus on the issue of minority achievement. Laura Cooper used to live and work in this area; she was familiar with our schools. She graciously accepted my call. Our conversation was lengthy and wide-ranging, but I will only report on what is relevant and important to consider as we continue our gap-closing work.
>
> Laura was quite frank in stating that they had not closed the achievement gap, but that they were making some progress in some areas. In particular, over the past several years they have doubled the number of African American students achieving proficiency on the Illinois state mathematics assessment, which she described as setting a "very high bar." She cited a number of factors which may have contributed to this, although she stressed that as yet there is no hard and fast proof.

Describing algebra and its mastery as key to their entire math program, Laura described how their high school has an algebra team, who have common planning time and who have used that time to develop common assessments. Individual teachers are free to supplement, but not supplant, these common assessment cores. And, critically, Algebra 1 students receive double periods of instruction. There are mandatory help sessions for those who significantly underachieve. These sessions occur in 3-week cycles after which students are reassessed. The school is also in the second year of a pilot summer program for persistently underachieving algebra students. Not only do these students spend 2 hours per day on algebra skills, they also spend 2 hours per day on activities designed to improve their knowledge of themselves, how they learn, and how to be a member of an academic community. This is called the Academic Youth Development Program.

Dr. Douglas Reeves, CEO and founder of the Center for Performance Assessment

Doug was able to take my call while he was waiting to board a flight to his next consulting site. He was able to point me to a number of publications/studies with relevant and current research on gap closing. Much of that material has been referenced in this report.

In the brief time we had to talk, Doug emphasized the importance of teaching kids at all levels to master non-fiction writing. He said that $3.1 billion per year is spent by U.S. businesses to help their employees learn how to write! Doug added that schools must do whatever it takes to provide teachers with more time to collaborate and, particularly at the secondary level, to provide teachers and struggling students with more time together. In his most recent research, he pointed out that although requiring underachieving students to spend more time in literacy and mathematics instructional settings initially reduced the number of elective choices/courses, those numbers eventually increased because students had become more proficient and confident as learners.

In ending our conversation, Doug emphasized the absolutely critical role that committed leadership must play in doing this work. Without leaders willing to restructure school days and alter traditional scheduling practices to permit course and teacher assignments that underachievers need, success in closing the gaps may be elusive. He emphatically added that that if "heat" must be taken to bring this about, leadership must take it, not teachers.

Mr. David Ingham, Principal of the Adams Middle School in Westland, Michigan

In the appendix, (PP. 58-59) I have included Dave Ingham's piece called "From the Principal," which is posted on the Adams website. It is a clear, concise summary of how one school is creating professional learning communities and putting into practice many of the research-proven, gap closing strategies and practices. The link below will allow the reader to explore this school's very rich website.

http://adams.wwcsd.net/index.php?option=com_content&task=blogcategory&id=27&Itemid=43

I learned about the Adams Middle School while reading an article recommended by Doug Reeves. Dave Ingham, the principal at Adams, also graciously accepted my call to talk further about their gap closing successes. (Adams is relying heavily on DuFour and Reeves in doing their gap closing work.)

In what is emerging as a common theme and an academic imperative, Dave described the one hour per week of contractually permitted after-school time at Adams being used for Professional Learning Community meetings. At Adams, these PLCs are organized vertically (e.g., a PLC made up of all 6th, 7th, and 8th grade English teachers). These PLC teams focus exclusively on how to ensure that all students learn. Thus, this time has been used to develop common assessments and pacing guides in all content areas. (Note: Learning from experience, Dave suggested doing the common assessment work before any pacing guide work.) A "Pyramid of Interventions" was developed and is continually being assessed and altered to address the needs of struggling students. This "Pyramid" is included in the appendix. (P. 60)

Dave described semester-long classes that certain levels of underachievement mandate for struggling students. He calls them "Academic Literacy" courses, and one is in mathematics and one in English language arts. Some teachers also volunteer to do directed, shorter-term study groups during lunch periods to which underachievers are assigned until they can test out.

I was most interested in learning how the faculty responded to so much fundamental change. Dave indicated it was not always easy and that some faculty found it difficult to give up a degree of autonomy in order to do this "common" work. Some faculty were fearful of the degree of transparency that student assessment was taking on in the PLCs. He indicated that it is essential to celebrate every small victory and every student improvement in the beginning of this work in order to build up a critical mass of success that eventually become points of pride.

Mr. Gary Simon, Mathematics Department Head, Lexington High School

Earlier in this report, I indicated that the math department at LHS seems to be having sustained success in closing the MCAS gaps. Here again are the data, which indicate that from 2003 to 2007 in all 4 subgroups there is gap-closing progress:

LEX	**Math MCAS: % of Students *BELOW PROFICIENT***			
Grade 10	**Afr. Am'n.**	**White**	**Asian**	**Hisp.**
2003	74%	25%	13%	-
2004	75%	20%	6%	-
2005	43%	10%	2%	27%
2006	48%	10%	5%	28%
2007	28%	5%	1%	16%

In my conversation with Gary, I was very interested in determining if any of the gap-closing practices I had been reading about had been part of the LHS math department's best practices. I can report with some confidence that this is the case.

Eighth graders in Lexington who are assessed most in need of math support are placed in the Integrated Math course. This course has the lowest performing math students but is taught by very experienced and highly skilled teachers. Community volunteers staff the Math Tutoring Center all day, every day with few exceptions. There is also voluntary staffing of a Math Testing Center where students who need extended time or who missed a test can complete these assessments. A TAP Program (Teacher Assistant Program) has been developed which allows seniors to get math credit by being assigned to a particular math teacher and one of that teacher's particular courses. These seniors then learn how to support struggling students in those classes. Gary reports that math faculty members are also widely available after school to help individual students and that student use of this time is extensive. Every math course has a lead teacher who takes responsibility for coordinating the activities of all staff teaching that course. Department members liberally share all lessons, worksheets, assessments, etc. by posting all such material in a First Class folder for every course. Final exams for every course are eventually posted on the school's website.

Assigning excellent teachers to the neediest students, providing multiple support programs for students both during the day and after school, embedding collaborative faculty practices, and distributing teacher leadership are all characteristics of successful gap-closing strategies.

Ms. Barbara Manfredi, recently retired Principal of the Bridge School

Under Barbara's leadership, Bridge had the lowest rate of student referral into special education programs. In our conversation I asked her what she thought were the reasons for this. Barbara described a set of practices and a school culture that was successful in getting many struggling students what they needed to succeed without putting them on IEPs. First and foremost, teams of educators met regularly to look at specific data in order to identify underachievers. The Child Assistance Team deliberately did not have special education teachers among its members. All factors were considered in assessing each child and multiple assessments were the rule. Each individual was then provided with the services most likely to address the learning issue within regular education programs. Sometimes that could mean placing a regular education student in a small group of SPED students being taught by a special educator. Like-learners were grouped together. Resources were also distributed as a result of the data examination at grade level team meetings, which took place twice a year.

This over-simplified description indicates a total team effort by committed staff with a reliance on data to determine need and distribute resources. Students who were, in Barbara's words, "instructionally deprived" were provided appropriate instruction without resorting to over-identification as learning disabled. Empowering and enlightened leadership is needed to coordinate such efforts.

SUMMARY and RECOMMENDATIONS

Schools and school systems reflect the communities in which they operate, the families they serve, and the staff who teach and work there. The individual programs and specific practices, which contribute to all students achieving at proficient and higher levels, will differ widely from one gap-closing school to another. However, there are common characteristics of gap-closing schools, without which, it seems, the achievement gaps will persist.

1. As stated earlier, core beliefs must be the foundation of all gap-closing work.
    - Academic ability is a developed (and developable) ability, one that is not simply a function of biological endowment or a fixed aptitude.
    - Strong, trusting, and encouraging teacher-student relationships will contribute to improving achievement for all students, but even more so for African American and Hispanic students, who may have internalized the insidious societal message that low achievement indicates low ability.
    - While recognizing the crucial role that parents, community, and culture play in educating all students, the primary focus of our schools must be on what we can control and actually do.
    - Schools that concentrate on how their practices affect each and every student will be more productive and successful than those that blame students, families, poverty, cultural differences, or race for underachievement. Schools can and must have a powerful, positive impact on the achievement of all students.
    - We must all continually examine our beliefs and change our practices to counteract the contemporary and historic impacts of racism and discrimination.
    - To improve student achievement for all students and thereby close the achievement gap, we must identify and change those aspects of our school culture that impede our gap-closing work.
    - With African American and Hispanic children achieving at significantly lower levels than their white and Asian peers, we cannot choose to be color-blind. Emphasizing race in educational discussions and activities may seem controversial or counterintuitive, but it is far more effective than the alternative.

2. Schools and systems must adopt an explicitly stated, goal-defined, resource-supported, on-going, laser-like focus on getting all students, particularly those subgroups with long histories of underachievement, to achieve at proficient and higher levels. Focused pursuit and deep implementation of fewer goals is far preferable and more conducive to success than superficially addressing too many goals.

3. Excellent teaching and highly effective leadership must be defined in terms of all students learning. Reciprocal accountability must be the norm. Districts and leaders must be held accountable for providing all students and teachers with the supports and resources they need to close gaps and ensure high achievement. Teachers must be held accountable for what they have the capacity to accomplish in terms of student learning.

4. High standards, rigorous curricula, effective instruction, and frequent formative assessments must all be in alignment.

5. Extended learning opportunities must be abundant. A combination of before school, during school, after school, summer school, and/or weekend school opportunities must be employed.

6. Scheduling practices must be carefully examined and revised as needed to ensure that extended learning in literacy and mathematics become mandated realities for underachievers.

7. Early intervention to support underachievers in literacy and math must trump other uses of instructional time. This over-arching emphasis on literacy and math must extend to middle and high school levels as needed. Non-fiction writing must receive significant emphasis at all levels.

8. African American and Hispanic students must be encouraged to take more high-level courses and must be given the supports they need to succeed. Secondary school leaders must embrace accountability for making specific, targeted progress in this area.

9. Policies and contracts must be adopted to ensure that the most effective teachers provide instruction for the most challenging underachievers.

10. Frequent (at least monthly) and effective common, formative assessments of individual student achievement must be instituted at all levels of instruction and must drive the implementation of a tiered set of intervention strategies for underachievers.

11. Collaboration in structured Professional Learning Communities must be embedded in the school day and must focus exclusively on all aspects of student learning and development.

12. Teachers must be willing to give up some autonomy as members of a PLC, but they must also receive more authority to experiment, reexamine and alter practices, and make decisions in the best interests of student learning.

13. Understanding that teacher quality is key to student achievement, professional development programs must provide teachers with the support and skill sets needed to get each and every student to proficiency. In particular, skill in analyzing low-performing student data and linking this data to specific instructional strategies is critical. Teachers, as part of any professional development program, must also be given more opportunities to visit one another's classrooms.

14. All members of the school community must recognize that strong, trusting, and encouraging adult-student relationships at school are vital to all students, but particularly to African American and Hispanic students. Specific programs (mentoring, tutoring, role modeling, affinity grouping) must be developed to ensure that minority students are

engaged academically, supported culturally and emotionally, and explicitly valued as indispensable members of the school community.

Recommendations

My intent here is to stimulate professional conversation and to jump start the decision-making process. There is no substitute for decision-makers delving deeply into this issue on their own before coming together to assess whether these recommendations are complete, appropriate, and viable. I am sure there will be healthy debate and significant revision.

The achievement gap is a complex issue, which will require a multi-faceted approach and the application of significant resources over time before every student reaches proficiency on accepted measures of achievement. **Success will be largely a matter of will and leadership**. For far too long, the small number of METCO students and the small number of Lexington-resident African American and Hispanic students have been easily lost in the aggregate achievement of a high performing district. It's time to change that fact. **The research is convincing that it can be done and that the efforts, programs, and practices required to do so will positively impact the achievement of all students, not just the targeted underachievers**. With this in mind, I offer the following recommendations:

1. As soon as possible and practicable the Lexington School Committee should adopt a specific, gap-closing action plan, which includes a time frame (no longer than a 5-year plan) and appropriate, annual benchmarks by which to measure success.

2. To assist the School Committee and Administration in this endeavor, an Achievement Gap Task Force should be constituted to develop and continually assess/revise the action plan as needed, to provide research and best-practice support, and to oversee its implementation. The Task Force should report to the School Committee in open session every other month.

3. It is vital that the work begun in Lexington to institute and institutionalize formalized Professional Learning Committees continue. The research is overwhelming that embedded collaboration around student learning is essential not only to gap closing, but also to increasing all students' achievement and success.

I recommend at this point that readers of this report refer back to the previously reported recommendations of parents, students, and LPS staff on how to address the achievement gap. Many of the studies, books, and journal articles already cited also included important recommendations as well. I hope some of them have or will strike particular chords with particular decision-makers. In addition, having been steeped in this work for several months, I respectfully offer the following recommendations, which I believe are essential:

1. The LPS should institute full-day kindergarten as soon as possible. METCO students, ideally, should enter the LPS in kindergarten.

2. All elementary students should receive two hours of high quality literacy instruction and one hour of high quality mathematics instruction every day. Elementary schedules should also be flexible enough to permit additional intervention time for struggling students. These interventions must not be unrelated, uncoordinated pull outs. The Task Force should investigate creative, alternative scheduling practices at both elementary and secondary schools. Scheduling practices that will enable extended learning time for underachievers are essential to this work.

3. Provide bus monitors on all METCO late buses, and provide an elementary METCO late bus on Thursday afternoons. This is unutilized time for extended learning – the most precious of resources.

4. For implementation as soon as possible, develop a METCO mentor program for those who need an adult advocate in the schools. The Task Force should develop this program, and if it is unrealistic to provide a mentor for every METCO student so quickly, develop the criteria by which to assess the need for a mentor. Ideally METCO students should know if they are accepted into the Lexington Public Schools no later than June, 2 months before school begins, and a mentor should be assigned to allow for summer contact and relationship building.

5. Every school must develop a set of tiered intervention strategies that is directly linked to individual student assessment. (Ask Stephanie Grimaldi about her piloting of a 3-tier, literacy intervention program.) Tools must also be developed to assess METCO student engagement in school (the extent to which students are motivated and committed to learning, have a sense of belonging and accomplishment, and have relationships with adults, peers, and parents who support learning). This engagement data must be used in conjunction with academic assessments and should contribute to a school's development of tiered intervention strategies.

6. Counselors and METCO social workers should collaborate in developing action research projects around the tracking of student achievement and their role in monitoring and/or activating the academic intervention process. One question that must be answered is whether more counselors, social workers, and/or academic support staff will be needed as roles expand to include new responsibilities with regard to student achievement.

7. More staff (custodians, cafeteria workers, instructional assistants, teachers, administrators) of color must be hired and then supported for success. (Too many licensed staff of color have not achieved PTS in the past.) Eventually, mentor training should be made available to non-professional staff of color; they can play an important role as METCO students' adult advocates.

8. Specific goals must be set at each school with regard to secondary METCO students enrolling and succeeding in higher-level courses. Therefore, substantial support services must be a part of this effort. (See the article, "Untracking Earth Science," referenced above for examples of such supports.) Creating a critical mass of METCO high achievers is essential to this work. The Task Force should investigate Brookline High School's African American Scholars Program.

9. Increase tutoring support during school (e.g., drop-in centers or pre-qualified student sign up's or mandated, directed studies), after school in both Boston and Lexington (e.g., mandated homework sessions), and before school (e.g. ,mandated help sessions during X block at LHS) by qualified educators for regular-ed underachievers. Adjusting staff working hours (e.g. 7 – 2 or 11 – 6) may make it easier to provide this support.
10. Develop effective, comprehensive assessments for students in grades 5 and 8 to determine who will need semester or yearlong special courses (also to be developed) in basic literacy, non-fiction composition, and/or mathematics in grades 6 and 9. Such coursework may mean double dosing with fewer elective choices. Only highly effective teachers should be teaching these small group classes; therefore, appropriate incentives as well as accountability must be considered. (NOTE: I recognize that the Integrated Math course already exists at LHS.)

11. METCO students and their parents must be actively engaged, not only in individual achievement, but also as members of a group in the gap closing efforts of that group. This will require the sharing of assessment data from year to year to determine goals and assess progress, representation on the Task Force, and increased support for Lexington's efforts in this regard. I recommend that METCO Lexington, in conjunction with LPS leadership and the Task Force, develop a comprehensive plan to address several of the student, parent, and staff survey findings, namely:
    - Insufficient or lack of parental involvement and communication with the schools
    - Students' lack of confidence and effort in academic pursuits
    - Students' and parents' expectations, attitudes, and values with regard to education

12. I recommend that the LPS, in conjunction with METCO and the Task Force, develop a comprehensive plan to address several of the student, parent, and staff survey findings, namely:
    - Teachers' communication, conscious and unconscious, of low expectations
    - Over-referral to special education
    - Insufficient communication with parents
    - Insufficient cultural awareness and its effect on student learning

13. Mandatory, Lexington-supported and staffed, rigorous, summer school should be provided for significantly underachieving students in both Boston and Lexington.

14. METCO parents have asked for and should receive the opportunity to learn more about effective strategies parents can employ to help their children manage their schoolwork more efficiently and effectively. The Task Force should consider how and when to provide such opportunities. I recommend there be at least three programs developed, one for elementary parents, one for middle school parents, and one for high school parents.

15. Increasingly relying on data to drive instruction and instructional interventions necessitates that the Task Force investigate (1) the significant obstacles and difficulties created by our current technology and software systems, and (2) how to improve our ability to gather, analyze, access, and distribute data. For example, the simple fact that most teachers do

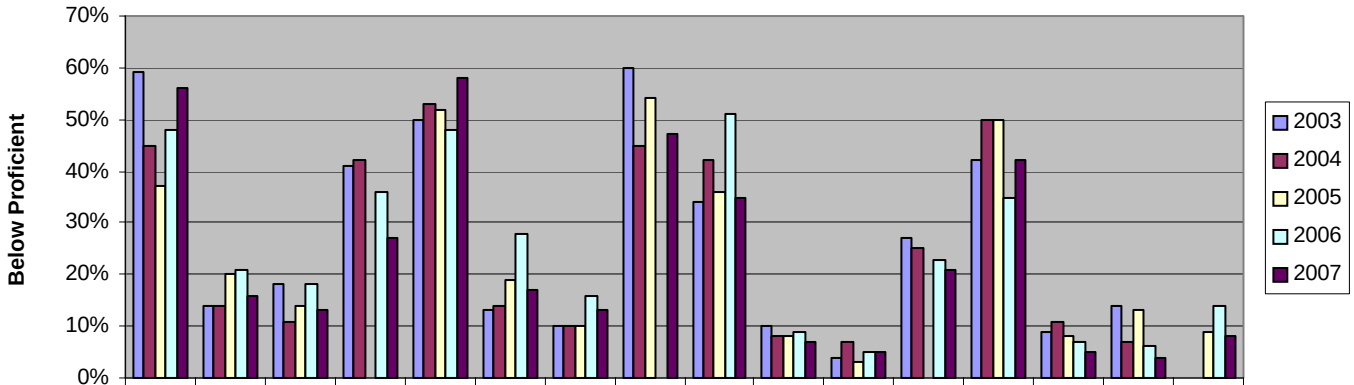
not have access to Excel severely limits capacity with regard to using data to help students.

16. In keeping with the truism, “We won’t fix what we will not recognize,” I recommend that this report be disseminated, in whole or in part, in hard copy or in presentation form, to all members of the Lexington school community, and that meaningful discussions focus on acknowledging, understanding, and collaboratively working toward reducing and then eliminating the achievement gap throughout the district.

More than once in this report, I have said that without the requisite will and leadership, the achievement gap in the Lexington Public Schools will persist, just as it has for decades. As James McDermott, English teacher at Worcester’s gap-closing University Park Campus School has said, “We know what works in education. The research is prolific. Amazingly, then, the question today is not about what works, but about why we do not implement what we know works in all schools for all kids.”

APPENDIX

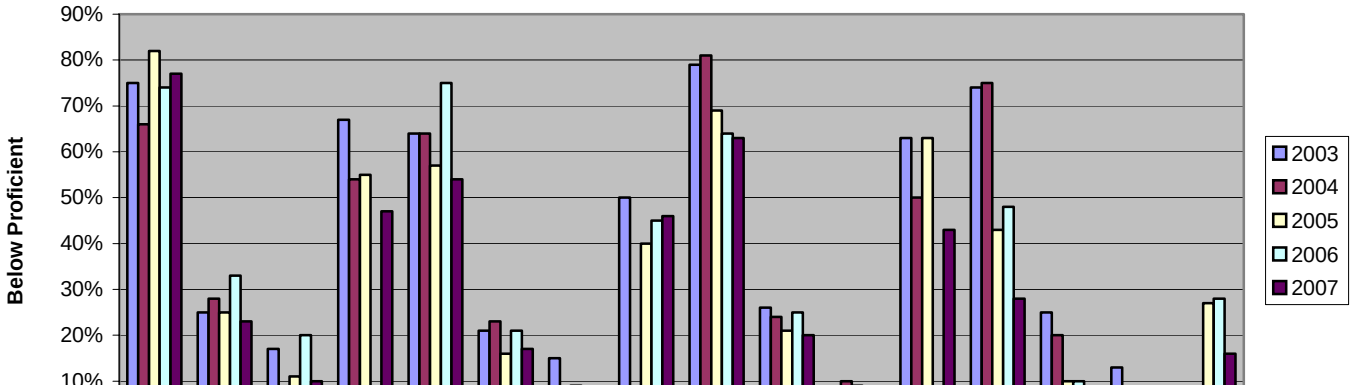
Reading/English Language Arts % BELOW PROFICIENT



	3 AA	3 WH	3 AS	3 HS	4 AA	4 WH	4 AS	4 HS	7 AA	7 WH	7 AS	7 HS	10 AA	10 WH	10 AS	10 HS
2003	59%	14%	18%	41%	50%	13%	10%	60%	34%	10%	4%	27%	42%	9%	14%	0%
2004	45%	14%	11%	42%	53%	14%	10%	45%	42%	8%	7%	25%	50%	11%	7%	0%
2005	37%	20%	14%	0%	52%	19%	10%	54%	36%	8%	3%	0%	50%	8%	13%	9%
2006	48%	21%	18%	36%	48%	28%	16%	0%	51%	9%	5%	23%	35%	7%	6%	14%
2007	56%	16%	13%	27%	58%	17%	13%	47%	35%	7%	5%	21%	42%	5%	4%	8%

Grade & Subgroup (Afr. Am'n., White, Asian, Hispanic)

MCAS Math % BELOW PROFICIET



	4 AA	4 WH	4 AS	4 HS	6 AA	6 WH	6 AS	6 HS	8 AA	8 WH	8 AS	8 HS	10 AA	10 WH	10 AS	10 HS
2003	75%	25%	17%	67%	64%	21%	15%	50%	79%	26%	3%	63%	74%	25%	13%	0
2004	66%	28%	6%	54%	64%	23%	7%	0	81%	24%	10%	50%	75%	20%	6%	0
2005	82%	25%	11%	55%	57%	16%	9%	40%	69%	21%	9%	63%	43%	10%	2%	27%
2006	74%	33%	20%	0	75%	21%	7%	45%	64%	25%	5%	0	48%	10%	5%	28%
2007	77%	23%	10%	47%	54%	17%	5%	46%	63%	20%	7%	43%	28%	5%	1%	16%

Grade & Subgroup (Afr. Am'n., White, Asian, Hispanic)

Below are the comparative 2007 and 2006 MCAS, BELOW-PROFICIENT results for Lexington, Boston, Wellesley, Weston, Brookline, Newton, Belmont, Bedford, and Concord-Carlisle. The data are reported for each grade level at which MCAS is administered for each of the 4 subgroups: African American, White, Asian, and Hispanic. The comparative data do show that the percentages of BELOW-PROFICIENT students in Boston, in the aggregate, are significantly greater than in Lexington. The data also show that our comparable communities with METCO programs are also experiencing significant achievement gaps.

2007

BOSTON	2007 MCAS: Percentage of Students *BELOW PROFICIENT*							
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**	**Gr. 10**
African American	E/LA	72%	75%	68%	70%	59%	53%	59%
White	E/LA	45%	44%	39%	37%	29%	21%	25%
Asian	E/LA	55%	47%	40%	37%	32%	26%	24%
Hispanic	E/LA	74%	77%	65%	65%	59%	52%	57%
African American	MATH	69%	81%	76%	83%	84%	85%	56%
White	MATH	45%	49%	47%	48%	55%	48%	27%
Asian	MATH	36%	37%	26%	27%	37%	32%	11%
Hispanic	MATH	71%	79%	72%	77%	82%	81%	51%
African American	SCI/TECH	-	-	88%	-	-	95%	-
White	SCI/TECH	-	-	56%	-	-	81%	-
Asian	SCI/TECH	-	-	54%	-	-	79%	-
Hispanic	SCI/TECH	-	-	84%	-	-	96%	-

LEXINGTON	2007 MCAS: Percentage of Students *BELOW PROFICIENT*							
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**	**Gr. 10**
African American	E/LA	56%	58%	63%	27%	35%	26%	42%
White	E/LA	16%	17%	14%	8%	7%	5%	5%
Asian	E/LA	13%	13%	7%	6%	5%	2%	4%
Hispanic	E/LA	27%	47%	18%	46%	21%	18%	8%
African American	MATH	64%	77%	58%	54%	66%	63%	28%
White	MATH	19%	23%	17%	17%	21%	20%	5%
Asian	MATH	10%	10%	3%	5%	8%	7%	1%
Hispanic	MATH	40%	47%	27%	46%	50%	43%	16%
African American	SCI/TECH			79%			79%	
White	SCI/TECH			25%			33%	
Asian	SCI/TECH			54%			23%	
Hispanic	SCI/TECH			36%			72%	

WELLESLEY	2007 MCAS: Percentage of Students *BELOW PROFICIENT*							
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**	**Gr. 10**
African American	E/LA	85%	40%	62%	-	9%	23%	33%
White	E/LA	10%	15%	11%	7%	4%	5%	4%
Asian	E/LA	14%	10%	20%	11%	6%	0%	0%
Hispanic	E/LA	24%	40%	17%	7%	15%	18%	17%
African American	Math	81%	80%	100%	-	73%	62%	39%
White	Math	16%	32%	22%	16%	20%	26%	6%
Asian	Math	19%	10%	25%	17%	13%	0%	0%
Hispanic	Math	43%	80%	50%	21%	46%	54%	9%
African American	Sci/Tech	-	-	82%	-	-	92%	-
White	Sci/Tech	-	-	28%	-	-	59%	-
Asian	Sci/Tech	-	-	30%	-	-	50%	-
Hispanic	Sci/Tech	-	-	41%	-	-	82%	-

WESTON	2007 MCAS: Percentage of Students *BELOW PROFICIENT*							
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**	**Gr. 10**
African American	E/LA	50%	36%	56%	-	-	-	-
White	E/LA	15%	13%	11%	10%	6%	1%	3%
Asian	E/LA	14%	6%	13%	7%	5%	0%	0%
Hispanic	E/LA	-	-	-	-	-	-	-
African American	Math	60%	71%	81%	-	-	-	-
White	Math	21%	24%	17%	25%	29%	22%	9%
Asian	Math	14%	17%	0%	7%	15%	45%	12%
Hispanic	Math	-	-	-	-	-	-	-
African American	Sci/Tech	-	-	88%	-	-	-	-
White	Sci/Tech	-	-	28%	-	-	32%	-
Asian	Sci/Tech	-	-	33%	-	-	40%	-
Hispanic	Sci/Tech	-	-	-	-	-	-	-

BROOKLINE	2007 MCAS: Percentage of Students *BELOW PROFICIENT*							
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**	**Gr. 10**
African American	E/LA	53%	54%	25%	33%	34%	26%	28%
White	E/LA	15%	21%	14%	7%	5%	7%	9%
Asian	E/LA	21%	28%	15%	11%	10%	7%	17%
Hispanic	E/LA	42%	32%	47%	22%	28%	25%	25%
African American	Math	65%	77%	41%	50%	72%	77%	36%
White	Math	22%	35%	24%	18%	19%	24%	12%
Asian	Math	16%	28%	14%	8%	11%	14%	4%
Hispanic	Math	36%	60%	54%	45%	52%	48%	39%
African American	Sci/Tech	-	-	53%	-	-	84%	-
White	Sci/Tech	-	-	25%	-	-	47%	-
Asian	Sci/Tech	-	-	27%	-	-	41%	-
Hispanic	Sci/Tech	-	-	61%	-	-	70%	-

NEWTON	2007 MCAS: Percentage of Students *BELOW PROFICIENT*						
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**	**Gr. 10**
African American	E/LA	62%	53%	50%	46%	43%	36%	43%
White	E/LA	19%	19%	13%	15%	10%	8%	9%
Asian	E/LA	23%	20%	17%	17%	12%	4%	8%
Hispanic	E/LA	43%	45%	25%	27%	46%	22%	19%
African American	Math	50%	69%	64%	52%	78%	78%	42%
White	Math	15%	22%	18%	21%	24%	29%	9%
Asian	Math	12%	25%	12%	11%	13%	13%	5%
Hispanic	Math	36%	50%	47%	45%	68%	67%	18%
African American	Sci/Tech	-	-	69%	-	-	82%	-
White	Sci/Tech	-	-	22%	-	-	45%	-
Asian	Sci/Tech	-	-	23%	-	-	34%	-
Hispanic	Sci/Tech	-	-	49%	-	-	87%	-

BELMONT	2007 MCAS: Percentage of Students *BELOW PROFICIENT*						
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**	**Gr. 10**
African American	E/LA	63%	-	-	38%	-	20%	10%
White	E/LA	19%	17%	12%	10%	9%	9%	10%
Asian	E/LA	10%	21%	8%	11%	10%	15%	13%
Hispanic	E/LA	20%	-	50%	39%	20%	15%	27%
African American	Math	72%	-	-	69%	-	85%	20%
White	Math	19%	25%	22%	24%	26%	30%	7%
Asian	Math	6%	30%	20%	4%	14%	12%	0%
Hispanic	Math	40%	-	50%	39%	47%	46%	18%
African American	Sci/Tech	-	-	-	-	-	88%	-
White	Sci/Tech	-	-	25%	-	-	38%	-
Asian	Sci/Tech	-	-	20%	-	-	23%	-
Hispanic	Sci/Tech	-	-	57%	-	-	54%	-

BEDFORD	2007 MCAS: Percentage of Students *BELOW PROFICIENT*						
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**	**Gr. 10**
African American	E/LA	54%	54%	30%	-	-	-	17%
White	E/LA	16%	23%	19%	8%	7%	7%	19%
Asian	E/LA	18%	23%	14%	21%	6%	0%	0%
Hispanic	E/LA	-	-	-	-	-	-	-
African American	Math	82%	69%	70%	-	-	-	16%
White	Math	20%	32%	29%	18%	43%	27%	11%
Asian	Math	18%	32%	22%	26%	30%	70-%	0%
Hispanic	Math	-	-	-	-	-	-	-
African American	Sci/Tech	-	-	70%	-	-	-	-
White	Sci/Tech	-	-	27%	-	-	44%	-
Asian	Sci/Tech	-	-	26%	-	-	29%	-
Hispanic	Sci/Tech	-	-	-	-	-	-	-

CON.-CARLISLE	2007 MCAS: Percentage of Students *BELOW PROFICIENT*	
Subgroup	**Content**	**Gr. 10**
African American	E/LA	29%
White	E/LA	3%
Asian	E/LA	10%
Hispanic	E/LA	10%
African American	Math	29%
White	Math	9%
Asian	Math	10%
Hispanic	Math	20%

2006

BOSTON	2006 MCAS: Percentage of Students *BELOW PROFICIENT*						
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**
African American	E/LA	72%	80%	73%	72%	65%	51%
White	E/LA	47%	52%	38%	41%	28%	20%
Asian	E/LA	54%	50%	40%	37%	38%	23%
Hispanic	E/LA	80%	79%	72%	70%	65%	56%
African American	MATH	76%	83%	84%	88%	89%	86%
White	MATH	44%	51%	53%	63%	54%	54%
Asian	MATH	38%	41%	36%	40%	43%	37%
Hispanic	MATH	76%	79%	79%	85%	86%	87%
African American	SCI/TECH	-	-	87%	-	-	96%
White	SCI/TECH	-	-	61%	-	-	77%
Asian	SCI/TECH	-	-	58%	-	-	80%
Hispanic	SCI/TECH	-	-	86%	-	-	96%

LEXINGTON	2006 MCAS: Percentage of Students *BELOW PROFICIENT*						
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**
African American	E/LA	48%	48%	48%	36%	51%	20%
White	E/LA	21%	28%	12%	8%	9%	6%
Asian	E/LA	18%	16%	6%	11%	5%	3%
Hispanic	E/LA	36%	-	41%	36%	23%	-
African American	Math	68%	74%	67%	75%	73%	64%
White	Math	21%	33%	21%	21%	24%	25%
Asian	Math	14%	20%	9%	7%	12%	5%
Hispanic	Math	45%	-	36%	45%	61%	-
African American	Sci/Tech	-	-	74%	-	-	80%
White	Sci/Tech	-	-	22%	-	-	34%
Asian	Sci/Tech	-	-	14%	-	-	19%
Hispanic	Sci/Tech	-	-	45%	-	-	-

WELLESLEY	2006 MCAS: Percentage of Students *BELOW PROFICIENT*						
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**
African American	E/LA	57%	83%	50%	8%	34%	-
White	E/LA	15%	22%	8%	5%	8%	4%
Asian	E/LA	13%	12%	15%	3%	4%	-
Hispanic	E/LA	-	-	-	-	10%	-
African American	Math	77%	100%	75%	58%	60%	-
White	Math	29%	39%	25%	19%	29%	31%
Asian	Math	19%	17%	25%	3%	0%	-
Hispanic	Math	-	-	-	-	30%	-
African American	Sci/Tech	-	-	92%	-	-	-
White	Sci/Tech	-	-	33%	-	-	41%
Asian	Sci/Tech	-	-	35%	-	-	-
Hispanic	Sci/Tech	-	-	-	-	-	-

WESTON	2006 MCAS: Percentage of Students *BELOW PROFICIENT*						
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**
African American	E/LA	38%	43%	-	36%	-	50%
White	E/LA	13%	19%	11%	10%	6%	9%
Asian	E/LA	4%	7%	5%	15%	4%	0%
Hispanic	E/LA	-	-	-	-	-	-
African American	Math	63%	63%	-	72%	-	84%
White	Math	20%	25%	29%	22%	28%	35%
Asian	Math	17%	13%	21%	19%	35%	0%
Hispanic	Math	-	-	-	-	-	-
African American	Sci/Tech	-	-	-	-	-	84%
White	Sci/Tech	-	-	35%	-	-	35%
Asian	Sci/Tech	-	-	26%	-	-	5%
Hispanic	Sci/Tech	-	-	-	-	-	-

BROOKLINE	2006 MCAS: Percentage of Students *BELOW PROFICIENT*						
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**
African American	E/LA	36%	48%	49%	29%	35%	40%
White	E/LA	17%	27%	13%	9%	10%	4%
Asian	E/LA	34%	34%	17%	12%	13%	8%
Hispanic	E/LA	43%	68%	39%	31%	34%	30%
African American	Math	64%	53%	71%	63%	68%	79%
White	Math	27%	29%	27%	18%	26%	23%
Asian	Math	27%	22%	20%	8%	21%	16%
Hispanic	Math	50%	68%	56%	46%	46%	59%
African American	Sci/Tech	-	-	83%	-	-	81%
White	Sci/Tech	-	-	31%	-	-	37%
Asian	Sci/Tech	-	-	32%	-	-	47%
Hispanic	Sci/Tech	-	-	78%	-	-	79%

NEWTON	2006 MCAS: Percentage of Students *BELOW PROFICIENT*						
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**
African American	E/LA	54%	66%	46%	41%	55%	31%
White	E/LA	20%	28%	16%	12%	17%	8%
Asian	E/LA	22%	34%	21%	10%	11%	8%
Hispanic	E/LA	46%	54%	40%	54%	45%	32%
African American	Math	68%	79%	59%	66%	76%	79%
White	Math	12%	32%	26%	22%	30%	33%
Asian	Math	20%	23%	19%	9%	12%	19%
Hispanic	Math	43%	65%	53%	76%	64%	62%
African American	Sci/Tech	-	-	43%	-	-	81%
White	Sci/Tech	-	-	21%	-	-	45%
Asian	Sci/Tech	-	-	27%	-	-	38%
Hispanic	Sci/Tech	-	-	50%	-	-	71%

BELMONT	2006 MCAS: Percentage of Students *BELOW PROFICIENT*						
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**
African American	E/LA	64%	50%	56%	-	52%	30%
White	E/LA	18%	19%	13%	8%	10%	5%
Asian	E/LA	18%	17%	10%	12%	12%	10%
Hispanic	E/LA	-	-	-	15%	17%	-
African American	Math	63%	90%	81%	-	100%	70%
White	Math	22%	33%	32%	29%	34%	29%
Asian	Math	21%	29%	17%	19%	20%	17%
Hispanic	Math	-	-	-	71%	58%	-
African American	Sci/Tech	-	-	75%	-	-	70%
White	Sci/Tech	-	-	21%	-	-	37%
Asian	Sci/Tech	-	-	31%	-	-	36%
Hispanic	Sci/Tech	-	-	-	-	-	-

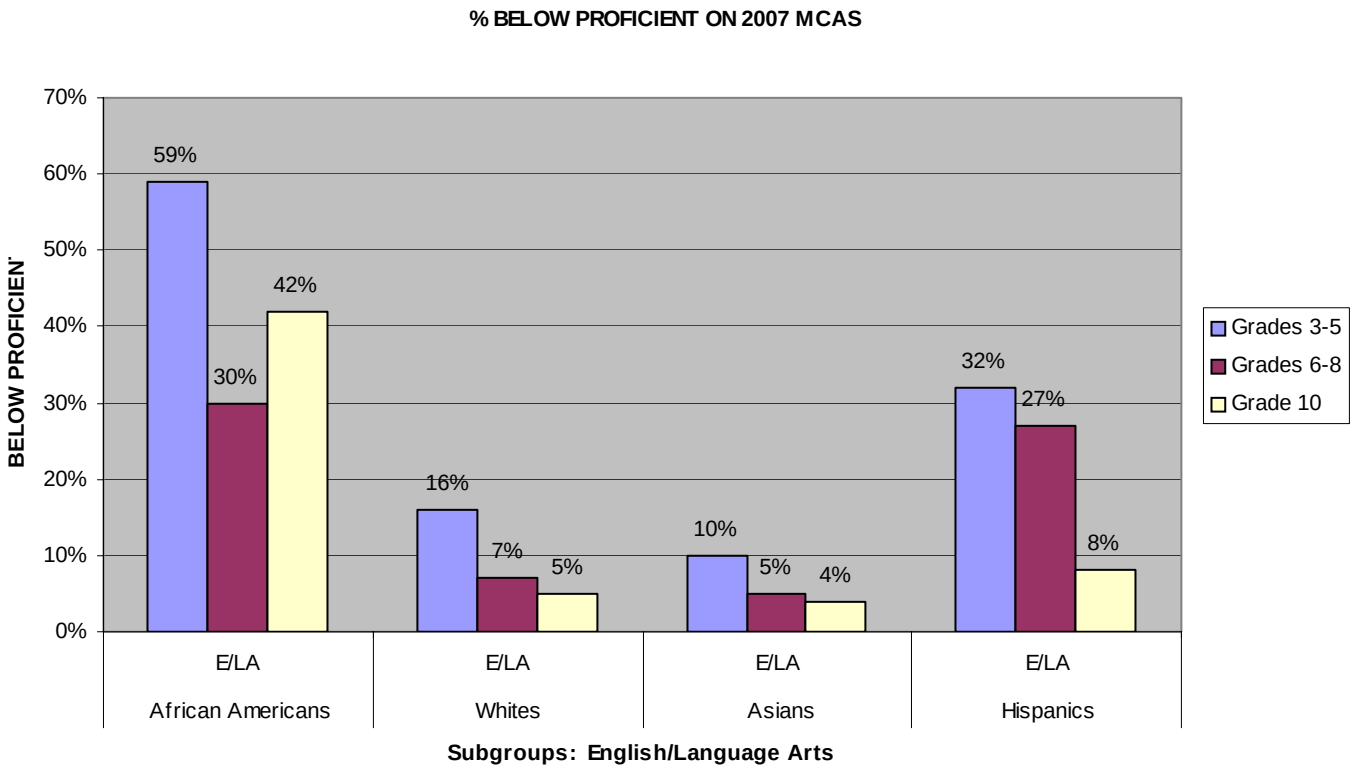
BEDFORD	2006 MCAS: Percentage of Students *BELOW PROFICIENT*						
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**
African American	E/LA	45%	60%	-	-	-	-
White	E/LA	20%	36%	12%	21%	10%	6%
Asian	E/LA	35%	25%	35%	16%	6%	7%
Hispanic	E/LA	-	-	-	-	-	-
African American	Math	45%	80%	-	-	-	-
White	Math	27%	41%	30%	33%	30%	29%
Asian	Math	17%	29%	30%	21%	12%	7%
Hispanic	Math	-	-	-	-	-	-
African American	Sci/Tech	-	-	-	-	-	-
White	Sci/Tech	-	-	29%	-	-	53%
Asian	Sci/Tech	-	-	30%	-	-	20%
Hispanic	Sci/Tech	-	-	-	-	-	-

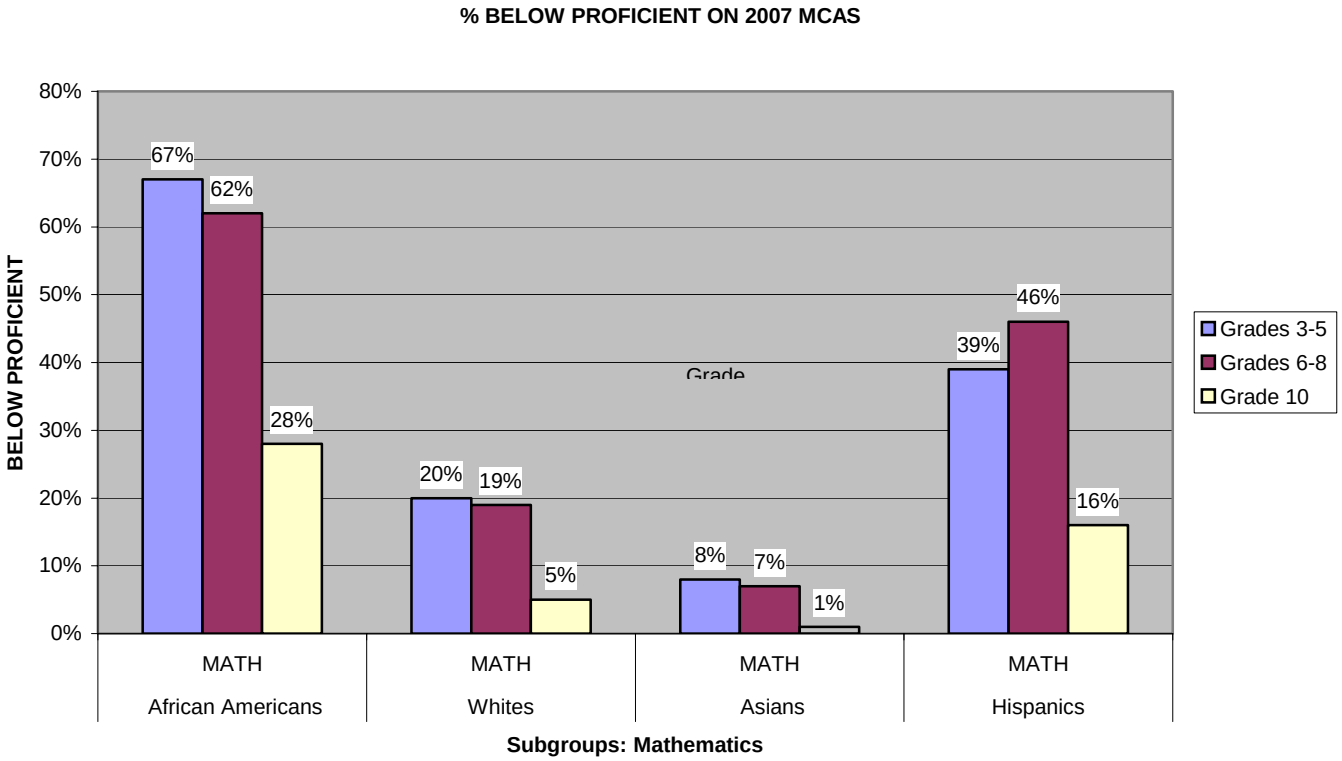
CON.-CARLISLE	2006 MCAS: Percentage of Students *BELOW PROFICIENT*	
Subgroup	**Content**	**Gr. 10**
African American	E/LA	18%
White	E/LA	5%
Asian	E/LA	0%
Hispanic	E/LA	-
African American	Math	47%
White	Math	9%
Asian	Math	0%
Hispanic	Math	-

Below are the 2007 MCAS, BELOW-PROFICIENT results for Lexington across the grades for the 4 subgroups, but with the actual number of students in that subgroup.

LEXINGTON	2007 MCAS: Percentage of Students in Subgroups *BELOW PROFICIENT*							
Subgroup	**Content**	**Gr. 3**	**Gr. 4**	**Gr. 5**	**Gr. 6**	**Gr. 7**	**Gr. 8**	**Gr. 10**
African Americans	**E/LA**	**56%** of 25	**58%** of 26	**63%** of 19	**27%** of 22	**35%** of 32	**26%** of 19	**42%** of 19
Whites	**E/LA**	**16%** of 316	**17%** of 305	**14%** of 307	**8%** of 329	**7%** of 372	**5%** of 363	**5%** of 372
Asians	**E/LA**	**13%** of 112	**13%** of 92	**7%** of 121	**6%** of 141	**5%** of 97	**2%** of 98	**4%** of 73
Hispanics	**E/LA**	**27%** of 15	**47%** of 15	**18%** of 11	**46%** of 13	**21%** of 14	**18%** of 22	**8%** of 25
African Americans	**MATH**	**64%** of 25	**77%** of 26	**58%** of 19	**54%** of 22	**66%** of 32	**63%** of 19	**28%** of 18
Whites	**MATH**	**19%** of 316	**23%** of 304	**17%** of 306	**17%** of 330	**21%** of 376	**20%** of 361	**5%** of 368
Asians	**MATH**	**10%** of 113	**10%** of 92	**3%** of 121	**5%** of 143	**8%** of 96	**7%** of 98	**1%** of 74
Hispanics	**MATH**	**40%** of 15	**47%** of 15	**27%** of 11	**46%** of 13	**50%** of 14	**43%** of 21	**16%** of 25
African Americans	**SCI/TECH**			**79%** of 19			**79%** of 19	
Whites	**SCI/TECH**			**25%** of 306			**33%** of 362	
Asians	**SCI/TECH**			**54%** of 121			**23%** of 98	
Hispanics	**SCI/TECH**			**36%** of 11			**72%** of 21	

Below are two bar graphs, one for ELA and one for math, showing the 2007 BELOW-PROFICIENT data for the 4 subgroups in the elementary grades, in middle school, and in grade 10.





Below is a table of grade 10 MCAS data for METCO students in 2006 and 2007 which disaggregates the scaled scores by gender. The scores indicate no significant differences.

Grade 10 MCAS	2007	2006
Boys' ELA Average	**245.3**	**242.8**
Girls' ELA Average	**244.7**	**234.7**
Boys' Math Average	**250.7**	**231.2**
Girls' Math Average	**251.0**	**230.7**

The table below indicates when and from where all METCO SPED students were referred.

	98	99	00	01	02	03	04	05	06	07	
Bowman	2	3	1	0	6	3	2	3	3	1	
Bridge	0	1	2	1	1	2	1	2	2	1	
Estabrook	1	1	1	0	2	1	2	1	0	1	
Fiske	0	0	0	4	2	2	1	1	8	0	
Harrington	0	1	1	1	1	1	0	1	1	1	
Hastings	0	1	2	0	2	2	2	1	0	1	
Diamond	0	0	0	0	0	0	0	0	2	0	
Clarke	0	0	0	0	0	0	0	0	0	0	
LHS	0	0	0	0	0	0	0	0	0	2	
Total	3	7	7	6	14	11	8	9	16	7	**88**

Summary of the conclusion of Karin Chenoweth's book, It's Being Done

What are the common characteristics of the gap-closing schools she visited?

1. **They teach their students**. This is not a flip thing to say; rather, in these schools teachers think deeply about what their students need to learn and how to make sure they learn it. It's all about learning in these schools, not just about teaching.
2. **They don't teach to the state tests**. They teach a rich, coherent curriculum tied to state standards.
3. **They have high expectations for their students**. They assume all students are able to meet high standards and believe their job is to help their students get there. High achievement is a topic of continuous conversation and encouragement at all levels.
4. **They know what the stakes are**. They know that without a good education, their students face the probability of a lifetime of poverty and dependence. They talk about this fact with their students.
5. **They embrace and use all the data they can get their hands on**. They know that achievement data represent a kid's face or a group of kids' faces. That's a life; that's a future.
6. **They use data to focus on individual students, not just a group of students**.
7. **They constantly reexamine what they do**. Tradition is never invoked as the only reason something is done. Change is the logical consequence of putting student achievement ahead of everything else.
8. **They embrace accountability**. They know they have an obligation not only to their students but to their communities to demonstrate that they are doing the job that has been entrusted to them to do – to educate future citizens.
9. **They make decisions on what is good for kids, not what is good for adults**. For example, schedules are created and teachers are assigned for the maximum benefit to students, not to senior staff.
10. **They use school time wisely**. School is a time for instruction, and instruction is treated as something almost sacred.
11. **They leverage as many resources from the community as possible**. This means everything from organizing outside mentors and volunteers to asking outside companies and organizations for help.
12. **They expand the time students – particularly struggling students – have in school.** This is done in many ways: before and after school programs, summer programs, intensive tutoring during vacations.
13. **They do not spend a lot of time disciplining students, in the sense of punishing them**. Discipline means leading the children in the most positive sense.
14. **They establish an atmosphere of respect**.
15. **They like kids**. Students are brought into conversations, student work is proudly displayed, and older students are specifically taught how to be role models for younger students.
16. **They make sure that kids who struggle the most have the best instruction**.
17. **Principals are a constant presence**. They walk the halls, visit classes, and know all the children
18. **Principals are not the only leaders**. Distributive leadership is made real.
19. **They pay careful attention to the quality of the teaching staff**.
20. **They provide teachers with the time to meet to plan and work collaboratively**. Schedules are built with embedded, professional collaboration in mind.
21. **They provide teachers time to observe each other**.

22. **They think seriously about professional development**. The general theory is that if students are weak in a particular area, that means that teachers need to learn more about it.
23. **They assume that they will have to train new teachers more or less from scratch and carefully acculturate all newly hired teachers**.
24. **They have high-quality, dedicated, and competent office and building staff who feel themselves part of the educational mission of the school**.
25. **They are nice places to work**. Expectations are high for all staff who work incredibly hard; however, the rewards and satisfaction make these schools wonderful places to work.
26. **In sum, the adults in these schools expect their students to learn, and they work hard to master the skills and knowledge necessary to teach those students**.

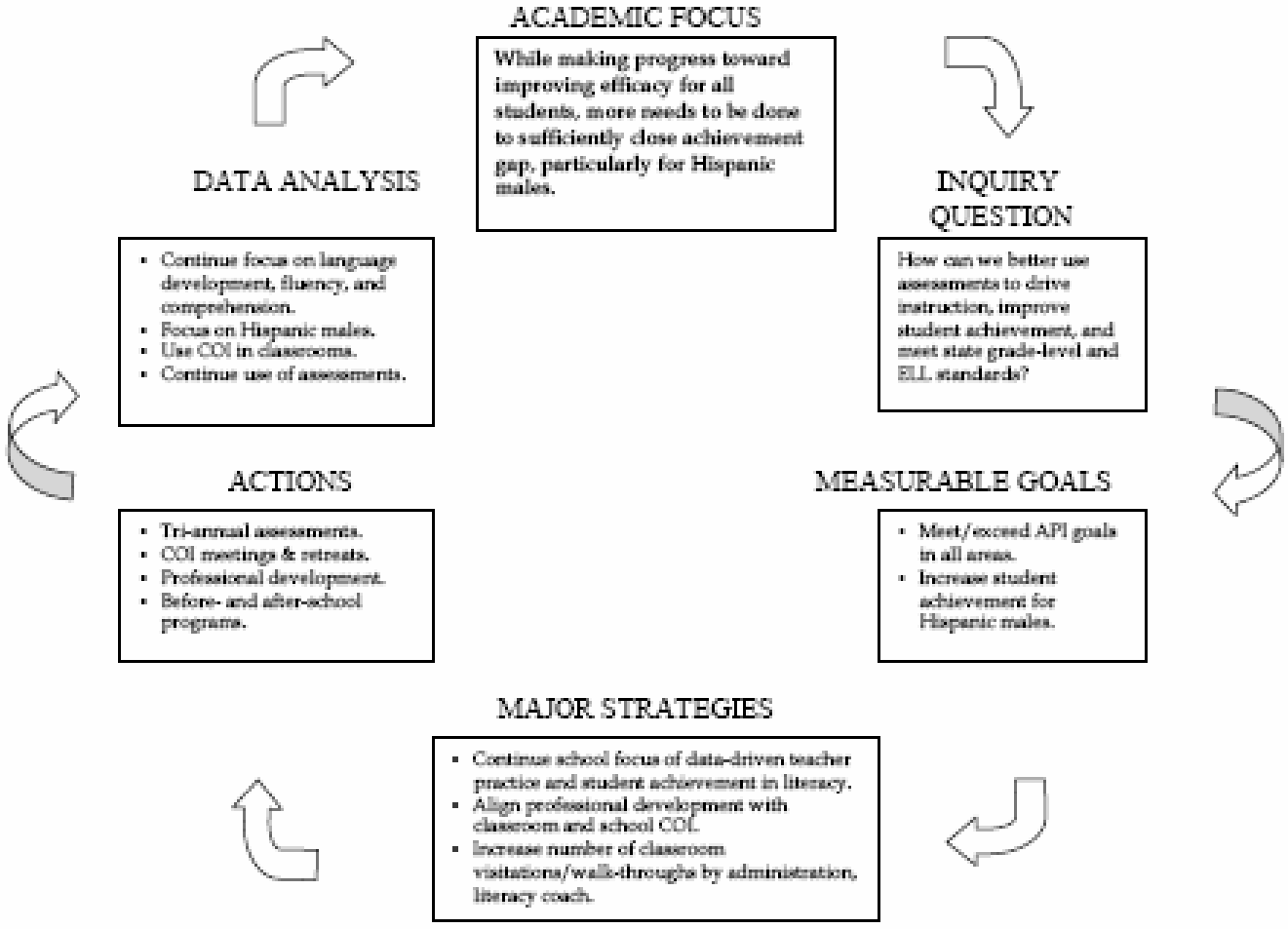
Below is the Action Research model described in the Kiley Walsh Symonds study, *After the Test: Closing the Achievement Gaps With Data.*

HOW ARE THEY DOING IT?

1. Cycle of Inquiry

Teachers at Belle Air are constantly using data to ask questions, challenging themselves to try new approaches, and evaluating results. It's a process that BASRC calls the Cycle of Inquiry (COI). This process is illustrated in Figure 13. Belle Air engages in this formal self-analysis on a schoolwide, grade-level, and classroom-level basis.

Figure 17. Belle Air School Cycle of Inquiry (2002–03)



Each grade level has its own question to investigate, analyzing how that grade can contribute to the school's goal of closing the achievement gaps. Similarly, each teacher conducts inquiry into his or her own classroom practice. Principal Addiego is serious about this process; each teacher's Cycle of Inquiry is included in his or her job evaluation.

Below is a section of the Kiley Walsh Symonds study, *After the Test: Closing the Achievement Gaps With Data.* It is an excellent example of how one school uses data to help children.

HOW ARE THEY DOING IT?

1. Data-Based Decision Making

Roosevelt uses data constantly to improve both academic achievement and the school's learning environment. When Stockey became principal in 1998, she conducted a thorough needs analysis, leading the teachers through a careful examination of student achievement data and conducting focus groups with parents, teachers, students, and community members. What she discovered was sobering. "African-Americans were underrepresented in everything," she remembered. "It was across the board. We were bottom feeders in every area. African-Americans were the majority performing in the first quartile. It was 'in your face' data. To me, you couldn't ignore it. But the other companion to that was the quiet data. The detentions, suspensions, referrals were African-Americans. That was another hard one that we had to look at."

Student Achievement Data. Over the past five years, Roosevelt has gone from what principal Stockey described as a "perfunctory" attitude toward looking at data to examining it with a passion. "[Roosevelt] has had a real climate shift in terms of comfort with data, and receptiveness to using it in meaningful ways," said Patrick Lee, data and assessment coordinator at Oakland Unified School District. "The administration has worked really hard with teachers so that they're not seeing the data as evaluative against them, but rather as pieces of information on which to reflect. Reflecting on data is a continual process that they undergo throughout the year."

The school uses a wide variety of diagnostic assessments, including a Curriculum Embedded Assessment (CEA) for writing, the Gates-MacGinitie Reading Test, and a math Problem of the Week (POW) also instituted in 2001. Each test is administered biannually, once in the fall and then in the spring. Teachers look at data from these assessments, and data from the STAR testing program (disaggregated by race and ethnicity), and determine strengths and weaknesses and plan their curriculum and lessons accordingly. "When we started with BASRC," explained Principal Stockey, "one of the things that we always looked at was the data. And people did so reluctantly. You find now they delve into the data."

Roosevelt has an infrastructure to support the consistent use of data with staff resources and time during the school day and at the end of the school year. Teachers have time for data analysis every Wednesday, a minimum-release day in which classes are 30 minutes each. Twice a month, the entire staff meets; in the other two weeks, there are either department meetings or committee meetings. To make sure the daily business of running a school doesn't crowd out time for discussing data, one staff meeting a month, called Standards in Practice, is devoted solely to this work. Similarly, the committee structure is intended to focus discussions. Every teacher serves on a committee. While every committee is data-informed, two in particular—the Data Committee; and the Curriculum, Instruction, and Assessment Committee—focus their efforts on analyzing data for the rest of the staff to use, including creating charts and graphs for departmental reflection. As one teacher reflected, "Everybody is given the data, and we take our time and look at it.

We do a lot of that. We throw ideas up on the table…. Before, there's been criticism that 'Well, so we've got all this data, what are we going to do differently?' And I think that's what's happening now; we're able to do more planning."

Use of data is further emphasized by Roosevelt's annual Day of Reflection. At the end of every school year since 1996, Roosevelt has held a Day of Reflection, a structured feedback session on the past academic year for the entire staff to analyze school data and suggest next steps. The leadership team then takes recommendations and, over a summer leadership team retreat, develops an implementation plan. The whole faculty then convenes for a fall retreat to develop a data-based action plan. The school also employs a full-time instructional coordinator, Jane O'Brien, who is responsible for managing all aspects of the assessment process, including making sure teachers receive necessary data in a timely manner and in a format that they can understand. "[Roosevelt's] approach to data has been very honest and forthright," said Lee, the data and assessment coordinator. "The principal and assistant principals have been very forceful in working with their staff on looking at the data and looking at differences in achievement. And asking teachers and teams of teachers 'Why do these patterns exist?' Asking hard questions. 'Why do these gaps exist?' "

Assistant Principal Theresa Clincy summed up Roosevelt's philosophy, explaining, "This school is data-driven. You don't know if you are digressing or improving if you don't look at data from one year to another. You make changes accordingly so you do make improvements over time. That's one of the first things I learned when I came on board with Darcel. Look at the data, see what it says. Go from there.

On the next 2 pages is a table comparing high-impact and average-impact high school practices from the study ***Gaining Traction, Gaining Ground: How Some High Schools Accelerate Learning for Struggling Students*** by the Staff of the EDUCATION TRUST.

School Practices at a Glance

School Practices at a Glance		
Subject	**High Impact**	**Average Impact**
Teacher Placement	Principals are more likely to consider student achievement data to determine which classes teachers will be assigned. They review and analyze achievement data, observe teachers' strengths and weakness to ensure struggling students get the teachers who can best accelerate learning.	Principals are more likely to assign teachers to classes based on teacher preference and seniority. For example, department heads often teach only honors and AP classes, while struggling students are taught by less experienced teachers.
Support for New Teachers	Support for new teachers is structured and focuses on curriculum and instruction. New teachers are given model lesson plans, are paired with veteran teachers who teach the same class, and given opportunities to observe master teachers.	Support for new teachers tends to focus on personal support. For example, new teachers meet with administrators to chat about how things are going. The focus is on teacher motivation, rather than helping teachers to develop skills to better serve their students.
Hiring Practices	Principals work within the district system, but aggressively and proactively identify and recruit highly qualified teachers. They may conduct informal interviews and urge good candidates to apply through the district. They may even raid other school faculties, looking for good teachers who will support the school's culture.	Principals tend to feel constrained by district procedures and do not feel empowered to work creatively with it. They tend to take the list of candidates provided by the district and choose the "best of the bunch" from among them, seldom recruiting teachers that they think might be a good fit.
Support for Students	Student support programs tend to be mandatory and are triggered by assessments that signal the student is struggling – participation in the programs is not an option.	Student support programs tend to be voluntary –students and parents are notified of availability of help, but the decision to participate is generally left up to them.
Early Warning System	Schools have "early warning" systems to catch students before they fail. Counselors analyze seventh- and eighth-grade student test scores for entering ninth-graders to identify students who are struggling. Identified students are assigned to a variety of supports, including mandatory summer school, freshman academy classes, or after-school tutoring.	Schools tend to offer support after students have failed a course – e.g. getting an "F" in a course may result in participation in a computerized skill-acquisition course
Grade-level Support	If possible, academic support programs for students are not remedial, but support concurrent grade-level courses, which allows students sufficient time over four years to complete the college-preparatory sequence of courses.	Academic support services for students tend to be remedial in nature. Struggling ninth-graders are placed in remedial courses, delaying access to grade-level work, thus limiting the time available to students to take the necessary sequence of college-preparatory courses.

School Practices At a Glance (continued)		
Subject	**High Impact**	**Average Impact**
Use of Time	Students who arrive behind in ninth grade spend more time in courses with substantial reading than do students who are proficient. Administrators also act vigorously to protect time by limiting announcements over the PA system to emergencies, prohibiting students from being pulled from class except for emergencies, and requiring instruction to be "bell to bell."	Administrators tend to consent to intrusions into academic time, such as announcements calling students to the office and early release for athletes.
Use of Data	Principals tend to be hands-on when it comes to analyzing data. They use data to actively supervise and oversee teacher and student performance. Principals institute formal methods of analyzing data with teachers to determine course content, strengths and weaknesses. Principals may review each student's transcripts to ensure correct placement or to recognize students who have improved performance.	Principals tend to rely on teachers and departments to use data to monitor student performance and are not as involved in the analysis. At one school, for instance, the principal copied data for teachers and asked them to analyze it, but did not work directly with departments to sort out the reasons behind student achievement or how to improve results.
Class Sizes	Administrators tend to make class sizes smaller for struggling students, even if this means larger class sizes for honors and AP classes.	Class sizes are relatively uniform, with no proficiency level having smaller classes than another.
Consistency	Teachers collaborate to ensure that course content is consistent no matter who is teaching.	Teachers work on their own to determine class content.
Standards	Teachers use standards and assessments to monitor their teaching. In courses that have no external standards and assessments, teachers may create them to ensure that students are getting the instruction they need.	Teachers use standards and assessments minimally.

Below is David Ingham's "From the Principal" document, posted on the home page of the Adams Middle School in Westland, Michigan.

During the past four years, Adams Middle School, in Westland, Michigan has successfully made a fundamental change in the school culture. We have gone from a traditional school, with teachers working in isolation, to a Professional Learning Community (PLC) with teachers working in effective, high-performing collaborative teams focused on learning. This building-wide cultural change is radically different from what has guided middle schools in the past.

Adams started this cultural transition four years ago with a shared mission, vision and goals focused on student achievement with a results orientation. Adams truly practices that, "Failure is Not an Option", and "All students will learn" if we answer and act on three basic questions:

- *What is it we expect students to learn?*
- *How will we know when they have learned it?*
- *How will we respond and what will we do when they don't learn?*

The school adopted four results oriented goals focused on student achievement:

1. Increase student achievement in English Language Arts (ELA).
2. Increase student achievement in Math.
3. Increase student achievement in Science.
4. Increase student achievement in Social Studies.

To begin to answer our first basic question, *What is it we expect students to learn?*, we have replaced teacher isolation with collaborative content area teams that are embedded into the daily life of the school. Adams has organized all teachers into the following content area teams: ELA, Math, Science, Social Studies, Physical Education, Fine Arts, Practical Arts and Counseling. These teams use our one-hour of contract time, previously used for staff meetings, each week for job-embedded professional development. They have collaborated in a collective effort to produce Pacing Guides for all courses offered at Adams. Our teachers gave up a degree of personal autonomy in exchange for collective authority in the form of Pacing Guides to standardize the question "What we expect students to learn". The teams have the benefit of time, focus, parameters, access to information and ongoing support as they engage in collective inquiry and action research. They work together in an ongoing effort to discover best practices and to expand their professional expertise.

During our weekly job-embedded professional development time, our content area teams have also collectively worked on our second basic question, *How will we know when they have learned it?* Teachers developed common assessments through this collaborative effort. Each team is developing a minimum of four common assessments by grade level for each content area. These common assessments provide every teacher with timely, relevant feedback on the achievement of his or her students in comparison to other comparable students attempting to meet the same standard. Our teachers then identify strengths and weaknesses in student learning and identify areas that need additional attention. Teachers are working together on these teams to support one another, do collective inquiry on best practices, and seek ways to improve individual and team results. To help ease their transition into this teamwork, each team developed its own norms or protocols to facilitate their work as a team. Another tool used in the team process is the team feedback sheet. Each week following the content team meeting, the team will turn in this sheet to the Principal. This provides a means for the Principal to respond with direct feedback to each team on a timely basis.

Adams is addressing our third basic question, *How will we respond and what will we do when they don't learn?* Collaborative teams review data from the common assessments and

identify students who need additional time and support. Adams has created a school-wide systematic approach to student interventions. This is called a “Pyramid of Interventions” which is used to monitor each student’s attainment of the essential learning on a timely, ongoing basis. This “pyramid” is a series of consistent, systematic procedures that ensure each student is guaranteed additional time and support when needed. This approach has produced powerful benefits for students and staff alike. Our school, although it has the largest population of economically disadvantaged students in the district, has surpassed the other middle schools in student achievement. The staff members take justifiable pride in the powerful results their collective efforts have produced, even as they look for additional ways to reach all students.

An additional positive outcome of this transition process has been the consolidation of the various school improvement requirements. Adams has taken the various traditional improvement plans, such as NCA School Improvement, MEAP Improvement, Title I and MI Plan and then streamlined their efforts into one consolidated plan with the four goals stated above. This has provided our staff with a single approach organized for sustained school improvement.

Adams is also trying a new approach to special education in hopes of bringing more students with disabilities up to grade level. Instead of sending these students to work with special-education teachers in separate special education rooms, we are bringing the special-education teachers into the regular education classrooms to work with them. This plan, known as the “inclusion model”, teams special-education teachers with regular English, math, science and social studies teachers. Students that were assigned to a special-education English class in the past, now go to a regular class with a special-education teacher there to help them adapt and be successful. In these new powerful classrooms, collaborative teaching or coteaching is the delivery system. The general and special-education teachers work together to teach a group of predominantly regular students along with some students with disabilities.

Adams Middle School has built a meaningful collaborative culture and therefore has transformed our school by making “learning” rather than “teaching” its fundamental purpose. We have overcome a tradition of teacher isolation to now work in effective content area teams. Our high performing collaborative teams have created content area goals and shared lesson plans, developed pacing guides, rubrics, protocols, parent communications, common assessments, and weekly feedback sheets. They analyzed student performance on assessments and the strategies they would use to improve upon that performance. These actions have resulted in dramatic improvements in student achievement. During the past two years, Adams has led the district in MEAP, our state assessment, scores for ELA, Math, Science and Social Studies and has led the district in 3 of 4 areas for each of the past two years. These scores are also well above the state averages. Adams also leads the district with an 89% Michigan School Report Card Grade. The Adams staff has turned aspirations into action, visions into reality, and this has produced increases in student achievement.

Below is the *Pyramid of Interventions* from Adams Middle School in Westland, Michigan.

ADAMS MIDDLE SCHOOL

"PYRAMID OF INTERVENTIONS"

Retention Summer School Special Education Placement Screening for Special Education Placement Child Study Team Referral	Administration Level
Plan for Success Meetings Classroom Teacher Written Documentation Forms Completed Erase Truancy Program for Truant Students Conflict Resolution/Peer Mediation Counselor Conference with Student/Parent Counselor Referral to Mentoring/Tutoring/HW Club … Counselor Phone Calls to Parents Counselor Meeting with Student Teacher Referrals (Counseling Office& Main Office/Discipline) School Social Worker/School Psychologist Referral Students placed on Daily Progress Reports/Contract Teacher Reports/Grades Posted/Weekly Progress Updates sent home	Counselor Level
Teacher Conferences with Parent Directed Lunch Study Homework Club Study Buddy Assignment Reteaching Advanced/Gifted Student Support Change of seat Teacher phone calls home 6th Grade Orientation Referral to Academic Literature Class 6th Grade Confidential Counseling Information Sheet/Placement	Teacher Classroom Level

EXTRA ordinary DISTRICTS

The Education Trust

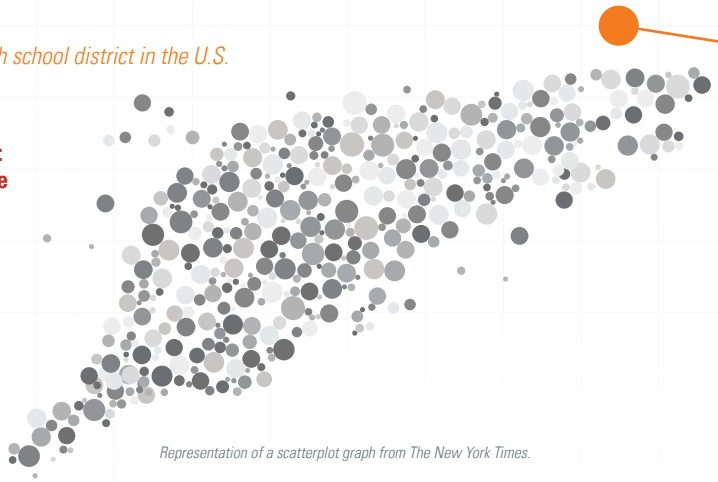
Ordinary school districts that get extraordinary results

ExtraOrdinary Districts is a podcast from The Education Trust that demonstrates the power that schools and school districts have to educate all children, regardless of background. To identify leading districts, we used an analysis of almost 12,000 districts done by a team led by Stanford University's Sean Reardon.

Episode 2: Lexington, Massachusetts

Educational attainment in each school district in the U.S.

Lexington, Massachusetts: 3.8 grade levels above average



Representation of a scatterplot graph from The New York Times.

3 grades ahead of average
2 grades ahead of average
1 grade ahead of average
About average
1 grade behind average
2 grades behind average
3 grades behind average

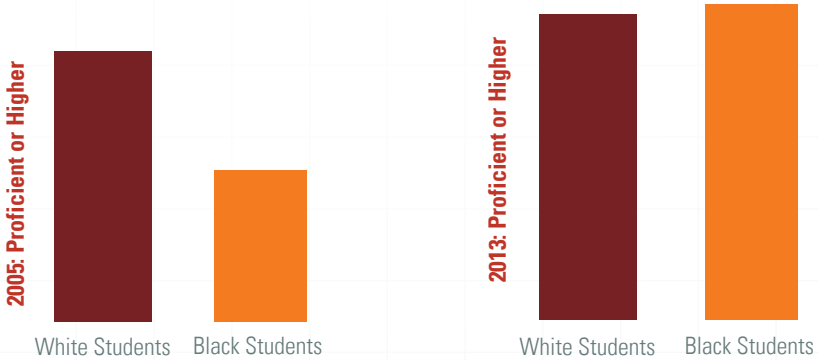
POORER ← *Parents' socioeconomic status* → **RICHER**

Why focus on Lexington? Lexington, Massachusetts emerged as the district where third through eighth graders perform at the very top of the nation — 3.9 grade levels above the average. But there's another way it stands out: Unlike other wealthy, mostly White school districts, it does not have large achievement gaps between its White students and its African American and Hispanic students, or between its students from high-income families and low-income families. And at the high school level, just about every 10th grader — of every group of students — has scored proficient or advanced on the Massachusetts high school graduation test for several years running. It's important to note that this was not always the case. In 2005, African American, Hispanic, and low-income students were significantly behind their White peers. This dramatic improvement raises the question: What did Lexington do?

Basic Facts

6,925 *Students*
4% *Black*
3% *Hispanic*
6% *English language learners*
60% *White*
5% *Economic disadvantage*
Number of schools: **10**
14% *Students with disabilities*
Graduation rate:
Lexington: 97%
Massachusetts: 87.5%

English Language Art Mass.10th Grade Graduation Test



Source: Massachusetts Department of Education, 2017

Ordinary school districts that get extraordinary results

Episode 2: Lexington, Massachusetts

What contributed to Lexington's improvement?

Lexington's superintendent recognized the district's achievement problem and determined to solve it. Initially, he focused on ensuring that African American and Hispanic students were better served and brought together a wide array of teachers, school leaders, and parents to come up with ideas to solve the problem of the gap in achievement.

Within a year, he shifted the focus slightly, recognizing that although poor performance by African American and Hispanic students was easily identifiable, there were other students who were failing to achieve in similar ways. Thus, the solutions initially designed to help a subsection of students became available to any student who needed help.

Such solutions included temporary, mandatory tutoring that would kick in any time a student faltered without waiting for the semester or year-end grades.

But administrators also there recognized that classroom instruction needed improvement. This was not easy to admit — Lexington teachers were used to being thought of as being among the best. But over time, they realized that if they were to ensure that all students learn at high levels, they would have to join together in deep collaboration about instruction.

Lexington underwent an intense round of professional development, much of it aimed at developing professional learning communities, which provide a structure for teacher collaboration. Although this initially required a considerable investment of resources (some of which came in the form on one-time federal funds after the 2008 financial crisis), Lexington no longer spends much on outside professional development. Instead, it holds regular "Lexington Learns" days, in which educators from the district learn from each other.

At every stage, Lexington educators have chosen meaningful ways to measure whether what they were doing succeeded in improving students' academic achievement and sense of well-being, as measured by surveys. When what they were doing seemed successful, they continued and expanded. When not, they abandoned. In this way, they kept a focus on continual improvement.

What can other districts learn from Lexington?

- Disparities in achievement can be difficult for educators to face head on and take responsibility for. But a superintendent who makes it clear that achievement gaps are unacceptable and helps support teachers and principals through a process of improvement can have a huge effect.
- Systems of improvement mean not only focusing on additional help for students but ensuring that teachers and principals continually improve their knowledge and skills. They also need to be able to sit together to monitor their progress and make any necessary adjustments.
- Parents can be an important voice in any kind of school improvement process, but time and effort must be put into building trust with parents.