

McClintock Partners In Education



Program Evaluation: McClintock Partners In Education, 2007 – Present

June 2015

This publication was produced at the request of McClintock Partners In Education. It was prepared independently by the UNC Charlotte Urban Institute.

Acknowledgements

Funding Provided by:

McClintock Partners In Education Donors
Charlotte-Mecklenburg Schools

Many Thanks for the Support and Cooperation of:

McClintock Faculty and Staff
McClintock Students and Families
McClintock Partners In Education Volunteers
Christ Lutheran Church Staff
Charlotte-Mecklenburg Schools

Authors

Diane Gavarkavich, MPH
Data and Research Specialist
UNC Charlotte Urban Institute
Institute for Social Capital

WITH ASSISTANCE FROM

Lauren Zachary
Social Research Analyst
UNC Charlotte Urban Institute

Amy Hawn Nelson
Director, Institute for Social Capital
UNC Charlotte Urban Institute

David Hill
Database Administrator
Institute for Social Capital

Contents

Introduction	7
Program Overview	8
Evaluation Context.....	9
McClintock Middle.....	9
Major McClintock Events	9
Student Electives.....	10
Student Engagement.....	11
Parent Engagement.....	12
Charlotte-Mecklenburg Schools/North Carolina.....	13
Christ Lutheran Church	13
Academic Literature.....	14
Methodology	14
Results	16
Part I: Creating Future Stories.....	16
McPIE Served Students.....	16
School Achievement Findings	19
Part II: Building Community.....	51
School Community.....	51
Larger Community	53
Public-Private Partnership.....	53
Part III: Supporting Families	56
Parent Engagement.....	56
Younger Siblings.....	59
Crisis Intervention.....	60
Role of Religion.....	60
Part IV: Inspiring Volunteers.....	61
Overview	61
Motivations.....	61

Discussion.....	63
Top 12 Takeaways	63
Strengths & Limitations.....	65
Appendix A: Timelines & Program Descriptions.....	66
Family Night.....	66
Summer Camps.....	69
Other.....	72
Appendix B: Raw Data.....	73

Figures & Tables

Figure 1: 2013-2014 Racial/Ethnic Make-up	16
Figure 2: 2013-2014 Percent Economically Disadvantaged	17
Figure 3: Average Days Absent (2008 – 2014).....	20
Figure 4: Average Days Absent Comparison (2013-2014).....	20
Figure 5: Percent Experiencing Chronic Absence (2008-2014)	21
Figure 6: Change in Chronic Absences	22
Figure 7: Change in Average Days Absent	23
Figure 8: Average Days Absent in 9th Grade (2009 - 2014).....	24
Figure 9: Percent Chronically Absent in 9th Grade (2009 - 2014).....	24
Figure 10: Average Days Absent 9th Grade Comparison (2013-2014)	25
Figure 11: Average Days Suspended	27
Figure 12: Percent Experiencing at Least One Suspension.....	27
Figure 13: Change in Percent Experiencing at Least One Suspension.....	29
Figure 14: Average Days Suspended in 9th Grade (2009-2014)	30
Figure 15: Percent Experiencing Suspension in 9th Grade (2009-2014).....	30
Figure 16: 8th Grade Math	34
Figure 17: 8th Grade Science.....	34
Figure 18: Algebra.....	34
Figure 19: Biology	34
Figure 20: Common Core 8th Grade Math	35
Figure 21: Common Core 8th Grade Science.....	35
Figure 22: Common Core Math I	35
Figure 23: Common Core Biology	35
Figure 24: SGSS Participant’s Pre, Post Drawing of “Scientist”	37
Figure 25: 2011 SGSS Participants 5 th Grade Pass Rates.....	38
Figure 26: 2011 SGSS Participants & Comparisons 5 th to 6 th Grade Math.....	39
Figure 27: 2011 SGSS Participants & Comparisons 5th through 8th Grade Math.....	39
Figure 28: 2011 SGSS Participants & Comparisons 5th and 8th Grade Science	40
Figure 29: 2012 SGSS Participants & Comparisons 5th Grade Pass Rates.....	41
Figure 30: 2012 SGSS Participants & Comparisons 5th to 6th Grade Math	41
Figure 31: 2013 SGSS Participants & Comparisons 5th Grade Pass Rates.....	42
Figure 32: 2013 SGSS Participants & Comparisons 5th to 6th Grade Math	42
Figure 33: 2011 Summer Science Experience Participants & Comparisons Pre and Post Pass Rates.....	43
Figure 34: 2012 Summer Science Experience Participants & Comparisons Pre and Post Pass Rates.....	44
Figure 35: 2013 Summer Science Experience Participants & Comparisons Pre and Post Pass Rates.....	45
Figure 36: 2014 Summer Science Experience Participants & Comparisons Pre Pass Rates	45
Figure 37: Comparison of 8 th Grade Math to CMS.....	47
Figure 38: Comparison of 8 th Grade Science to CMS.....	47
Figure 39: 2012-2013 to 2013-2014 Math Growth.....	48
Figure 40: 2012-2013 to 2013-2014 Science Growth.....	48

Table 1: Short-Term Suspensions per 100 Students.....	28
Table 2: Summer Camp Timeline	69
Table 3: Average Days Absent (Middle School Years)	73
Table 4: Percent Chronically Absent (Middle School Years)	73
Table 5: Average Days Absent (9th Grade).....	74
Table 6: Percent Chronically Absent (9th Grade).....	74
Table 7: Average Days Suspended (Middle School Years).....	75
Table 8: Percent Experiencing Suspension (Middle School Years)	75
Table 9: Average Days Suspended (9th Grade)	76
Table 10: Percent Experiencing Suspension (9th Grade).....	76
Table 11: Percent Passing Math and Science Exams.....	77
Table 12: Sixth Grade Science Sleuths (SGSS) 2011 Cohort.....	78
Table 13: SGSS 2012 Cohort.....	78
Table 14: SGSS 2013 Cohort.....	79
Table 15: The Summer Science Experience 2011 Cohort (Rising 8th Only).....	79
Table 16: The Summer Science Experience 2012 Cohort (Rising 8th Only).....	79
Table 17: The Summer Science Experience 2013 Cohort (Rising 7th Only).....	80
Table 18: The Summer Science Experience 2014 Cohort.....	80

Introduction

McClintock Partners In Education (McPIE) is a partnership between McClintock Middle School, Christ Lutheran Church (CLC), and the community. It is an outreach program of Christ Lutheran Church, a 501(c)(3) organization. The mission is to “ensure that McClintock students have access to the support, opportunities, and resources which will provide them with the best education available anywhere and to ensure their future, life-long success in the 21st century world.”

The motto, however, is more telling of the work that McPIE engages in each day:

*Creating Future Stories
Building Community
Supporting Families
Inspiring Volunteers
So that all McClintock Students Succeed
We are McClintock Partners In Education*

McPIE contracted with the UNC Charlotte Urban Institute (the Institute) in the spring of 2014 to evaluate their work. This report is the culmination of a year of qualitative and quantitative data collection and analysis.

The findings are framed around the McPIE motto. Creating Future Stories focuses on the students: the quantitative findings from school data along with qualitative data from interviews and surveys. Building Community revolves around the public-private partnership and the role McPIE plays in creation of community. Supporting Families studies parent engagement, crisis intervention, and the role of religion. Finally, Inspiring Volunteers considers the motivation of volunteers and their experiences.

In addition to this report, multiple addendum reports were prepared. The addendums are as follows: methodology, academic literature, and recommendations. These were prepared separately to enhance readability of the main report, as well as provide information to parties interested in different aspects of the partnership and this evaluation work.



Program Overview

McClintock Partners In Education began in the spring of 2007 after then superintendent of Charlotte-Mecklenburg Schools (CMS), Peter Gorman, called a faith summit and challenged the faith community to become more involved in their community's schools. Christ Lutheran Church committed itself to supporting McClintock Middle School. **At the time, McClintock Middle School had just a handful of volunteers.**

To get started, CLC recruited a handful of volunteers to work one-on-one with struggling students. When the school year came to an end the volunteers were concerned what the summer would hold for their students and a summer camp at the church was quickly established. Concurrently, planning for the fall began. CLC wanted to do more than just tutoring and asked McClintock to identify the major, "deeper" needs of the school. McClintock staff identified building community as the major need and the idea of Family Nights was devised.

From there, McPIE was established and the programming began to evolve:

- After two years of camp at CLC, a Freedom School literacy camp site opened. Students were also sponsored to go to other camps throughout the community and sleep away camps in the mountains.
- In the 2010-2011 school year, a Science, Technology, Engineering, and Math (STEM) focus was established and a science camp was organized for rising 6th graders. The program would grow to include a camp for 7th and 8th graders.
- Family Nights spent two years as a place for meals, tutoring and homework. Today Family Nights have up to 18 middle school club options, five parent groups, a nursery, and opportunities for younger and older siblings for 13 weeks each semester.
 - Middle School clubs are based on volunteer and student interests. Many fall under the categories of STEAM (Science, Technology, Engineering, Art and Math); Computer Building club and Robotics have been strongholds since 2009.
 - Adults can participate in an English as a Second Language (ESL) course, Bible Study, Parent U or two evidence-based Pathways Out of Poverty programs: Getting Ahead in a Just-Gettin'-By World or Women's Journey.
 - Transportation and meals are also provided.
- Teachers receive support in the classroom and financially through both DonorsChoose.org¹ and the ability to request small funds directly from McPIE. To date, over \$135,000 in projects on DonorsChoose.org have been funded, more than any other school in CMS.

Currently, there are over one hundred active volunteers each week. Volunteers are not only CLC members, but community members, former parents and students, and teachers. For more information on McPIE programming see Appendix A.

¹ DonorsChoose.org allows teachers to post classroom project requests for public funding, learn more at <http://www.donorschoose.org/>.

Evaluation Context

After the 2010-2011 school year, three low-performing, high poverty CMS middle schools were closed. Initially, McClintock Middle was also on this list. According to current Principal Paul Williams, “This school would have been shut down had it not been for the advocacy of McPIE.” While the physical building would still be torn down, McClintock would stay open on the same property with the construction of a new building. McClintock would also leverage the programming started by McPIE and add a STEAM magnet to attract more students.

Enrollment was low (approximately 630) when McClintock was nearly closed. In 2014-2015, four school years later, enrollment is 875 with 100 6th grade students enrolled in the STEAM magnet.

McClintock Middle

McPIE provides numerous programs and opportunities to students and their families at McClintock Middle School. There are, however, other factors contributing to the outcomes of interest for McPIE. This is not to say that we cannot explore relationships between McPIE and student outcomes, but must recognize other variables. First we look at some major McClintock events, then consider the evolution of student electives and other student and parent engagement efforts.

Major McClintock Events

McClintock was almost closed after the 2010-2011 school year. Since then, the school has a new principal, new building, and a STEAM magnet. Each of these events affects the context in which McPIE does its work and the outcomes that can be attributed to the program.



I. 2011 Threat of Closure: McPIE was instrumental in stopping McClintock from being shut-down. Thanks to a white paper from a McPIE volunteer coupled with the energy McPIE was bringing to the school, McClintock stayed open and has since served over 2,000 students who would have been dispersed elsewhere.

2. 2012 New Principal: Principal Williams joined McClintock for the 2012-2013 school year. He has been highly engaged in McPIE, serving on the board and attending nearly every Family Night. His efforts have also driven school improvement, which helps McPIE, though school-level changes make attributing outcomes specifically to McPIE difficult. As Principal Williams stated:

I would say McPIE was a shining light and they did a lot to support the school... now that we've improved things that we're doing in the school day we can enjoy more of each other's time and talk more about individual kids and not so much about big overarching problems.

3. 2013 New Building: McClintock moved into a new school building for the 2013-2014 school year.

One long-time volunteer noted that “moving into the new building has made a huge difference in the attitude of the kids.”

The new building has had a positive impact on Family Night attendance as the old building had limited space for serving meals. Further, the new building has been described as much more inviting and enjoyable to be in. The previous school building had been built in 1955.

4. STEAM magnet opens: The STEAM magnet opened in the 2014-2015 school year with 100 6th grade students coming from outside the McClintock boundaries. Research in future years can take into account the impact of the magnet on McClintock and on McPIE participation and outcomes. Something that led to the opening of the STEAM magnet was the slate of electives, explored below, which has had a major impact on the school and McPIE served students. All students have access to the STEAM electives, not just the magnet students, for which McPIE strongly advocated.

Student Electives

One of the outcomes of interest for this report is academic success defined by performance on end of grade exams while at McClintock and end of course exams for students who have moved on to high school. In the past three years, the array of electives students can choose from has evolved. What were once just McPIE clubs, specifically Robotics, NASCAR Ten80, and Engineering, are now semester and year-long electives. To illustrate the evolution, below is one teacher's trajectory over six years.



Due to McPIE, McClintock students are getting more exposure to STEM curriculum. However, while we have the data on which clubs the students participated in, we do not have transcripts to account for class-time as well. Additionally, the STEM classes are also taken by students who do not participate in McPIE programming. Therefore, this report cannot fully contribute the STEM and academic impact that the 2007 initiation of McPIE set into motion.

Student Engagement

Like most CMS and NC middle schools, McClintock Middle offers extracurricular activities. Participation in extracurricular activities has been shown to improve attendance and behavior and is positively associated with at-grade level performance.²

Interviewees provided some examples of what McClintock offers (or has offered in the past seven years) for students:

- Nine sports: baseball, basketball, cheerleading, football, soccer, softball, step team, track and field, and volleyball
- Girls on the Run
- Male and female empowerment programs
- Future Business Leaders of America

There are also opportunities for students to be engaged during the school day beyond their classrooms. Students can apply to be a Media Specialist assistant or on the Positive Behavior Intervention System student committee. There is also an on-site Communities in School coordinator who works with a caseload of students on dropout prevention and college readiness.

Additionally, for several years McClintock had a program called SWAG (Students Will Achieve Goals), which was one hour of club time built into each week. Teachers created their own clubs around topics they and their students were passionate about, some of which were STEM related. The program was discontinued when it was decided that the goals of providing students with opportunities to do what they like and find what they are passionate about were being fulfilled by McPIE Family Nights.

While we cannot completely control for other extracurricular participation, comparison points of non-McPIE participating McClintock students and Eastway Middle students should help shed light to the specific McPIE impact.

² Stearns, E., Glennie, E.J., (2010). Opportunities to participate: Extracurricular activities' distribution across and academic correlates in high schools. *Social Science Research*, 39, 296-309.

Parent Engagement

Parent engagement is a major component of McPIE, and while most interviewees and parents said that their main interaction with the school was through McPIE (“[Most everything runs through McPIE in terms of parents](#)”), there are other opportunities for parents to engage with the school.

Parents are invited to watch sports games and performances by the band, chorus and dance classes. Throughout the school year there are also open houses and curriculum nights. The open houses are for elementary school students and their parents interested in the STEAM magnet. Curriculum nights are for parents of current students. Curriculum nights are held on Tuesdays as the barriers of transportation, meals and childcare are overcome because of Family Night.

Most significantly, there is an active, yet small, Parent Teacher Organization (PTO) at McClintock. The meetings are limited as they are poorly attended and there is not enough business for frequent meetings. Even with limited participation, the PTO does the following:

- Helps organize the open house events and curriculum nights
- Holds fundraisers
- Raises awareness of parents about school happenings
- Provides donations to teachers for incentive programs
- Staff appreciation activities/giveaways
- Provides volunteers for school events such as a Fall Festival

The PTO works closely with McPIE, the PTO president serves on the McPIE board, so overlap is limited. As we will explore in the [Supporting Families](#) section, it is important for parents to have positive interactions with the school and while limited, the PTO also provides this opportunity.

Charlotte-Mecklenburg Schools/North Carolina

McClintock Middle is one of 30 schools in CMS that serves only middle school students. In the 2013-2014 school year, it had the 7th highest percentage of economically disadvantaged students of the district's 30 middle schools. With the addition of the STEAM magnet, it has become the only middle school STEAM magnet. There are four other middle school STEM magnets.

Over the past few years there have been a few policy changes across North Carolina that are important to note when considering academic outcomes since 2007. In the 2012-2013 school year, students transitioned from the former North Carolina Standards to the Common Core curriculum and test. This shift resulted in a substantial decrease in proficiency in reading and mathematics across the district and state.³ Additionally, until 2013-2014 all tests were scored on a scale of 4, including the first year of Common Core. The second year of Common Core introduced a five point scale, with a 1 and 2 indicating below grade level proficiency and at or above grade level proficiency changing from 3 and 4 to 3, 4, and 5. These changes will be reflected in the results of the report.

A statewide school grading system came into effect in spring 2015. The school grade is determined 80% by proficiency and 20% by growth on math, reading and science the previous school year. There are many critics of the grading system, both the use of a letter grade to describe the outcomes of a school and the percentages used to calculate the grade. Regardless, McClintock was given an F. Of 157 schools in CMS, McClintock was one of 11 schools to receive an F, including two other middle schools.

Christ Lutheran Church

Christ Lutheran Church is an Evangelical Lutheran Church in America congregation serving 3,000 members with approximately 1,200 worshipping each week. Before McPIE, CLC participated in small-scale community service such as Habitat for Humanity builds, but nothing like the scope of McPIE. Now, eight years after the start of McPIE, hundreds of members volunteer. Additionally, CLC members “do not have deep pockets,” but so believe in the work that the \$94,000 cost of Freedom Schools was funded in just five weeks last year. In addition, members give generously to the McPIE general fund while overall church giving has strengthened.

McClintock Middle was chosen for proximity, as anyone who lived in the CLC neighborhood would be zoned for McClintock. Beyond the work that is considered part of McPIE outreach, CLC also provides crisis assistance for McClintock families and sponsors approximately 40 families each Christmas.

³ The percent of CMS students scoring proficient dropped by 20 or more percentage points in math, reading and science. Source: <http://www.cms.k12.nc.us/mediaroom/Documents/CMS%20EOY%20Data%20Presentation%202013-14.pdf>

Academic Literature

Academic literature on out-of-school time programming, community collaboration, and STEM programming was collected and reviewed. Major findings from this research as well as research concerning academic, attendance, and behavior can be found throughout this main report. **A summary of articles pertinent to McPIE can be found in the academic literature addendum.**

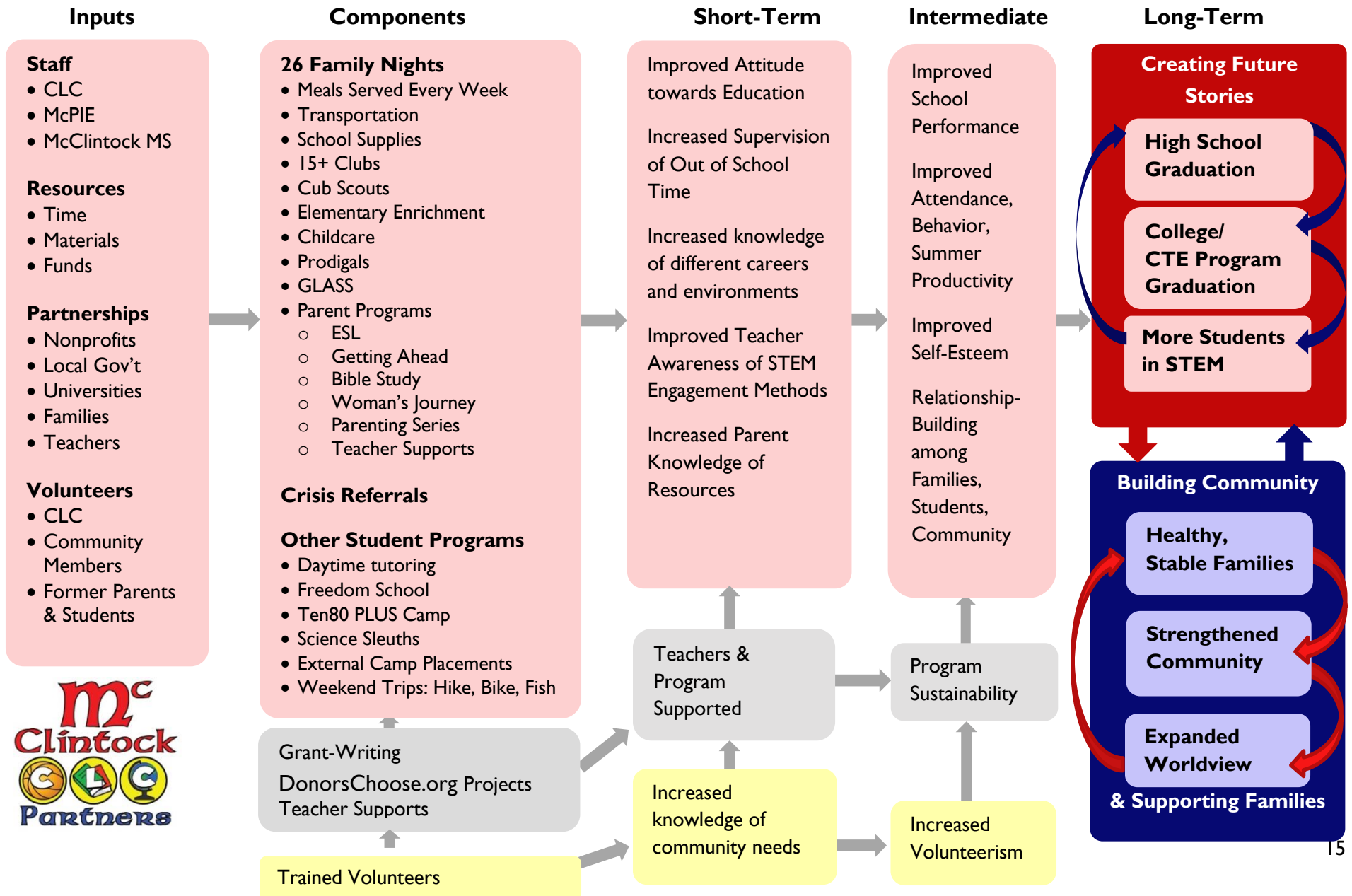
Methodology

This report is the culmination of a year-long mixed-methods study. Formative research and a logic model⁴ guided interviews, surveys, and observations. Data from Charlotte-Mecklenburg Schools (CMS) was acquired for all students who have ever participated in a McPIE program, which allowed for a longitudinal analysis of academic, attendance, and behavioral data. A comparison group allowed for impact consideration and further context. **For full details of the methodology used in this study, please see the Methodology addendum report.**

⁴ The logic model was developed in a session with the McPIE board and can be found on the next page.

McPIE Logic Model

To ensure that McClintock students have access to the support, opportunities, and resources which will provide them with the best education available anywhere and to ensure their future, life-long success in the 21st century world



Results

Part I: Creating Future Stories

McClintock Partners In Education seeks to create future stories for the students they serve. Though future stories are unique to each student, we know that student success starts with consistent school attendance, positive behavior, and excellent academic performance. **This section primarily seeks to describe the long-term schooling outcomes of students as they journey through middle and high school.**

McPIE Served Students

Before delving into the outcomes, it is important to better understand students served by McPIE and how that compares to the whole McClintock student population as well as the district and the state. To do this we will focus on students served during the 2013-2014 school year, which closely mirrors the overall population of McPIE since 2007.

In the 2013-2014 school year, the African American population at McClintock was higher than both the district and the state (Figure 1). Further, McPIE served a slightly higher percentage of African American students and lower percentage of Hispanic students than were in the McClintock student population.

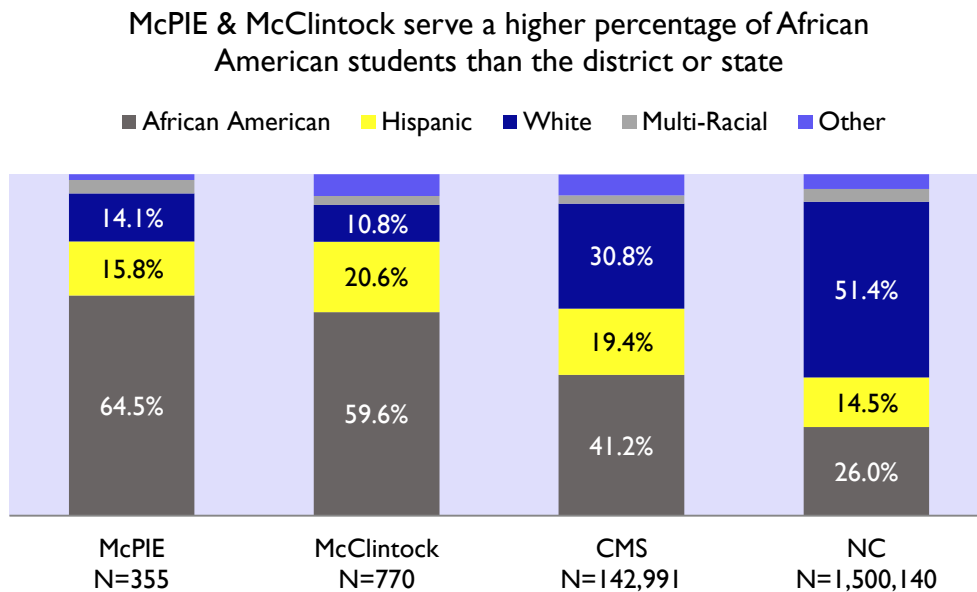


FIGURE 1: 2013-2014 RACIAL/ETHNIC MAKE-UP

We will refer back to Figure 1 throughout the data analysis as outcomes, even at the same school, tend to differ across racial and ethnic lines. Outcomes also tend to differ across socio-economic lines. Figure 2 shows the percentage of students who are economically disadvantaged at McClintock, in CMS, and in North Carolina.⁵ McClintock Middle School has significantly more students who are considered economically disadvantaged than either the district or the state.

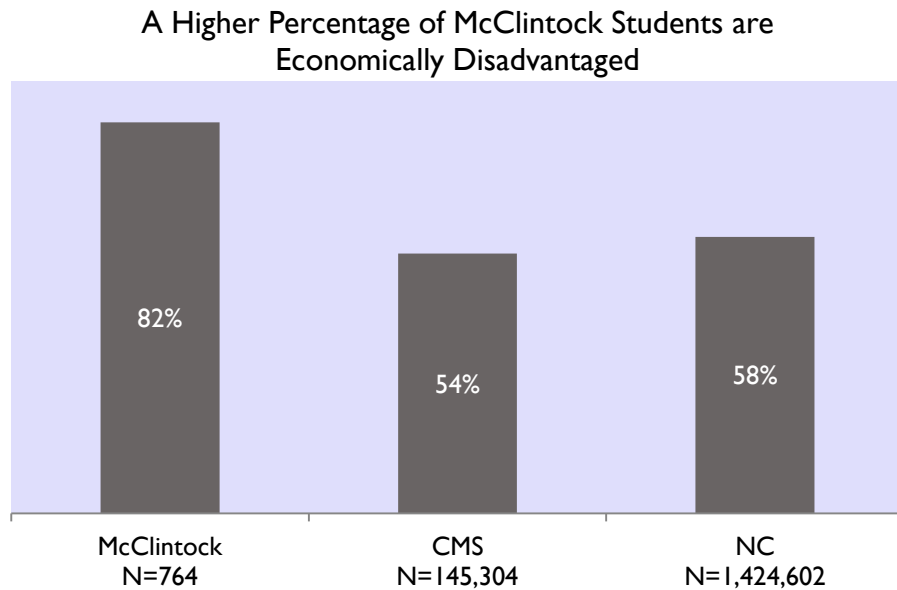


FIGURE 2: 2013-2014 PERCENT ECONOMICALLY DISADVANTAGED

Racial/ethnic and socio-economic characteristics are important when considering programmatic outcomes. Other student characteristics can also impact school performance. The McPIE program list provided for matching the Charlotte-Mecklenburg School data was also matched to the Department of Social Services' (DSS) Youth and Family Services data. This match found that out of 1008 students, 166 (16.5%) had a reported case of abuse, neglect, or abuse and neglect sometime since the year 2000. Of the 166 cases, 10 reports were substantiated or services were designated as needed for the family. Another 65 cases (39.2% of those investigated) had services recommended, which occurs when the safety of the child is not an issue, but non-safety related services are recommended. Research has found that students who have reports of maltreatment, even when not substantiated, have poorer school outcomes than the general student population.⁶

Beyond the impact DSS involvement has on students, these data also indicate that McPIE is serving the students who are most in need. The racial/ethnic, socio-economic, and DSS data do not, however, solely define McPIE served students.

⁵ Percent economically disadvantaged is determined by how many students receive free and reduced lunch. This information is not available at the student-level.

⁶ Leiter, J., Myers, K.A., & Zingraff, M.T. (1994). Substantiated and unsubstantiated cases of child maltreatment: Do their consequences differ? *Social Work Research*, 18(2), 67-82.

McPIE served students are LEARNING⁷...

- Both Hard Skills:
“I learned how to build a computer.” “Guitar chords, reading music better.” “How to camp outside.” “Some simple engineering and about gravity.” “Programming the robot for Robotics.”
- And, Soft Skills:
“I learned that teamwork and sportsmanship is the key to success.” “Fall down 4 times get back up 5 times.” “How to work together.” “How to respect people.”

McPIE served students are DEDICATED...

- **Robotics students** meet after-school seven hours per week all school year. When they are preparing for competition their time is upped from two to four days per week.
- Over one hundred students have earned a computer over 6 years by attending **Computer Building club** each week.
- As of summer 2014, over 220 students have participated in **at least five McPIE sponsored activities** (semester of Family Night, summer camp etc.).

Finally, McPIE served students are EXPERIENCING NEW THINGS...

- In the 2014-2015 school year, groups of students experienced **fishing trips, bike trips, nature trips, and robotics competitions** away from McClintock Middle.
- Since 2009, dozens of students have gone to **overnight camps and day camps** thanks to McPIE sponsorship.
- Hundreds more have gone to **Freedom School literacy camps** at Christ Lutheran Church and **science camps** at McClintock, presumably avoiding summer learning loss.



⁷ Responses from Family Night middle school club surveys.

School Achievement Findings

Middle School and, as appropriate, high school data of students who participated in McPIE programming since 2007, were analyzed. Variables of interest were attendance, out-of-school suspensions, and academic performance. As described in the methodology addendum, two comparison points were created: one with McClintock students who were not involved in McPIE and one with Eastway Middle School students. The data from the comparison points and publicly-available aggregate data on the school, district, and state-levels are included where available to provide context.

Attendance

Attendance is a critically important factor in long-term educational outcomes. Even though it is not an intentional goal of many after-school programs, research shows that afterschool programs can influence school-day attendance.⁸ Attendance, or lack thereof, has been found to impact standardized test scores, graduation rates, and dropout rates. Academic achievement, especially in math, depends on being present in school.⁹

In the 2014 survey, 38.9% of parents (n=33) felt McPIE improved their student's attendance, while most were neutral (47%).

Interviewees greatly felt McPIE did improve attendance both on the day of Family Nights (“they know if they are not in school that day they can’t come that night”¹⁰) and generally (“building those relationships and getting students engaged makes an impact with school attendance”). Some of this impact is also thanks to Freedom School, “If they miss more than three days, their slot is lost and then we put someone else in their place... students’ mentalities change. It’s like now where that student barely came to school, now even the parent is on them, like ‘okay, you have got to be at school, you got to be at school because that’s how it was the whole summer.’” The students also enjoy coming, “The kids that come to Tuesday Family Nights are here at school on a daily basis. They like school, they like coming, they want to be here. If we could have Family Night 3 or 4 times a week they’d be here.”

⁸ Attendance Works. Making the Case: How Good Afterschool Programs Improve School-day Attendance. Source: <http://www.attendanceworks.org/wordpress/wp-content/uploads/2011/08/Making-the-Case-for-AS-2-3-11.pdf>

⁹ Balfanz & Byrnes. (2012). The Importance of Being in School: A Report on Absenteeism in the Nation’s Public Schools. Johns Hopkins University: Everyone Graduates Center.

¹⁰ Anecdotally, numerous interviewees felt that Tuesdays probably had the highest average daily attendance. The necessary data is not available to researchers to investigate this perception.

There are two main indicators to consider for attendance: average days absent and percent of students experiencing chronic absenteeism.¹¹

Average Absences

Though each school year varied (see raw data: Appendix B, Table 3), **McPIE served students averaged less days absent in middle school than the McClintock and Eastway comparison groups across the studied school years of 2008 – 2009 through 2013 – 2014 (Figure 3).**¹²

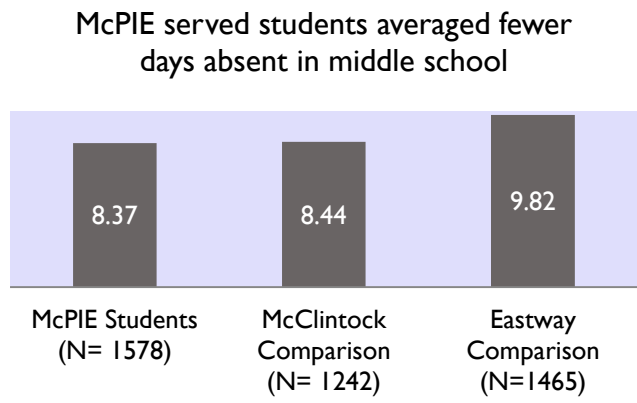


FIGURE 3: AVERAGE DAYS ABSENT (2008 – 2014)

The average days absent for McPIE students has decreased each year since 2011-2012. In the 2013-2014 school year, the most recent year with publically available data and their lowest average, McPIE served students averaged fewer days absent than McClintock, CMS middle schools, and the state. As illustrated by the yellow line in Figure 4, McPIE served students averaged fewer absences than all comparisons except CMS.

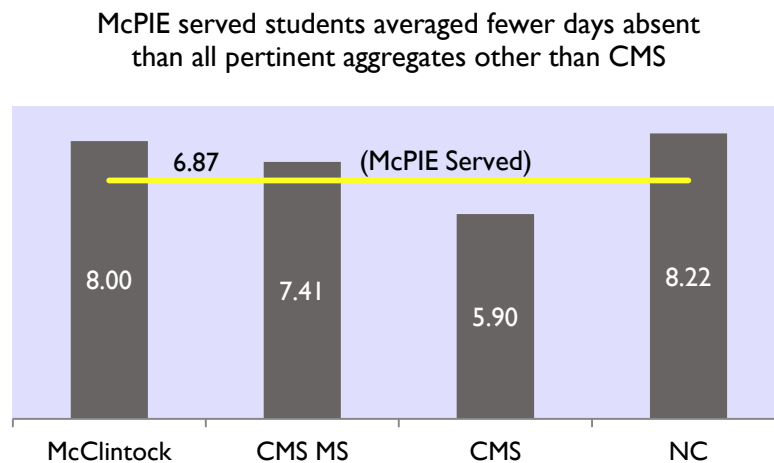


FIGURE 4: AVERAGE DAYS ABSENT COMPARISON (2013-2014)

¹¹ Chronic absenteeism is defined as missing ten percent or more of school days. Data is incomplete for days in membership, therefore anyone who was absent 18 or more days were considered chronically absent. This number may be underreported because students may have not been enrolled the entire school year so their threshold for chronic absenteeism may be lower. For example for a student enrolled 130 days, 13 days is considered chronically absent.

¹² N-values exceed number of students because most students have records for multiple grade levels.

CMS likely had fewer average days absent for two reasons:

1. Students tend to be absent more in middle school than elementary school and upper high school grades, which is a higher proportion of district students.
2. McClintock is 82% economically disadvantaged compared to 54% for CMS. Low-income students tend to experience higher rates of absenteeism for numerous reasons, including: housing instability, transportation challenges, poor health, and the need to stay home to care for younger siblings.

Chronic Absenteeism

Chronic absenteeism is especially detrimental to the success of McClintock students as it has been found to increase the achievement gaps seen at all school levels.¹³

Similar to average absence, the number of students chronically absent each year has varied since 2008 (see raw data: Appendix B, Table 4). **Overall, a smaller percentage of McPIE served students were chronically absent than the McClintock and Eastway comparison groups (Figure 5).**

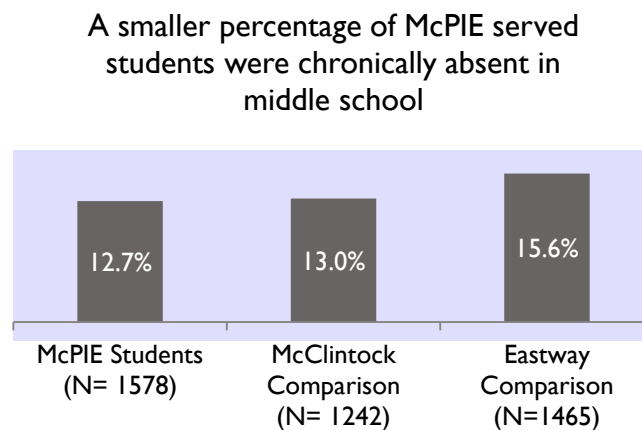


FIGURE 5: PERCENT EXPERIENCING CHRONIC ABSENCE (2008-2014)

Since middle schoolers tend to be absent more than elementary school students, it would be ideal to compare chronic absenteeism rates to all middle schools across CMS and NC. However, data is only available on the district-level for chronic absenteeism. **In the 2013-2014 school year, CMS reported an 11.6% chronic absenteeism rate.¹⁴ In the same year, McPIE served students had an 8.8% chronic absenteeism rate, almost 3 percentage points lower.**

¹³ Balfanz, Byrnes. (2012). The Importance of Being in School: A Report on Absenteeism in the Nation's Public Schools. Johns Hopkins University: Everyone Graduates Center.

¹⁴ Source: http://www.cms.k12.nc.us/mediaroom/strategicplan2018/Documents/SP2018%20SY%2013-14%20Results_FINAL.pdf

Change Over Time

The change in chronic absenteeism from the 2011-2012 school year to the 2012-2013 school year is worth highlighting. In 2011-2012, 19.5% of McPIE served students were chronically absent compared to 18.9% of the McClintock comparison group, a negligible difference. The next year, 2012-2013, only 8.8% of McPIE served students were chronically absent, a drop of nearly 11 percentage points. The same year, the McClintock comparison group dropped less than 2 percentage points to 17.4% (Figure 6).

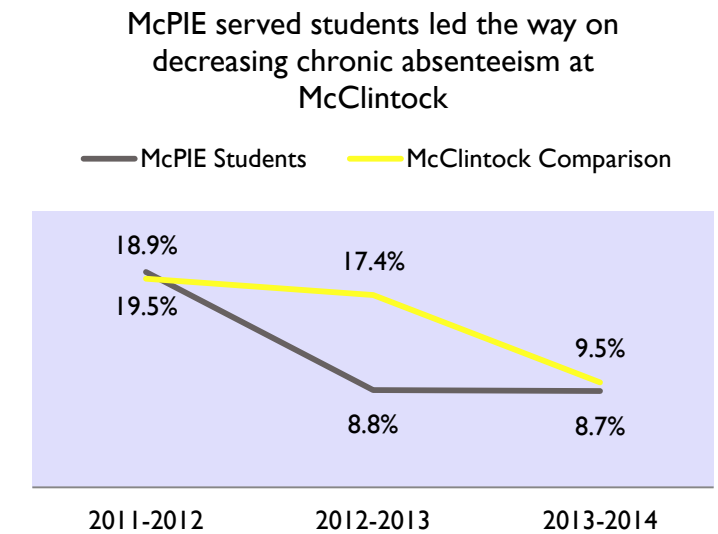


FIGURE 6: CHANGE IN CHRONIC ABSENCES

Consequently, McPIE served students had a significantly ($p < .05$) smaller percentage of students chronically absent in 2012-2013 than the McClintock comparison group.

McPIE served students also had a statistically significant ($p < .05$) decrease in chronic absenteeism. Possible explanations for this stark improvement are the Truancy Court program (described in the program highlight) and increase in student engagement outside of their classes through McPIE.

PROGRAM HIGHLIGHT: Truancy Court

Due to the high number of chronically absent students, a Truancy Court program was initiated at McClintock in 2008. Truancy Court programs seek to eliminate barriers to attendance in a nurturing manner through a ten-week intensive intervention program for students and parents. A district or superior court judge works with the school social worker and other support staff as the truancy team. McPIE advocated for the program and funded all associated costs. The program was discontinued in December 2013 due to decreased need, which is reflected in Figure 6 above.

The difference between the McPIE served students and McClintock comparison group nearly evened out the next year, most likely due to the following:

1. Influence of McPIE served students improving their attendance
2. Influence of Principal Williams after a full year
3. Improving school culture
4. The opening of the new school building for 2013

These factors will be further explored in the Building Community section of this report.

Though not a statistically significant difference, a very similar pattern was seen for average absences. McPIE served students decreased their average absences by 2.29 days between 2011-2012 and 2012-2013, while the comparison group improved 1.29 days. The averages again came closer to evening out in 2013-2014 (Figure 7), likely due to the decrease in chronic absenteeism across all students.

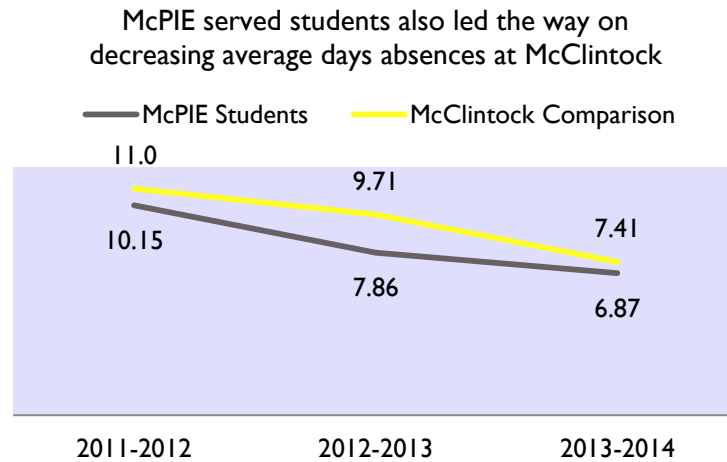


FIGURE 7: CHANGE IN AVERAGE DAYS ABSENT

While the difference between 2.29 days and 1.29 days may seem small, evidence shows that each day in school has an impact on outcomes.¹⁵ Ultimately, the decrease in absences should lead to improved academic success for all students.

¹⁵ Fitzpatrick, M., Grissmer, D., & Hastedt, S. (2011). What a difference a day makes: Estimating daily learning gains during kindergarten and first grade using a natural experiment. *Economics of Education Review* 30, 269-279.

Attendance in High School

Research has shown that 9th grade attendance is a critical early warning sign of dropout. In fact, missing 20% of school can better predict dropout than eighth grade test scores. While 9th grade tends to have the highest rate of absenteeism,¹⁶ McPIE served students averaged more days absent and more students experiencing chronic absenteeism than the comparison groups (Figure 8 and 9; see raw data: Appendix B, Tables 5 and 6).

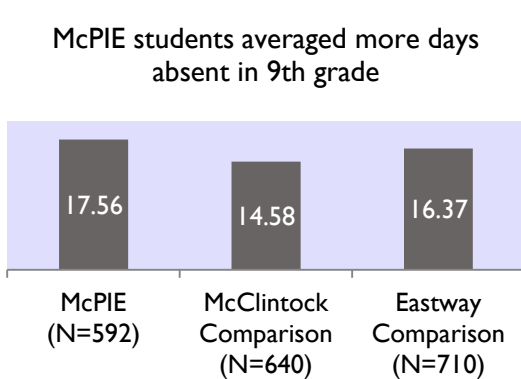


FIGURE 8: AVERAGE DAYS ABSENT IN 9TH GRADE (2009 - 2014)

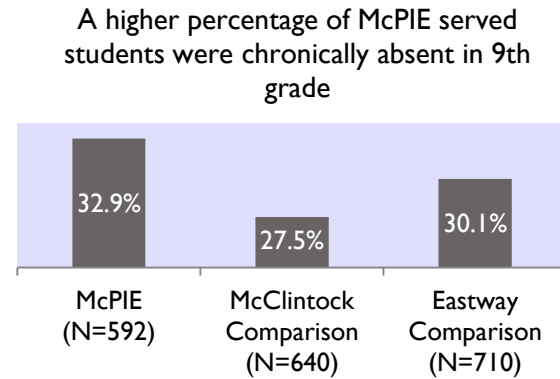


FIGURE 9: PERCENT CHRONICALLY ABSENT IN 9TH GRADE (2009 - 2014)

PROGRAM HIGHLIGHT: Transportation

Increased participation in extra-curricular activities has been shown to lead to improved school attendance. Transportation is a major barrier to participation in extra-curricular activities and for parent engagement in low-income communities. McPIE provides transportation to and from each of the summer camps, Family Nights, and for weekend trips. On Family Nights, transportation is provided for all family members who request it. In the 2014-2015 school year, about 100 students and family members are transported home from Family Night each week. Family Night would not have been feasible for these families without transportation.

¹⁶ Attendance Works. What is Chronic Absence? Source: <http://www.attendanceworks.org/wordpress/wp-content/uploads/2011/06/What-is-Chronic-Absence.pdf>

The McPIE served students who entered 9th grade in 2013-2014 averaged 16.48 days absent. Data for each grade level is not available on the school, district, or state level. So while 9th graders tend to be absent more than any other grade, the yellow line in Figure 10 shows just how many more days McPIE served students were absent in 9th grade compared to the high school average of East Mecklenburg HS (where the majority of McClintock students attend), CMS high schools, CMS, and the state of NC.

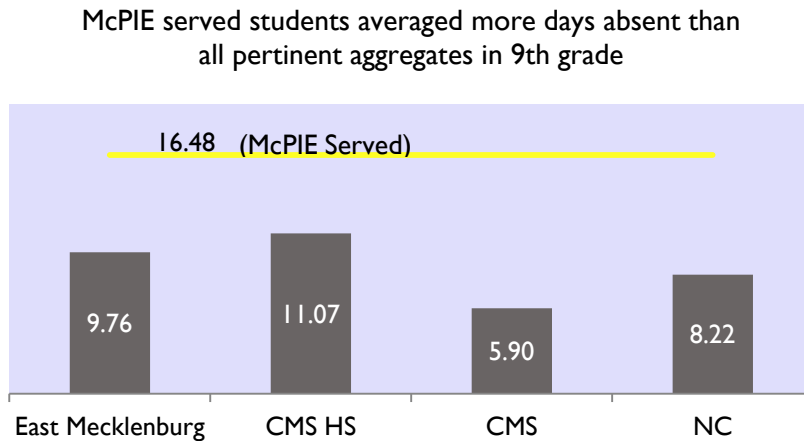


FIGURE 10: AVERAGE DAYS ABSENT 9TH GRADE COMPARISON (2013-2014)

McPIE served students averaged over five more days absent a year than other high school students and almost seven more than East Mecklenburg High School, where most of them attend. Further, the CMS chronic absenteeism rate of 11.6% for 2013-2014 was significantly lower ($p < .05$) than the McPIE served students rate of 30.2% as 9th graders.

Behavior

Suspensions are critically important to long-term educational outcomes. Research has shown that suspensions are associated with negative academic outcomes: the likelihood of a student dropping out increases 78% if he/she has a history of suspension.¹⁷ African American students are more likely to be suspended than white students,¹⁸ an important factor to keep in mind as 65% of McPIE served students in 2013-2014 were African American.

In the 2014 survey, 42.9% of parents thought McPIE improved their child's behavior, with an equal number of parents reporting neutral.

Like attendance, interviewees felt that McPIE contributed to positive student behavior. It took time for this to happen, however. "Our first couple of years we really dealt with kids who were really testing that, but I think because of our consistency the past couple years, it is very minimal in terms of discipline." In past years, some students would temporarily, or in rare cases, permanently lose their Family Night privileges, something that didn't happen at all in Fall 2014.

Interviewees noted that this was due to consistency and relationship-building, both with the students and the parents. "It is much easier to talk to that parent because the parent trusts me. I talk to her every Tuesday night and she knows that we care about her child and it makes it easier to deal with behavior issues." Students also don't want "to disappoint." Mr. Pinson, the Freedom School site coordinator and McClintock Chorus teacher, keeps up with summer students during the school year even if he doesn't teach them. One school leader noted, "They do not want Mr. Pinson to know that they got in trouble. It's really magical to see that."

Similarly, teachers who lead a club at Family Night find dealing with negative behavior in school easier: "You're developing connections with students and once you have those connections you can talk to kids one on one. Like 'alright, let's go out in the hall...you can do better, you have done better.'"

Principal Williams believes McPIE has made an impact on behavior school-wide: "The vibe is just changed...suspensions are down over 60% from first quarter last year (2013) to first quarter this year (2014)."

The CMS data point of interest for behavior is out-of-school suspensions, specifically the average number of out-of-school suspensions and the percent of students experiencing any days of suspension.

¹⁷ Lee, Cornell, Gregory, Fan. (2011). High Suspension Schools and Dropout Rates for Black and White Students. *Education and Treatment of Children*, 34(2).

¹⁸ Ibid.

Average Suspensions

Though each school year varied (see raw data: Appendix B, Table 7), **McPIE served students averaged more days suspended in middle school than the McClintock comparison point and less days than the Eastway comparison points across the studied school years of 2008 – 2009 through 2013 – 2014 (Figure 11).**

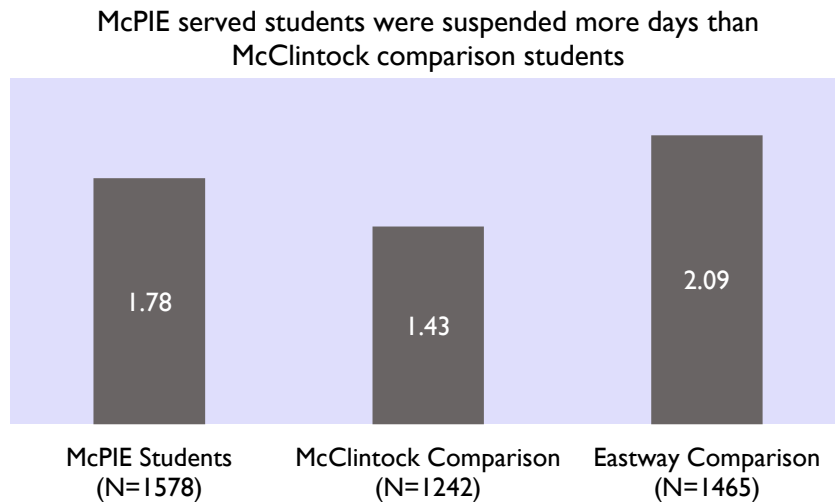


FIGURE 11: AVERAGE DAYS SUSPENDED

Experiencing Suspension

Similar to average days suspended, McPIE served students had more students with at least one suspension than the McClintock comparison, yet less than the Eastway comparison (Figure 12; see raw data in Appendix B, Table 8).

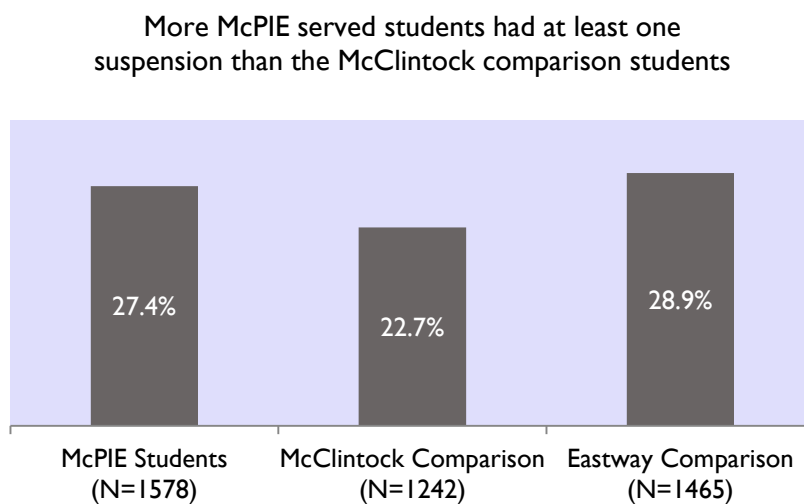


FIGURE 12: PERCENT EXPERIENCING AT LEAST ONE SUSPENSION

Change Over Time

Publically available data on suspensions are not available in a comparable form. Further, each school has different policies and procedures around suspension. Policies range for both what infractions cause suspensions and terms of suspensions. Table I provides the average number of short-term (10 days or less) out-of-school suspensions for all Title I middle schools for the past four years.

TABLE I: SHORT-TERM SUSPENSIONS PER 100 STUDENTS

School	2010-2011	2011-2012	2012-2013	2013-2014
Albemarle Road Middle School	42.6	31.5	50.6	35.8
Coulwood Middle School	54.3	51.6	75.3	34.1
Eastway Middle School	61.2	50.3	36.9	36.7
J.M. Alexander Middle School	36.4	27.8	16.6	15.7
Martin Luther King, Jr. Middle School	66.4	86.8	91.4	73.4
McClintock Middle School	104.9	82.7	68.1	38.1
Northridge Middle School	37.3	36.4	48.3	33.3
Ranson Middle School	77.1	73.4	63.2	48.6
Sedgefield Middle School	78.0	77.7	92.1	99.5
Whitewater Middle School	73.7	65.2	57.5	34.8

McClintock Middle had a higher rate of suspension per 100 students than any of the other listed middle schools in 2010-2011 and the second highest in 2011-2012. In 2012-2013, McClintock dropped to fourth. Table 1 illustrates a district-wide push to reduce the number of suspensions and the average dropped by almost 20 from 63.19 to 44.99 per 100 students across all listed schools in the four year time period. The largest decrease came from McClintock, which dropped by 66.85 suspensions per 100 students.

Accordingly, suspensions (both average and percentage of students experiencing them) for McPIE served students dropped considerably between the 2011-2012 and 2012-2013 school year. The percent experiencing suspension continued to decrease in 2013-2014 (Figure 13), while average suspension only ticked up by 0.06 days on average (a statistically insignificant increase).

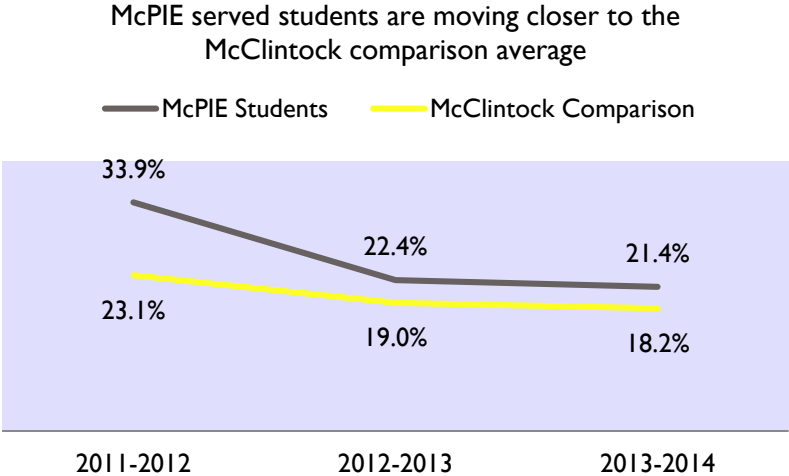


FIGURE 13: CHANGE IN PERCENT EXPERIENCING AT LEAST ONE SUSPENSION

Reasons for the change seen above are likely the same as the changes in attendance: continued relationship building with McPIE, change in principal leadership, improvement in school culture, and the move to the new building.

Suspensions in High School

As in the case of attendance, McPIE served students averaged more suspensions and a greater number of students experiencing at least one suspension in 9th grade than either comparison group (Figures 14 and 15; raw data available in Appendix B, Tables 9 and 10).

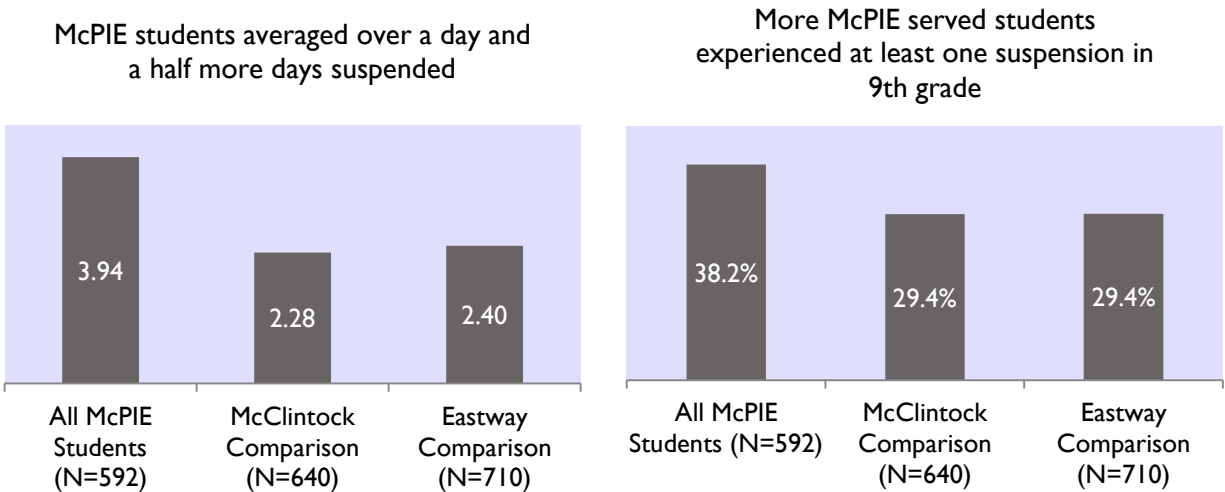


FIGURE 14: AVERAGE DAYS SUSPENDED IN 9TH GRADE (2009-2014)

FIGURE 15: PERCENT EXPERIENCING SUSPENSION IN 9TH GRADE (2009-2014)

These findings indicate that McPIE is likely serving many of the highest need students; however, sustained impact, beyond the middle school years, is needed.

Academic Performance

Participation in extra-curricular activities is positively associated with at-grade level performance.¹⁹ Further, McPIE volunteers not only fill the school on Tuesday nights for Family Night, but tutor some of the most struggling students during the school day as well. 47.2% of parents surveyed (n=33) thought McPIE improved their student's academic performance with most other respondents being neutral (36.1%). 58.3% of students surveyed (n=118) felt that attending Family Night made them a better student.

Interviewees were divided on whether analysis would find an impact on student performance. One noted the tutorials currently occurring during the day might possibly improve student performance, but that there seemed to be less tutors in the past two years than previous years.²⁰ Another noted that when Family Night was only tutoring and homework help it did not work, but that the clubs likely help with performance: "Because my kid is able to use his mind to do something different than what they're doing in regular classroom time, I think it helps with their performance in their regular classes."

School leadership made note that a big correlation has not been seen, yet McPIE "has created conditions necessary for students to come to a safer more academically rigorous environment day in and day out." This change in environment has also contributed to the culture of the school, which was cited as a possible factor in improving attendance and suspension rates and will be explored in the next section, Building Community.

¹⁹ Stearns, E., Glennie, E.J., (2010) Opportunities to participate: Extracurricular activities' distribution across and academic correlates in high schools. *Social Science Research*, 39, 296-309.

²⁰ The number of tutors has decreased in the past four years. In 2011 there were 8 tutors compared to just 3 in 2014. Program data on what students were tutored, in what subject, and for how long are not available, therefore this report is not able to investigate the impact of tutoring.

STEM Pipeline

A long-term goal of McPIE is to have more students in the STEM pipeline for high school, college, and career. McPIE chose this goal because “STEM engagement activities level the playing field for kids from all socio-economic backgrounds.” Further, STEM has the “best possibility of building a trajectory” because there are a “variety of future tracks for kids without college or just one to two years at CPCC [Central Piedmont Community College].” “It gives kids other options to break out of poverty.”

Typically at least half of the Family Night offerings are STEM related. Examples include Robotics, Computer Building, Medical Career Exploration, X-Plane, NASCAR Ten80, Girls Get I.T., and Quadcopters. Two grant-funded summer camps are held at McClintock over the summer: Sixth Grade Science Sleuths and The Summer Science Experience. These camps serve approximately 200 students. Further details on current programming are available in Appendix A.

PROGRAM HIGHLIGHT: Grants

In 2013, McPIE received the Partnership Award in Science, Mathematics, and Technology Education from the North Carolina Science, Mathematics, and Technology Education Center. McPIE has also received grants to support STEM activities such as a \$24,000 Cognizant “Making the Future” grant which funded a Quadcopter track in the Summer Science Experience camp and a Family Night Quadcopter club. A 3-year “Student Science Enrichment Program” grant from the Burroughs Wellcome Fund covers the \$60,000 costs of summer science camps including hiring teachers, providing supplies and transportation, and field trip fees. McPIE is currently in its second round of this grant. A grant from Women’s Impact Fund previously helped to sponsor many of the activities of Family Night. Grants are written by a volunteer, who also assists teachers in writing grants.

59.4% parents (n=33) reported that McPIE programs have led to their student voicing an increased or new interest in STEM. Specific new areas of interest listed included math, robotics, and engineering. Multiple parents that said their student did not voice new or increased interest noted that their students already had those interests.

Teachers are also getting more involved in STEM, by leading a Family Night club or teaching a camp in the summer. Concerning STEM engagement, one teacher noted: “It [McPIE] has shown me ways to bring it [Tech] to our kids. More ways that we can expose our children to STEM opportunities.”

The first entry into the STEM pipeline comes through McPIE activities and clubs as well as through electives at McClintock. A possible next step for students is attending a STEM magnet program for high school. Between the 2008-2009 and 2013-2014 school years, 17 students have gone to Phillip O. Berry Academy of Technology, a STEM magnet high school with three academies: information technology, engineering and medical. Students also attend East Mecklenburg High School's Academy of Engineering; the exact number of whom is not available.

To investigate the impact of McPIE on STEM, multiple analyses were performed. The first looks at the overall impact of all STEM activities: students were assigned a point each time they participated in a STEM-related club or camp. Then the pass rates of four exams were analyzed for each STEM grouping. All McPIE students were compared to those who participated in one STEM activity, two STEM activities, or three or more STEM activities. Next, we look at the Sixth Grade Science Sleuths camp and The Summer Science Experience. We end by focusing in on the 2013-2014 school year. Unfortunately, participation in STEM electives during the school day could not also be included in this analysis. Findings are divided pre- and post-transition to Common Core.

STUDENT HIGHLIGHT

Over the course of the year of data collection, the research team heard many stories of McPIE served students. The quintessential story was of the young man who struggled in math, but so enjoyed learning about aviation in the X-Plane summer program and club that he sought help to improve his math grades. He was accepted into the engineering program at Phillip O. Berry Academy of Technology, where he will graduate this spring. Thanks to the exposure to aviation from the X-Plane club he is continuing to pursue his future story by attending college for Aviation Science in the fall.

I. All STEM Activities

Pre-Common Core (2008-2009 to 2011-2012)

The figures below illustrate the pass rates for the 8th grade math and science exams and the main high school math (Algebra I) and science (Biology) exams before the use of Common Core. Each figure depicts the pass rates for all McPIE served students who ever took the exams, as well as the pass rates for McPIE served students grouped by how many STEM activities they participated in over the course of their middle school career.

The yellow line depicts the pass rate for the McClintock Middle comparison point and the blue line depicts the pass rate for the Eastway Middle comparison point. The raw data with sample sizes can be found in Appendix B, Table 11.

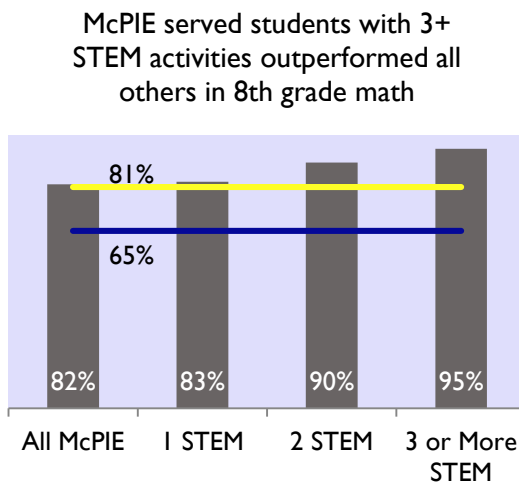


FIGURE 16: 8TH GRADE MATH

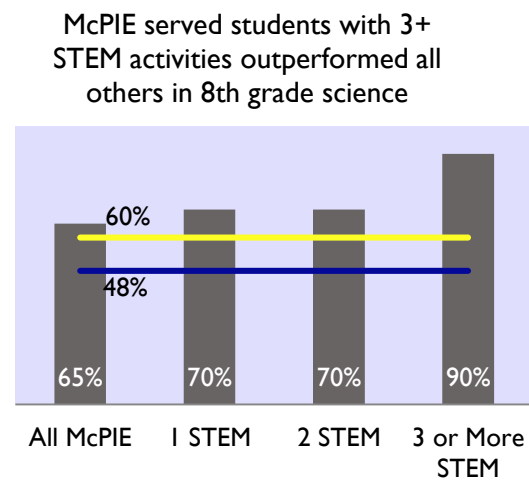


FIGURE 17: 8TH GRADE SCIENCE

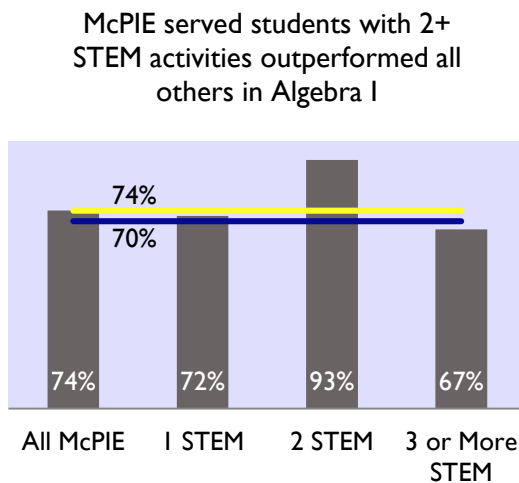


FIGURE 18: ALGEBRA

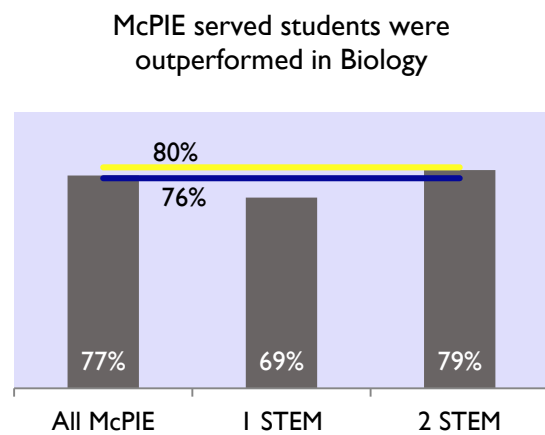


FIGURE 19: BIOLOGY

With just two exceptions, the groups of McPIE students who had participated in more STEM activities had the highest percentage of students pass each exam than those who participated less or did not participate. The largest exception, Algebra I for students in the 3 or more group, is likely due to that group being the smallest. Just 12 students who participated in 3 or more STEM activities took the Algebra I exam before the switch to Common Core.

The same pattern held true after the initiation of Common Core with no exceptions.

Common Core (2012-2013 to 2013-2014)

The more STEM activities, the higher the pass rate in 8th grade math

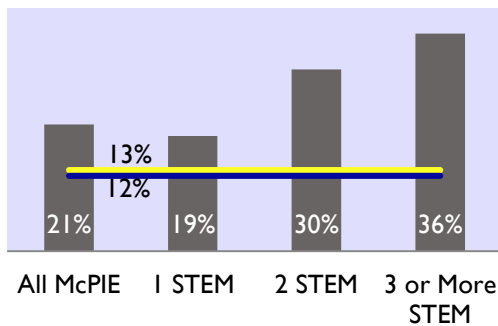


FIGURE 20: COMMON CORE 8TH GRADE MATH

The more STEM activities, the higher the pass rate in 8th grade science

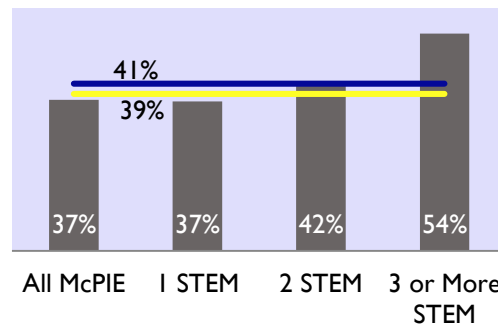


FIGURE 21: COMMON CORE 8TH GRADE SCIENCE

The more STEM activities, the higher the pass rate on Math I

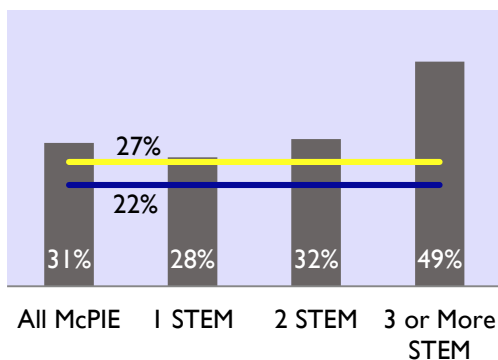


FIGURE 22: COMMON CORE MATH I

The more STEM activities, the higher the pass rate in Biology

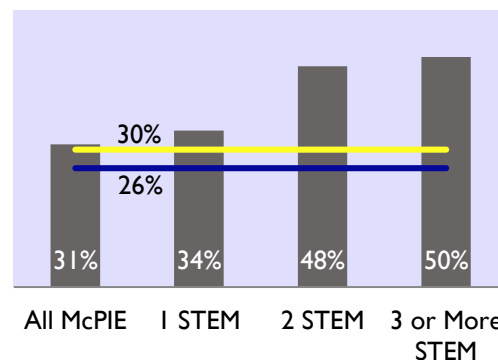


FIGURE 23: COMMON CORE BIOLOGY

The group of McPIE served students who participated in 3 or more STEM activities had a higher percentage of students pass their Common Core math and science exams in middle and high school than all other analyzed groups.

The findings are statistically significant for both the middle school and high school Common Core math exams: students who participated in 3 or more STEM activities had a statistically significant higher proportion of students pass their exams ($p < .05$). Even though all findings were not statistically significant, the overall findings are evidence that the more STEM activities a student participates in, the more successful they will be in demonstrating mastery on state exams.

It is necessary to recognize, however, that students self-select into clubs. Commonly, those with an aptitude for math and science are more likely to engage in STEM activities. An analysis of fifth grade math scores found that students who participated in one or two STEM activities had only slightly different pass rates (McPIE: 68.3%, 1 STEM: 64.5%, 2 STEM: 70.7%) but 82% of students who went on to participate in 3 or more STEM activities passed their 5th grade math exam. Similarly with science, 53% of all future McPIE students passed their 5th grade math exam compared to 50% of 1 STEM activity students, 58.8% of 2 STEM activity students, and 73% of 3 or more STEM activity students.

Even with self-selection, pass rates in 8th grade were higher in all categories than 5th grade. Therefore, the STEM activities likely contributed to more students passing their exams across the board.

CLUB HIGHLIGHT

In 2009, two McClintock teachers and several retired engineers who were volunteering at Family Nights approached McPIE about starting a Robotics Club that fall. That summer, a McPIE donor underwrote the cost for the two teachers to attend Carnegie Mellon's Robotics Academy. McClintock's Robotics program started that fall. In their second year, the Robotics team advanced to the First Lego League (FLL) State Tournament where they won the research category with Robark, the robotic "seeing eye" dog. One of the teachers began teaching Robotics as an elective, becoming a full time Robotics teacher a year later. When he left to teach Robotics at a private school the McPIE donor stepped up once again and underwrote the cost for the new Robotics teacher to go to Carnegie Mellon. With this new teacher in the fall of 2014, McPIE helped to sponsor 3 FLL teams as part of the Family Night Robotics Club. All 3 teams advanced to the state tournament where one won the research category with a robotic bicycle training wheel that would lift up and go back down based on the speed and stability of the bicycle.

II. A Closer Look at Sixth Grade Science Sleuths

Sixth Grade Science Sleuths (SGSS) enrolls rising sixth grade students from the four McClintock feeder elementary schools: Greenway Park, Rama Road, Idlewild and Lansdowne. With the opening of the STEAM magnet program, recruitment was expanded to any rising 6th grade student who would be attending McClintock in the fall. The program is designed to generate interest and enthusiasm in science by rotating students through five different modules. It was started in summer of 2011 and serves approximately 100 students each summer (for more information see Appendix A).

Annual pre-post surveys have garnered strong results:²¹

- Students self-assessed their understanding of science and attitude toward learning science:
 - 93.3% of students (n=90) reported understanding science better.
 - Students had a statistically significant increase in attitude to scientific inquiry.
- Only 1.1% of students (n=90) reported being less interested in learning science.
- Twenty-three percent of students (n=90) indicated a significant increase in career interest in science.
- Students were also asked to draw a picture of a scientist on both their pre and post-surveys. Many students went from drawing a famous scientist or someone unlike them to a picture that more closely resembled themselves. Figure 24 below shows the drawings of one student who went from drawing Albert Einstein to herself.



**FIGURE 24:
SGSS
PARTICIPANT'S
PRE, POST
DRAWING OF
"SCIENTIST"**

One of McPIE's short-term goals is to improve teacher awareness of STEM engagement methods. Several McClintock instructors who helped lead SGSS reported that they would use more cross-curricular and hands-on learning that involve science and math in their classrooms. Even the Language Arts teacher was excited to integrate STEM: "I learned exciting ways to integrate science in our literacy program! I also have a better plan of how to incorporate nonfiction and informational texts that have a science theme with fictional tests that my students will study!"

In terms of academic data, 6th grade data is available for three groups of SGSS participants. Science exams are only taken in 5th and 8th grade, so we look to see if the students who participate in

²¹ Survey results from 2014. Previous years have had similar results. For example, in 2013 students experienced a significantly significant increase in attitude to scientific inquiry and 89.1% (n=82) reported understanding science better.

SGSS are already high-performing science students in 5th grade, how they perform in math in 6th grade, and for the 2011 cohort, how they perform in math and science in 8th grade. McPIE served students and McClintock averages are used as points of comparison.

2011 Cohort

SGSS gets students on the STEM pipeline before they even enter middle school.

Students who participate in SGSS in 2011 were more engaged in McPIE STEM activities throughout the rest of their time at McClintock. Students who participated in SGSS in 2011 had an average of 2 STEM touch points compared to an average of 1.1 for all McPIE served students that entered McClintock in 2011.

In 2011, McPIE served some of the highest need students: the 2011 cohort of SGSS was a lower-performing group in 5th grade than their McPIE peers and McClintock peers²² in both math and science (Figure 25).

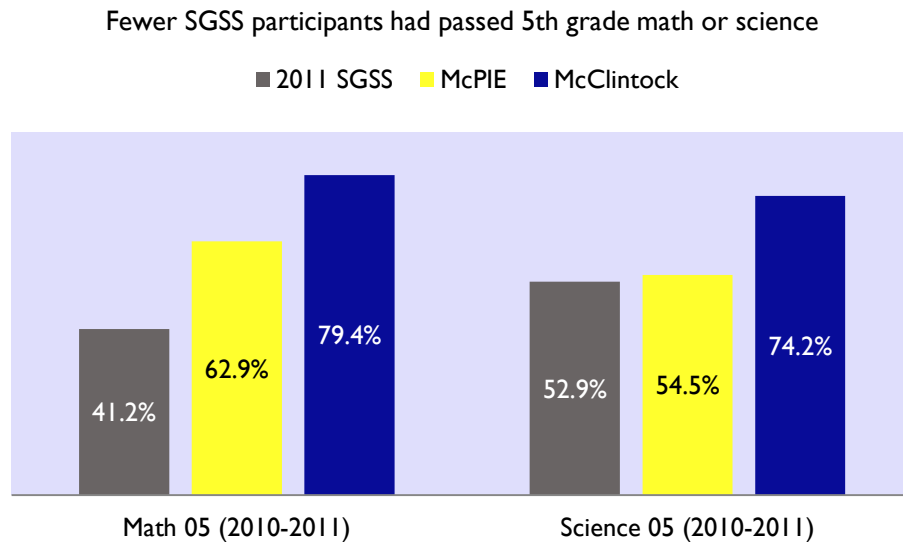


FIGURE 25: 2011 SGSS PARTICIPANTS 5TH GRADE PASS RATES

²² The fifth grade McClintock student data points are calculated from the average of the four main McClintock feeder schools: Rama Road, Lansdowne, Idelwild, and Greenway Park. The number of students who took the test is unavailable so it is an unweighted average. Though not ideal, it provides the necessary context.

As seen in Figure 26, however, while a smaller percentage of McPIE and McClintock students passed their 6th grade math exam, a higher percentage of SGSS participants passed (raw data available in Appendix B, Table 12). **The gap closed from 38.2 percentage points in 2010-2011 to just 1.4 percentage points in 2011-2012 between the SGSS participants and McClintock students.**

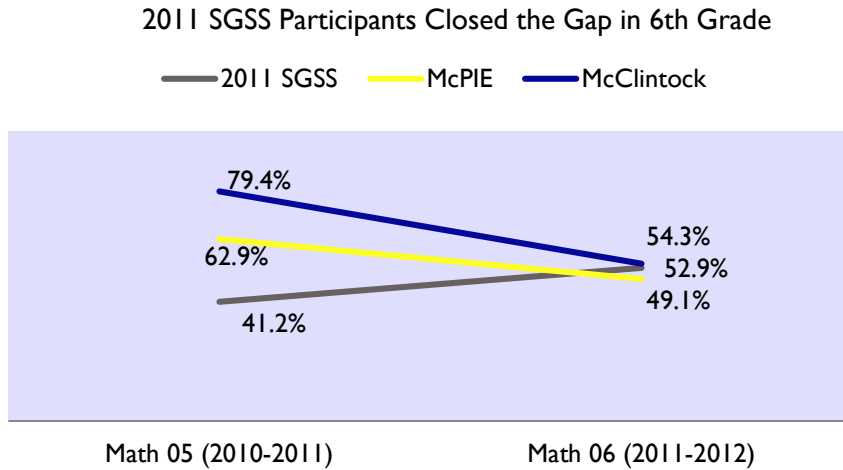


FIGURE 26: 2011 SGSS PARTICIPANTS & COMPARISONS 5TH TO 6TH GRADE MATH

Common Core was initiated before the 2011 SGSS participants took their 8th grade math and science exams. Therefore, we expect a drop in pass rates for all groups. While the 2011 SGSS participants had closed the gap between themselves and their peers in 6th grade (seen above), the gap was widened a bit again in 8th grade math (Figure 27).

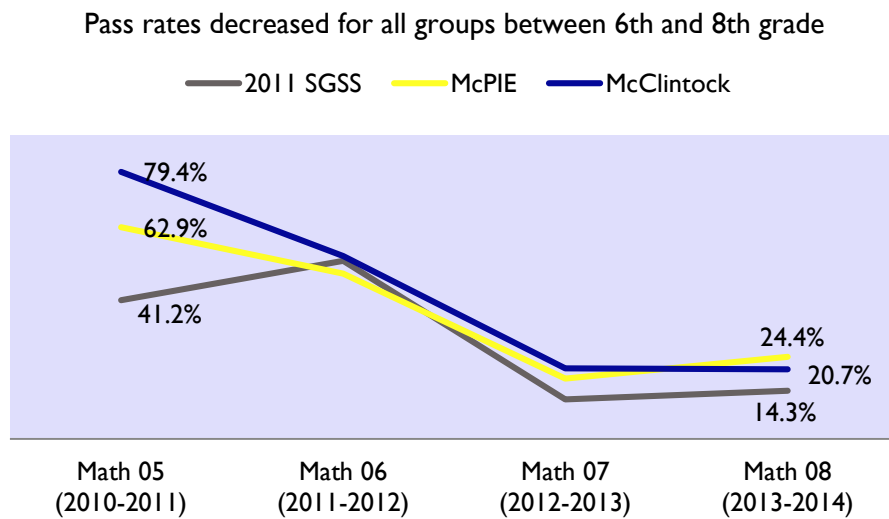


FIGURE 27: 2011 SGSS PARTICIPANTS & COMPARISONS 5TH THROUGH 8TH GRADE MATH

For science, the 2011 SGSS cohort had a pass rate 21.3 percentage points below the McClintock feeder schools in 5th grade, but closed this gap to 8.1 percentage points in 8th grade (Figure 28).

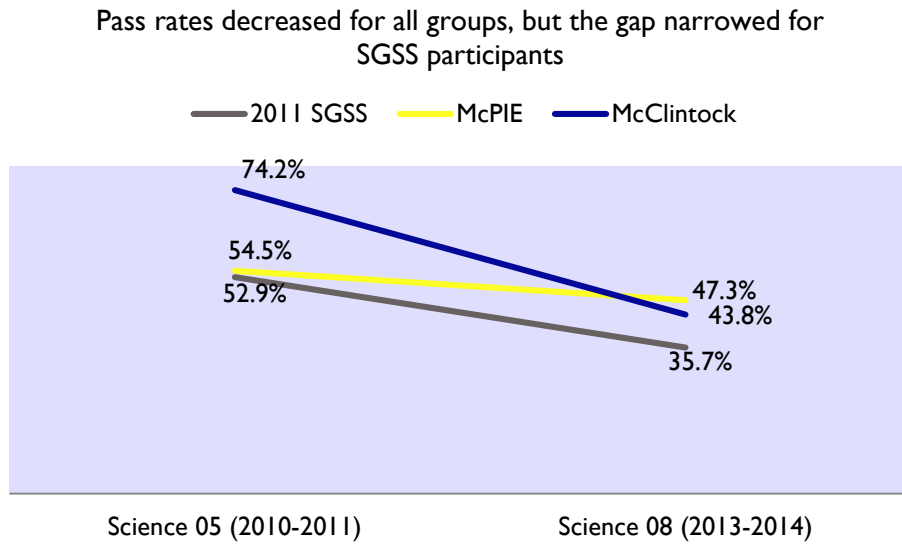


FIGURE 28: 2011 SGSS PARTICIPANTS & COMPARISONS 5TH AND 8TH GRADE SCIENCE

2012 Cohort

The 2012 cohort of SGSS participants differed from 2011. They had a higher percentage passing both math and science in 5th grade (Figure 29).

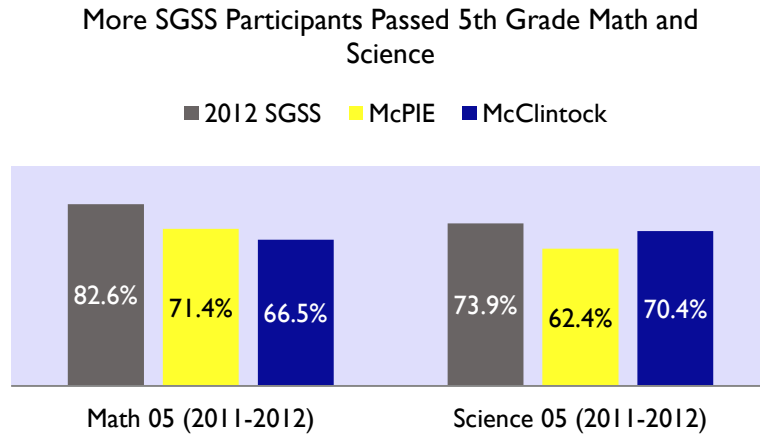


FIGURE 29: 2012 SGSS PARTICIPANTS & COMPARISONS 5TH GRADE PASS RATES

They also performed better in math in 6th grade after the initiation of Common Core. However, the SGSS participants experienced a slightly steeper drop (Figure 30; see Appendix B, Table 13 for raw data).

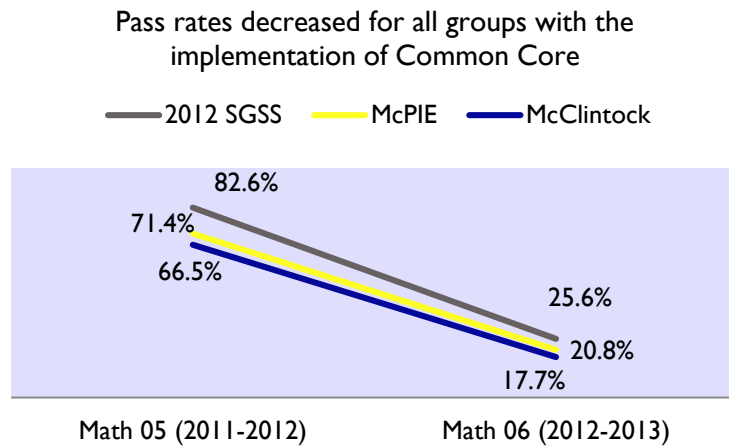


FIGURE 30: 2012 SGSS PARTICIPANTS & COMPARISONS 5TH TO 6TH GRADE MATH

2013 Cohort

The 2013 cohort looked a lot like the 2012 cohort. SGSS participants outperformed their McPIE and McClintock peers in math, though they performed slightly below McClintock peers in science (Figure 31). Again, due to the switch to Common Core the pass rates were much lower across the board.

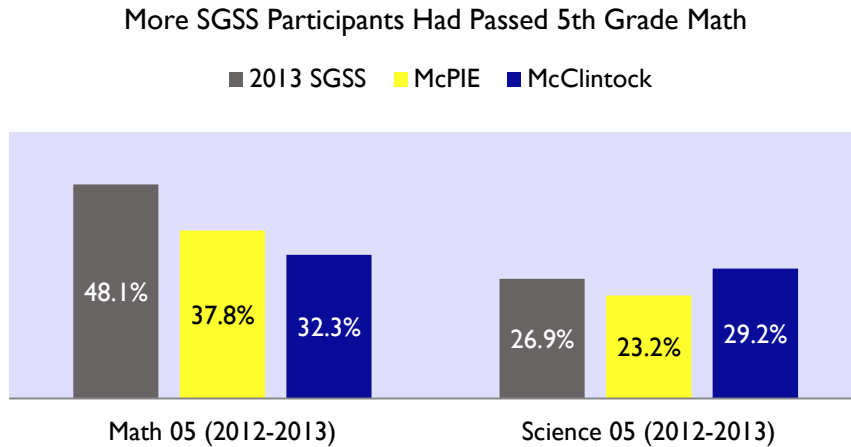


FIGURE 31: 2013 SGSS PARTICIPANTS & COMPARISONS 5TH GRADE PASS RATES

All groups also experienced a decrease in scores between 5th and 6th grade (Figure 32; see raw data in Appendix B, Table 14).

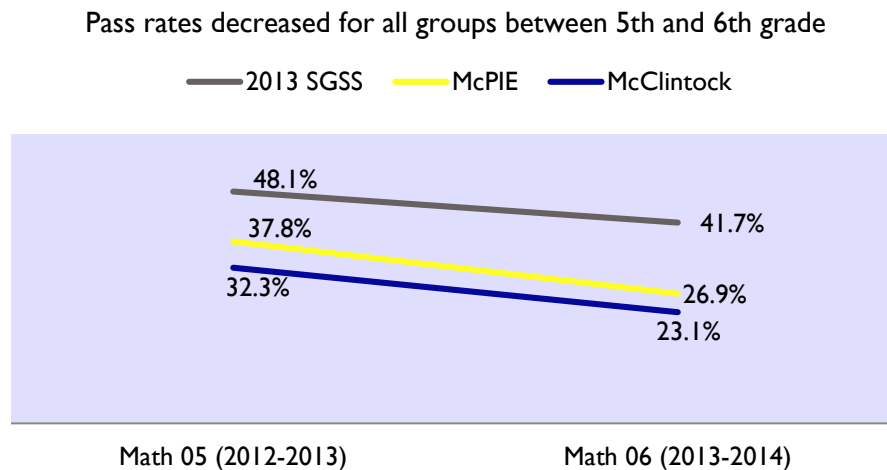


FIGURE 32: 2013 SGSS PARTICIPANTS & COMPARISONS 5TH TO 6TH GRADE MATH

2014 Cohort

The 2014 SGSS cohort with available 5th grade data (n= 20) was very high performing: in 5th grade 85% passed math and 95% passed science compared to district rates of 61.6% in math and 38.2% in science.

III. A Closer Look at The Summer Science Experience

The Summer Science Experience is for rising 7th and 8th grade students and began in 2013. Students can choose from three of five tracks. In 2014 the five tracks included: Ten80 Racing, Fly to Learn, Quadcopter Maker Space, Water Eureka, and Raspberry Pi physical computing (for more information, see Appendix A).

According to survey data, the Summer Science Experience has garnered strong results:²³

- 89.2% of students (n=74) felt the program helped them understand science better.
- Only 4.1% of students (n=74) did not feel that they could use some of the things they learned in science class at school.
- Only 1.3% (n=74) of students reported being less interested in science.

All of the fourteen instructors who participated in summer programming and completed a questionnaire reported that they planned to incorporate more experiential learning in their classrooms as a result of their participation. All fourteen also reported that they would be interested in helping again. Their responses were indicative of a worthwhile experience with one teacher noting: “I loved that not only were my students challenged but I found myself challenged as well.”

Academic data for The Summer Science Experience participants can be found below by each cohort. First, however, is data for the 2011 and 2012 science camps that came before The Summer Science Experience. These were smaller 1-week camps that just did the NASCAR Ten80 curriculum. These camps were actually won by students who attended a NASCAR event. McPIE served students and McClintock students are used as points of comparison.

2011 Cohort

The rising 8th graders who participated (n=9) in the NASCAR Ten 80 camp experienced larger increases in pass rates for math between 7th and 8th grade. A higher percentage of participants also passed the 8th grade science exam than their peers (Figure 33; see Appendix B, Table 15 for raw data).

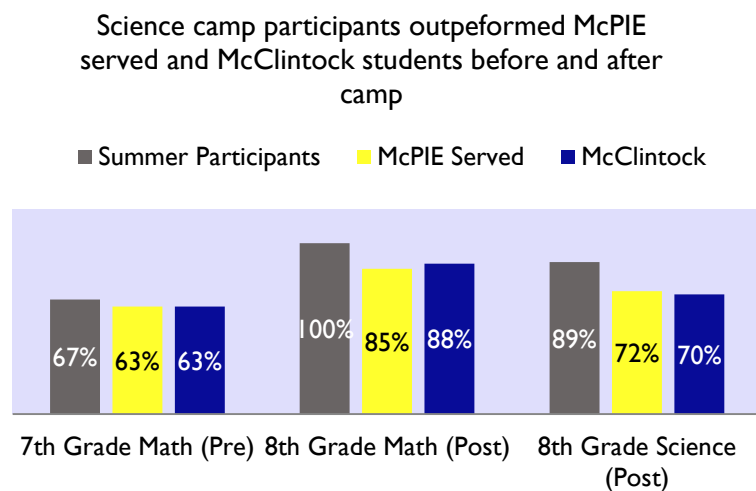


FIGURE 33: 2011 SUMMER SCIENCE EXPERIENCE PARTICIPANTS & COMPARISONS PRE AND POST PASS RATES

²³ Survey results from 2014. Previous years have had similar results. For example, 93.6% (n=31) reported that the program helped them understand science better and only 3.2% did not feel that they learned things they could use in science class at school in 2013.

2012 Cohort

For rising 7th and 8th graders who participated in science camps in 2012 (N=25), math proficiency dropped considerably with the implementation of Common Core. All three analyzed groups decreased significantly in math pass rates, though science camp participants maintained the highest pass rate in all categories (Figure 34; see Appendix B, Table 16 for raw data). **Participants had almost twice the pass rate as the rest of McClintock on the 8th grade science exam, a statistically significant difference ($p < 0.05$).**

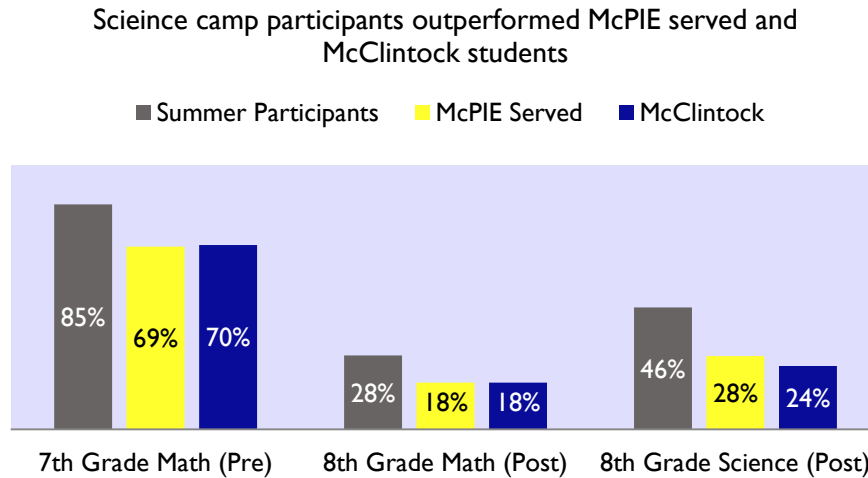


FIGURE 34: 2012 SUMMER SCIENCE EXPERIENCE PARTICIPANTS & COMPARISONS PRE AND POST PASS RATES

2013 Cohort

The 2013 cohort of rising 7th and 8th graders were the first to participate in The Summer Science Experience. More data were available for rising 7th graders (n = 22 compared to n=9 for 8th graders). The Summer Science Experience participants' pass rate increased between their 6th and 7th grade exam, but at a smaller rate than McPIE served and McClintock students (Figure 35; see Appendix B, Table 17 for raw data).

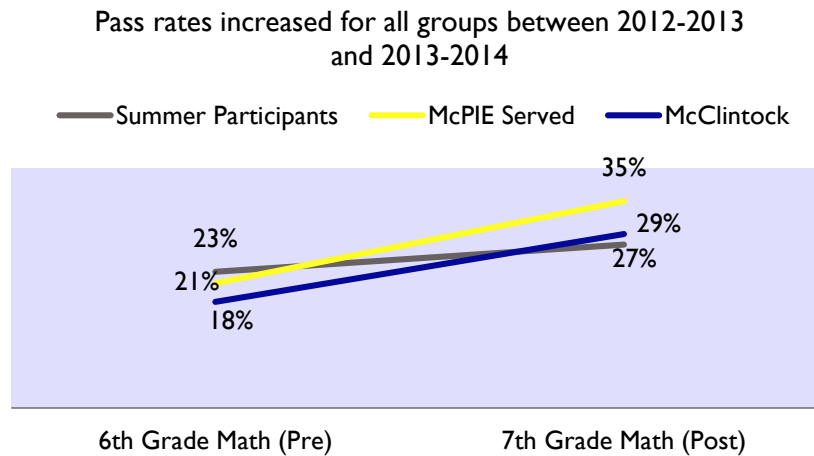


FIGURE 35: 2013 SUMMER SCIENCE EXPERIENCE PARTICIPANTS & COMPARISONS PRE AND POST PASS RATES

2014 Cohort

Data is not yet available post participation, but the rising 7th graders in the 2014 cohort outperformed their McPIE served and McClintock peers prior to attending The Summer Science Experience (Figure 36; see Appendix B, Table 18 for raw data). Seventh graders performed slightly below the rest of McPIE served students and just slightly above the McClintock student body.

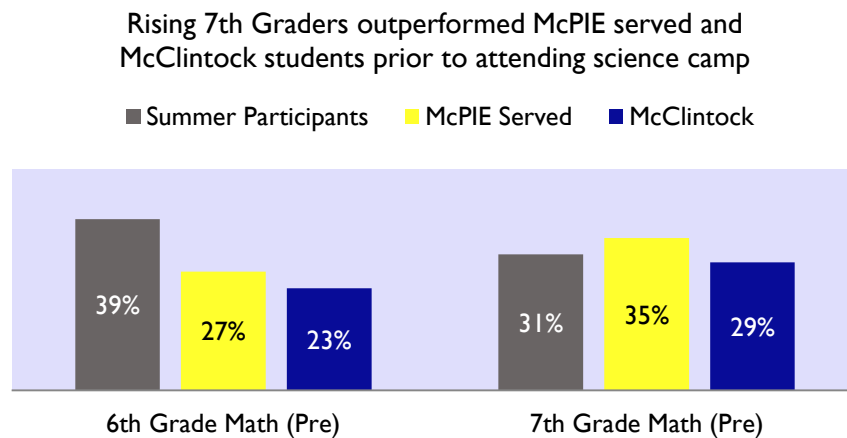


FIGURE 36: 2014 SUMMER SCIENCE EXPERIENCE PARTICIPANTS & COMPARISONS PRE PASS RATES

IV. A Closer Look at 2013-2014

In Figure 1, we saw that the approximate racial/ethnic breakdown for McPIE in 2013-2014 was 65% African American, 16% Hispanic, and 14% white. Generally, McPIE serves about 51% male and 49% female students.

For students who participated in one STEM activity, the breakdown remains fairly reflective of the general McPIE population: 64% African American, 20% Hispanic, 10% white students with 52% females and 48% males.

There is a shift for students who participated in two STEM activities or three or more STEM activities, particularly along gender lines.

2 STEM: 60% African American, 18% Hispanic, 16% White; 60% male, 40% female

3+ STEM: 54% African American, 14% Hispanic, 21% White; 66% male, 34% female

Even with the change in demographics, the students with three or more STEM activities are more likely to be African American and economically disadvantaged than the general CMS population. They are also more likely to be male.

To investigate how STEM involved students were performing compared to the district, four pass rates were considered: CMS overall, CMS male students, CMS black students, and CMS economically disadvantaged (EDS) students.

Figure 37 demonstrates how McPIE students are performing on 8th grade math. Though students who participated in 2 STEM or 3+ STEM activities outperformed black students and EDS students across the district, they still lagged behind the district as a whole considerably.

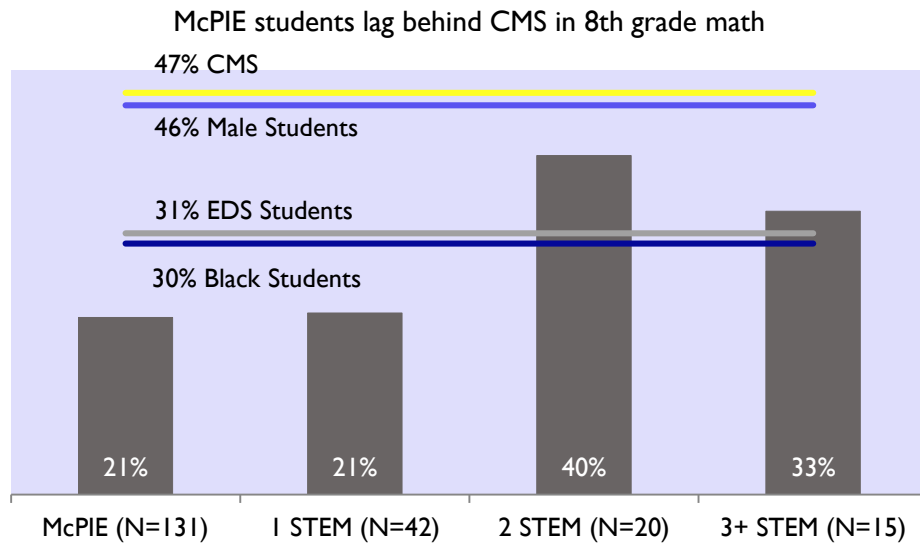


FIGURE 37: COMPARISON OF 8TH GRADE MATH TO CMS

Figure 38 presents the data for 8th grade science. In this case, McPIE served students with all levels of STEM participation fell short compared to all four CMS groups.

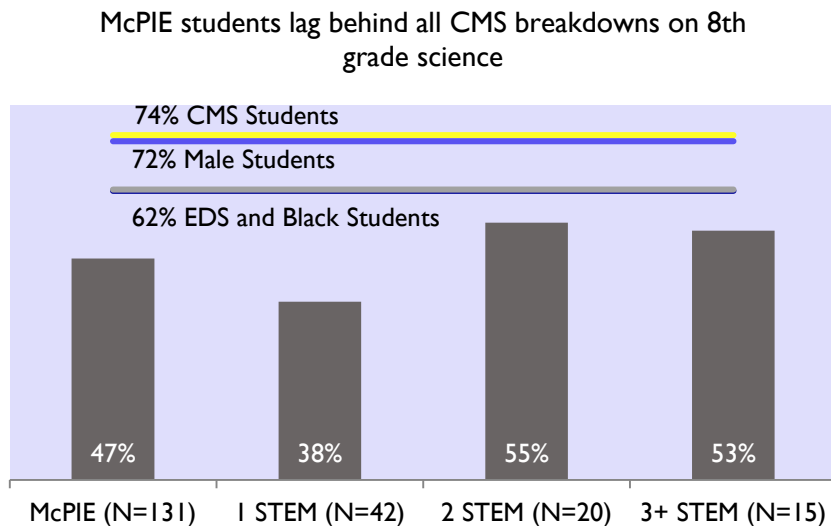


FIGURE 38: COMPARISON OF 8TH GRADE SCIENCE TO CMS

Figures 37 and 38, in particular, are evidence of the need McClintock has for support such as provided by McPIE. Though McPIE served students lag behind the district, improvements are being made and the gap is narrowing in science (Figure 39 and 40). In the 2012-2013 school year, only 18% of McPIE served students passed the 8th grade math exam (n=147) compared to 21% in 2013-2014 and 27.8% passed the 8th grade science exam (n=144) compared to 47% in 2013-2014.

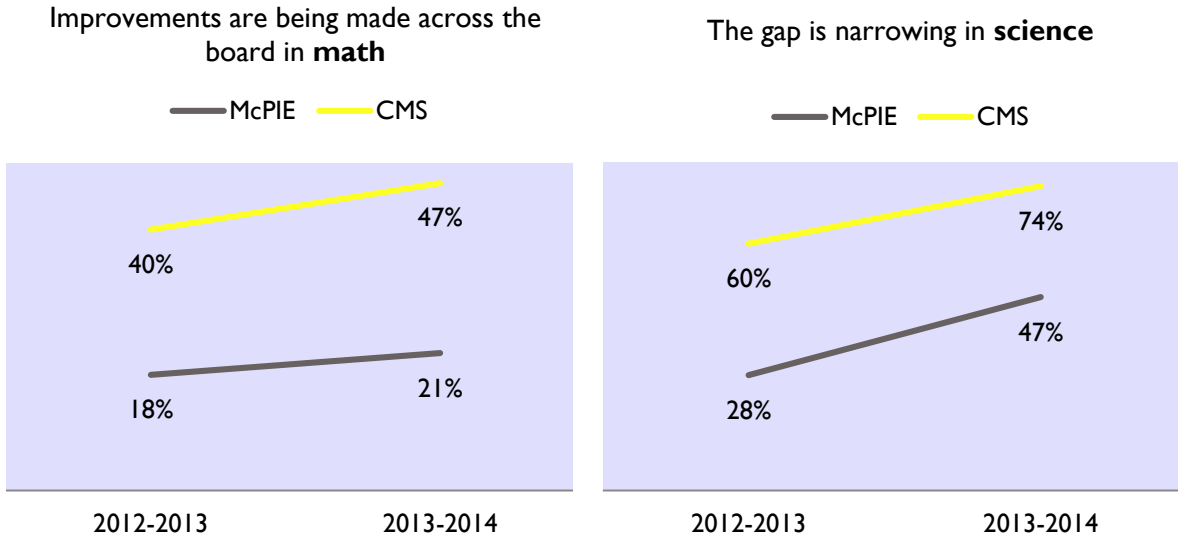


FIGURE 39: 2012-2013 TO 2013-2014 MATH GROWTH

FIGURE 40: 2012-2013 TO 2013-2014 SCIENCE GROWTH

PROGRAM HIGHLIGHT: Middle School Clubs

Since clubs began in 2009, there have been 68 different clubs offered. Club offerings are based on student and volunteer interest. Three clubs have been offered every semester since 2009: Computer Building, Outdoor Leadership and Robotics. These three are excellent examples of who leads clubs: Computer Building has been led by the same community volunteer, Outdoor Leadership has been led by Mecklenburg County Park & Recreation, and Robotics has been led by a McClintock teacher (formerly the science teacher, but now there is a full-time Robotics teacher). While some clubs only last for a semester, over 60% have been offered multiple semesters.

Students are highly engaged during club time and that translates into high satisfaction. Of the 118 middle school students surveyed:

- 87% wanted to continue with their club the next semester
- 89% would recommend their club to a friend
- 40% wanted to take a different elective because of their club

Parents value the clubs:

- The most common reason parents reported coming to Family Night was for their child to participate in their club.
- Parents noted that the “Quality of Instruction is amazing” and that the leaders of the clubs are “priceless mentors.”
- Parents were enthusiastic about the variety of opportunities. In reference to the community volunteers, they noted that “anyone child can get information from is great.” Further, students need “real-world experience” to help them figure out what they want to do.

Students are supportive of one another:

- In Computer Building club, when a 6th grade girl got her latest added computer component checked, she immediately asked if she could help someone else. An older male student called across the room that he wanted her help.
- When a 6th grade boy accidentally wrote “IDK [I don’t know]” in a warm-up activity, but had meant “IDC [I don’t care],” an 8th grade girl kindly corrected him, while an 8th grade boy added “That’s okay, he’s learning.”

The entire community is supportive of the students:

- The Guitar club ends the semester by performing for family, fellow students, volunteers and staff members.
- Volunteers, parents, and McClintock staff fill the Computer Building room on POST (Power On Self-Test) night each semester. POST night is an exciting event where each student plugs their CPU into a monitor for the first time to see if it works. While often at least one CPU will need a part replaced, the evening is filled with light-hearted cheers each time the monitor blinks on.

Literacy

Though McPIE has a STEAM focus, some programs and clubs address literacy. In particular, Freedom School Summer Camps serve approximately 100 students each summer, including younger siblings of McPIE served students. McPIE targets students who are performing below-grade level in reading for the program. Prior to attending Freedom School, just 38.2% of the rising McClintock middle school students had passed their end of grade reading exam (2009-2010, 2010-2011, and 2011-2012) and 19.2% had passed the Common Core end of course reading exam (2012-2013).

Children's Defense Fund Freedom Schools programs are a national six-week summer literacy program led by college interns. It is administered by Freedom School Partners in Charlotte across 19 sites. A McClintock teacher directs the site at Christ Lutheran Church each summer. Students receive an integrated reading curriculum, reading time, enrichment activities and field trips as well as two meals, a snack, and transportation.

While rates of passing the next year's reading exam did not change considerably for the students taking the NC Standards exam before Common Core, **the group who had a 19.2% pass rate for the Common Core exam in 2012-2013 improved to a 35.7% pass rate in 2013-2014.**



Part II: Building Community

School Community

Building Credibility

Among the glowing remarks made from teachers, parents, and students, it was clear that one of the main reasons McPIE is regarded so highly is because they were still there: “The community at the very beginning was cautious...they have seen so many programs come and go and peter out because they came with good intentions but you know couldn’t make it last.” One volunteer noted that building credibility is particularly difficult in a middle school since students are only there for three years. Further, credibility not only has to be built with the students and parents, but with the teachers as well. Efforts such as starting the school year by giving teachers a box of paper and breakfast or a small gift card have helped build relationships with teachers. Regarding the gift card and note one teacher said, “It’s small but there’s someone out there that understands that you’re in there every day giving it all.”

The credibility has been built and moving forward just needs to be sustained through continuation of the work. As one administrator summed up, “McPIE is absolutely a part of McClintock. It’s synonymous now.”

PROGRAM HIGHLIGHT: Meals

“If we don’t eat, we don’t meet” is not an uncommon mantra when trying to bring people together. Parents say that meals are a major motivating factor to come to Family Nights. For some families it means feeding the whole family of 6. When surveyed, 38% of parents (n=39) and 52% of middle school students (n=118) chose dinner as one of the reasons they come to Family Night.

Cultural Impact

All interviewees felt that McPIE has made a cultural impact on the school. It seems that one way this impact has been made is building community by breaking down barriers. One McClintock staff member said, “McPIE tries, in my mind, to level the field so that there are no cultural barriers. No matter what your social economic background might be, if you need help it’s there...no matter what the children’s status is at home.” Another administrator also noted how McPIE serves all students leading them to come together: “In the beginning it was primarily more of our lower-income families, our more at-risk kids, but it has kind of evolved and what’s happened is we’re getting a wonderful blend of socioeconomic levels...and are all kind of coming together because we have clubs and activities that all students want to participate in.

In addition to being for all students, Family Night gets students excited about something positive: “I love seeing them excited about something that’s positive because often, particularly in middle school, it can tend to be a culture where it’s not cool to be excited about something positive.” And it gets them engaged: “When the kids come on Tuesday nights to a dinner, to some of us who are able to afford a dinner it may not seem that much, but to those who barely are making it, that is a wonderful thing. So it might seem like some of them are just coming for the food, but once they get here and you see the parents...engage in conversation, in intense conversation about something that is going to help them get better, and you see the students...are taking it seriously because they are given the opportunity to do things they wouldn’t have had the opportunity to do otherwise.”

McPIE allows teachers to connect with new students and show their investment: “McPIE helped me reach students that typically weren’t the athletes...being there so much after school, the kids notice that, they know you’re invested...And it allowed me to get to reach a lot more students in the clubs that weren’t in the classes, so it’s teaching all these different students that maybe would have never had the opportunity.”

TEACHER HIGHLIGHT

McPIE also builds community at McClintock by elevating teachers. Teachers have been sponsored to attend professional development opportunities, have been given opportunities to engage in STEM, while making money over the summer through teaching camps, and have been given opportunities to share their passions with students through clubs.

- McPIE has sent three Robotics teachers to a summer training at Carnegie Mellon University. The first was recently recruited by a private school to run their robotics program. Before McPIE, he had been a social studies and science teacher.
- Seventeen teachers will be paid over the summer in 2015 to teach science camps. As seen on page 37 and 43, teachers find these opportunities educational for themselves and, ultimately, influence their classrooms.
- Teachers can lead clubs in subject areas they are passionate about or assist McPIE in other capacities. One young teacher helped with administration then went on to work in extra-curricular programming full-time after moving closer to home.

Though elevating teachers’ interests may lead to some turnover, giving teachers the opportunities to grow and share what they love increases involvement and provides students with more meaningful experiences. It is also likely that the community built and opportunities provided by McPIE decrease turnover due to improved morale.

Larger Community

Research has found that a strong sense of community is associated with “improved wellbeing, increased feelings of safety and security, participation in community affairs and civic responsibility.”²⁴ As previously mentioned, McPIE was instrumental in keeping McClintock open during the 2010-2011 school closures. Once McClintock was safe from closure, McPIE recognized the need for a community center and saw potential in the old McClintock building. Though outside the scope of McPIE, they rallied others who could take the lead on a community center and worked together to try to save a newer part of the old building. Unfortunately, the pieces were not able to come together before the demolition.

Staff and community members recognize the school itself as a kind of community center on Tuesday nights: “McPIE was a bridge and community builder. Trying to build community and using the school as a starting point”. A study on the role of public space and well-being concluded that the benefit of public space is not just the natural or aesthetic criteria. Instead, they found that “quite mundane places attain **symbolic significance** for people through social relations that take place there.”²⁵ McClintock Middle has taken on that symbolic significance. Further, the sense of reliability that is gained from the routine encounters with familiar people and places improves the well-being of the individuals in the community.²⁶

Public-Private Partnership

While numerous churches have engaged in partnerships, McPIE has become the gold-standard. When given the chance to share anything else about the experience with McPIE, more than one individual said that this is the best public-private partnership they had ever seen:

“I had never seen a partner who was so invested in the school and was willing to do so much for the school. We didn’t have to ask, they just did it.” – McClintock Staff

“Like I’ve said before, I think it’s the best public-private partnership I’ve ever seen. I mean the fact that the church adopted the school and not just in a very passive way, a very active way is something that I’m very happy to say I’m involved with.” – Community Volunteer

²⁴ Francis, J., Giles-Corti, B., Wood, L., & Knuiman, M. (2012). Creating sense of community: The role of public space. *Journal of Environmental*, 32, pp. 401-409.

²⁵ Cattell, V., Dines, N., Gesler, W., & Curtis, S. (2008). Mingling, observing, and lingering: Everyday public spaces and their implications for well-being and social relations. *Health & Place*, 14, pp. 544-561.

²⁶ Ibid.

The success that is being realized today is the result of the dedication of the Christ Lutheran volunteers and the staff of McClintock. Despite struggles in the beginning, both with numbers and behavior, they continue to come back each year. Staff members were a large part of this buy-in. Mr. Pinson, the Chorus instructor, became involved in the beginning because of his appreciation of CLC's desire to help. He also recognized the need for an African American presence: "I felt that if the students understood that I had bought in then they would buy in and be willing to participate in the things that were being presented to them."

PROGRAM HIGHLIGHT: Teacher Partners

Teacher Partners pray for their teachers daily and communicate on a regular basis throughout the school year via email or visits during free periods. Many will also send cards and little gifts. Most drop-off at school, but others who live further away will leave items at church on Sunday for another volunteer to deliver. Some partners develop a close relationship while others simply appreciate the prayers and email communications. The 2012-2013 school year had the most teacher partners with 17 supporting 23 teachers. This year, 2014-2015, 12 teachers are supported by 9 teacher partners. All teachers who request a Teacher Partner are matched with one.

One teacher summed up the impact of the partnership: "Just imagine the impact we could make here in Charlotte and nationally, if long term, deep, substantive partnerships like the one with Christ Lutheran Church and McClintock Middle School (McPIE) were replicated. The commitment is amazing, consider me an ambassador for life."

PARTNERSHIP HIGHLIGHT

Corporate Information Technologies (CIT) is an information technology engineering firm that serves the Southeast United States. The CIT President (and Chief Systems Engineer) was connected to McPIE in 2009 and has run a Computer Building each semester since. CIT arranges for computer donations from area banks and corporations, which they disassemble for the club. Students signed up for this one semester club rebuild the computers, learning basic computer skills and mechanics of how things are assembled as well as about static and current electricity. At the end of the semester, the students get to bring their built computer home. Approximately, ten to fifteen students participate each semester, so over 100 computers have gone home with students over the past 5 years. Some parent volunteers have also been able to build a computer to bring home.

This community volunteer is not affiliated with CLC, but was approached by a volunteer after speaking at an event. He has now run the club for six years and has served on the board for 2 years.

PROGRAM HIGHLIGHT: Partnerships

McPIE engages and elevates partners for all programs and support efforts. Below is a list of partners, funders, and gift givers that have made the work of McPIE possible.

Partners – Present and Past

Charlotte Mecklenburg Schools
Freedom School Partners
DonorsChoose.org
Foundation For The Carolinas
NovusWay – Lutheridge & Lutherock Camps
Urban Ministry Center
North Carolina Court System
Mayor’s Mentoring Alliance
CMPD – Gang of One
University of North Carolina at Charlotte
Providence Day School
Charlotte Latin School
Trips For Kids Charlotte
Latin American Coalition
Boy Scouts of America - Mecklenburg County
Girl Scouts - Hornets’ Nest Council
Genesis Project I, Inc.
Charlotte Junior Rugby Association
Charlotte Mecklenburg Scholastic Chess Assn.
Mecklenburg County Park and Recreation –
McDowell Nature Center
Corporate Information Technologies
Fly to Learn
Discovery Education
Ten80 Education
Camp Invention
POST – Partners In Out of School Time
Bright Hopes Inc.
Charlotte Boxing Academy
H.E.L.P. (Hip-Hop Education Literacy Program)
BB Dance Productions
P.I.T. – Performance Instruction and Training
Concord Regional Airport
Joe Gibbs Racing Aviation
Hendrick Motorsports Aviation
Social Venture Partners – SEED 20
Central Piedmont Community College (CPCC)
Firestone – Idlewilde & Independence
Cross Country For Youth
Charlotte Area STEM Teaching & Learning
Environment (CASTLE)
Communities in Schools
And many dedicated volunteers

Funders – Present and Past

Christ Lutheran Church
Burroughs Wellcome Fund SSEP
Cognizant Making The Future
Thrivent Financial

Women’s Impact Fund
Deaconess Community of the ELCA
Charlotte South Rotary
ELCA Domestic Hunger Grant
ELCA NC Synod Michael Peeler Grant
Gang Prevention Coalition
Charlotte Mecklenburg Community Foundation
Front Porch Grant
Wheat Ridge
Time Warner Cable Connect A Million Minds
Bentley Systems
Edifice Inc.
Balfour Beatty
Ernst & Young
Elliott Davis Decosimo
Shumaker Loop & Kendrick
Davita
Queen City Optimist Club
Second String Santas
ICG Capital Partners
Women Executives For Community Service
Providence Planters Garden Club
And many generous individuals

Gifts In Kind

Habitat ReStore
Bank of America
Ascension Insurance
Wachovia/Wells Fargo
Carolina Pad
Morningstar Mini-Storage
Corporate Information Technologies
WFAE
Yes I Can Play Foundation
Camp Thunderbird
Carolina Raptor Center
NASCAR Hall of Fame & K. Kahne Foundation
Hendrick Automotive
Rosen Publishing
Junior Achievement Project Biz
Steve Smith Football Camp
Kemba Walker Basketball Camp
Charlotte Nature Museum
PetSmart – Matthews
Providence Produce Market

Matching Gift Funds

Bank of America
Piedmont Natural Gas
Hewlett Packard
Wachovia
Duke Energy
SPX
Microsoft

Part III: Supporting Families

Parent Engagement

“We know that family involvement is really a key factor in students getting better grades, in students improving their attendance, reading proficiency, and ultimately graduating from high school.” – Principal Williams

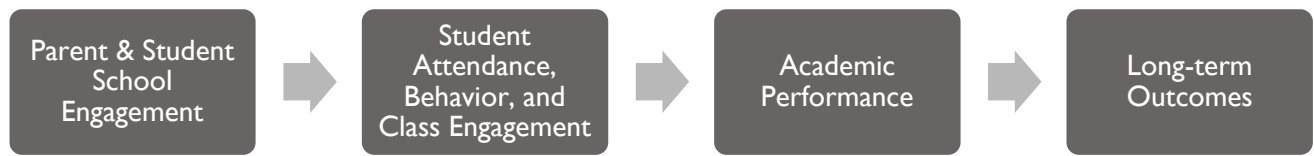
In a conversation with parents, some reported knowing about McPIE when their child started at McClintock, but that it still surpassed expectations. They specifically described their surprise at the level of participation and consistency each week. One parent added that even though her friend has been coming for three years and telling her about it, she was still surprised. 81% of parents surveyed (n=33) said that attending Family Nights has increased their engagement at McClintock. Further, 79% indicated that Family Night improved their attitude toward McClintock. Likewise, 65% of parents felt that attending Family Nights improved their child’s attitude toward school with 68% saying it improved their child’s attitude towards McClintock, specifically.

One teacher noted that the improved attitude is likely due to having a “safe reason for being in the school.” She elaborated: “Parents are usually only asked to come when something is wrong. So, as a result, they had a bad taste in their mouth for coming to school, but Family Night...makes them feel more comfortable.” Providing a positive outlet breaks down a major barrier to parent engagement, particularly by inviting the entire family. Parents remarked that Family Night is “welcoming for the entire family” and that “daycare is a blessing.” A volunteer noted that in some cases one parent may have started coming, but by the end both parents were attending.

Parent engagement directly helps students. A club leader shared a story of two brothers that were in his class:

*We had a set of brothers that were actually in the class and one time I had to send one of them out of the class. He was just disruptive and was making an unpleasant experience for everyone. The next week their father came in and for the rest of the class, he sat there with them. They were amazing for the rest of class and then the next year. Just to see the change they had from their dad coming in, sitting with them, making sure they behaved. They came back to the class without their father. And I've seen not quite as dramatic examples over the years. **When the parents are involved and they take interest in what their kids are doing, there are better results all around.***

That so many parents increased their engagement and attitude contributes to the theory of change that drives McPIE:



One interviewee talked about how parent engagement has evolved: “When they first started there was an antagonistic relationship with the school. All they (parents) wanted to do at first was complain...by my last year, the trust was already built. They knew that McPIE was there to help the families and the kids were really being cared for... McPIE was a bridge and community builder.”

In addition to what parent engagement contributes to their child’s education, 76% of parents said that attending Family Nights increased their knowledge of resources in the community. Interviewees also talked about parents connecting to each other. One year a parent group did what they called “healthy fun,” once a month they got together outside of school and did activities such as bowling or going out to eat.

Though almost all parents reported coming to Family Night because of the club opportunities for their child, **64% reported that one of the main reasons they come to Family Night is the programming for themselves.** Parents can choose between Parent U (a series of guest speakers), English as a Second Language, Bible Study, or one of two Pathways Out of Poverty Programs: Women’s Journey or Getting Ahead in a Just-Gettin’-By World (see Appendix A for more information).

PARENT HIGHLIGHT

One mother was so impacted by the **Getting Ahead in a Just-Gettin’-By World** course that she became a certified instructor. She has continued to teach the course even as her son now prepares to graduate from high school. In fall 2015, she will begin training another parent to be an instructor.

PROGRAM HIGHLIGHT: Evidence-Based Pathways Out of Poverty Classes

I. Getting Ahead in a Just-Gettin' By World – Each year about 10 parents participate in a year-long class designed to help families build a more prosperous life. On the first day some groundwork is laid: they won't be using the term "poverty," but "crisis." They will discover "where we are," "where we want to go," and "how to get there." The evidence-based curriculum is a bit longer than what can be covered in a year of Family Nights and parents described going back over parts they had worked through a bit quickly in class by themselves. When the facilitator got stuck on a long-line on Election Day, the class worked through that week's lesson together. Many of the class participants recently moved to town and don't have a local support system; by the end they are like family.

Adding to the benefit of the lessons in the class, the class comes with a stipend of \$10 each week, as prescribed by the program. For couples who take the class together, Tuesday nights means meals for the entire family, daycare for the youngest and enriching activities for the older children, and \$20 cash. If dinner were valued at just \$5, the value for a family of 5 with two parents participating would be \$1,145 over the course of one year—a game changer for families who make below the poverty line of \$28,410 (for a family of 5).

II. Women's Journey – The women who participate in Women's Journey address issues that many struggle with including self-esteem, abortion, rape, drugs, alcohol, and sexual addiction. The classroom facilitator establishes a safe haven and encourages the participants to journal. Women share what they want to change in their lives, set short-term goals, and discuss their progress each week.

Like Getting Ahead, Women's Journey comes with a \$10 stipend for participants.

Note: The stipend is not advertised when parents register for either class. This is intentional as both classes require parents to be vulnerable and money should not be a motivating factor for sign-up.

Family Nights are structured to overcome three major barriers to participation: transportation, childcare, and meals. Parent engagement is not limited to Family Nights, however; McPIE breaks down barriers to participation throughout the summer as well. For Freedom School students, parents are invited to three Freedom School Family Nights as well as Freedom School Finale. Parents who attend the Freedom School Family Nights have a meal with their child(ren), see the students perform, and have a speaker geared towards parents. Transportation is available for all three. Further, Freedom School students are invited to perform for the CLC congregation. To help the parents come on Sunday morning they are able to sign-up for transportation with their child. If they have a vehicle to drive, McPIE offers gas cards.

PARENT HIGHLIGHT

McPIE also employs parents. Two new part-time positions in 2015, Programs Assistant and Transportation Coordinator, were filled by McClintock parents.

Parents of science camp students also have the opportunity to engage over the summer. At the end of each camp, parents are invited to a summer showcase to hear about the work the students did over the summer and see the final products.

Younger Siblings

STUDENT HIGHLIGHT

On Principal Williams' first day, an elementary-aged student who had been attending Family Night for five years showed him confidently around the building. That student would one day be a McClintock student.

Family Night and Freedom School eases the transition for many incoming students.

Programming for younger siblings allows elementary students to become comfortable and confident for their transition to middle school. All 15 who responded to a Family Night survey said they'd continue to come to Family Nights when they were in Middle School. One lamented he could not already be in the basketball oriented club, Nothing but NET (Nurturing Education and Talent).

Freedom School is another example of how McPIE supports families through its programming. The first two years of summer camps were for middle school students only. Staff realized that this created a hardship on families as middle school students are often called upon to care for younger siblings when school is out. To better wrap-around and support the entire family, McPIE chose to open a Freedom School site. By expanding summer camps to younger siblings, McPIE is more effectively addressing the literacy gaps of the middle school students who now have to miss less, better preparing the elementary school students who will one day be at McClintock, and supporting families in the process.

Crisis Intervention

McPIE has a part-time Community Liaison who develops relationships with families, provides connections to resources, and encourages participation in Family Night. Technically crisis intervention is through the church and usually only with families with whom they have developed relationships. However, situations have arisen that lead to multiple families needing assistance and quickly. The most significant being the closing of Silver Oaks Apartments.

PROGRAM HIGHLIGHT: Silver Oaks Apartments

In fall 2013, hundreds of families were given less than two months to vacate their apartment and find a new home. To make matters more difficult, the Thanksgiving and Christmas holidays fell into that two month window. The apartment complex is within the McClintock boundaries and the closing affected many families with middle school students. McPIE responded by providing referrals to Crisis Assistance Ministry for both McClintock families and other displaced residents.

Role of Religion

While religion is an incontrovertible driver of the work of McPIE and its volunteers, interviewees said that it is clear in communication and actions that McPIE does not try to convert or preach to McClintock families. There was no religious component to any programming until an adult-only Bible Study was started during Family Nights at parent request.

Families have been invited to and welcomed into the church as well, if they express such interest. CLC has a dinner then classes for adults and children each Wednesday night. A very similar model to their Family Nights, CLC will also provide transportation to any McClintock family that wishes to attend. The same goes for services on Sundays. For three years, CLC held a weekly worship service at McClintock. When McClintock was closed for construction, the McClintock service was moved to CLC. When McClintock construction was complete CLC asked the attending parents if they would like to move back to the school or continue attending at CLC. The families decided to stay because they felt welcome in the larger community.

Today, twenty to forty McClintock family members attend the Wednesday night program, “Wednesdays Together,” or Sunday service. This is about 10 or 12 families, all of whom receive transportation. While it is a benefit to McClintock families who may not have had a church home, the families are having an impact on the church as well. As one interviewee described, “now that we have more diversity from the McClintock community we are attracting more diverse families...which is nice because church is for all people.”

FAMILY HIGHLIGHT

Because of transportation barriers, one family reported that this is the first time in years they have been able to have a church home.

Part IV: Inspiring Volunteers

Overview

Volunteers are integral to all McPIE programming, especially since there is no staff that is solely dedicated to McPIE. Volunteers are diverse: college students, current McClintock parents, former McClintock parents and students, church members and community members. Some are full-time or part-time employed, while others are retired. A system of coordinators organizes transportation, meals, adult programs, younger children, high schools students, and middle school clubs for Family Nights. There is also a coordinator for daytime activities. As mentioned in the program overview, McClintock had just a handful of volunteers before McPIE. There are now over one hundred per week.

VOLUNTEER HIGHLIGHT

Student leaders from Freedom School are encouraged to stay engaged during the year. Their presence provides continuity for the students and allows them to interact with students like them that are in college. In the 2014-2015 school year, two student leaders from Freedom School stayed on leading a club in the fall then the younger sibling rooms in the spring. The student leaders are provided with a \$500 stipend each semester to help with transportation and other costs.

Motivations

Part of the McPIE motto is “inspiring volunteers.” As an integral part of the partnership’s success, efforts were made to learn what motivates McPIE volunteers. A validated survey on volunteer motivation, the Volunteer Functions Inventory,²⁷ was completed by 40 Family Night volunteers. These volunteers averaged 4 years of McPIE service. While 34 were associated with the church in some way, former parents, students, and Freedom School employees were also included. Three were both former parents and church members.

The survey tool considers six different motives of why people volunteer: protective, values, career, social, understanding and enhancement. The two motives that most influenced McPIE volunteers were values (defined as a way to express one’s altruistic and humanitarian values) and understanding (a way to gain knowledge, skills, and abilities).

Values

Non-church and church volunteers alike cited motivations for volunteering that aligned with values. As quoted earlier, a community member is proud to be a part of McPIE because of the active way Christ Lutheran adopted McClintock, tapping into the humanitarian value of meaningful

²⁷ Clary, E.G., Ridge, R.D., Stukas, A.A., Snyder, M., Copeland, J., Haugen, J. & Miene, P. (1998). Understanding and Assessing the Motivations of Volunteers: A Functional Approach. *Journal of Personality and Social Psychology*, 74(6), 1516-1530.

service. Volunteers also described interacting with students, building mutual respect, and admiration of the commitment of parents as reasons to engage each week.

For church members, the motivation of values extends to church. The Evangelical Lutheran Church in America, of which Christ Lutheran is a congregation, encourages its members to “share God’s love and serve our neighbor.”²⁸ Church member volunteers were asked a series of questions regarding how McPIE has affected their relationship with the Church and Christ. Eleven respondents (77%) said volunteering with McPIE strengthened their relationship with both others at church and with the church to a moderate or large extent. Volunteering also created a sense of community within the larger church community, which a volunteer shared with the research team could be overwhelming with over 1,000 active worshippers. Sixty percent of respondents said volunteering at McPIE made them feel part of a community within a large community to a **large** extent. Finally, eighty percent of volunteers said volunteering strengthened their relationship with Christ.

Understanding

There are two main ways the motivation of understanding is realized at McPIE: understanding of the families and sharing of skills.

Volunteering is broadening the understanding of volunteers for those not like themselves whether age, socioeconomic status, or race. All volunteers are encouraged to take a “Bridges Out of Poverty” workshop, which helps participants understand the causes of poverty from the individual to the systemic level. The workshop helps prepare volunteers to work with the McClintock community population. All volunteers surveyed report that volunteering has **increased their awareness of community needs** with eighteen out of twenty saying to a moderate or large extent. Further, nineteen out of twenty surveyed volunteers reported that volunteering at McPIE **built their confidence in working with diverse populations** with 8 reporting to a large extent. When asked about what surprised them most about interacting with parents one responded, “**Their commitments to their families despite their circumstances. Their strength and bravery to embrace new opportunities.**” About interacting with students, another was surprised by: “**how aware that each student is about certain behaviors and ways to improve self-esteem.**”

While half of volunteers chose their position based on their passion/skill, some volunteers assist teachers in clubs they are not as familiar with, such as Computer Building, and end up learning skills as well. A handful of parent volunteers have been able to build their own computers, other volunteers have learned about young adult literature, woodworking, and computer animation. Ninety-five percent of volunteers reported being **exposed to a new experience** to a moderate or large extent.

²⁸ <http://www.elca.org/Our-Work/Publicly-Engaged-Church/Volunteer>

Discussion

Top 12 Takeaways

1. McPIE's advocacy helped keep McClintock open in 2011, "This school would have been shut down had it not been for the advocacy of McPIE."
 - *All other findings would not exist without the 2011 work to keep the school open.*
2. McPIE's STEM clubs led to the creation of STEM electives, which helped McClintock become a STEAM magnet in 2014.
 - *McClintock students, even those never involved in any McPIE program, benefit from McPIE every day due to the electives they can now take.*
3. Leadership at McClintock Middle identified building community as their major need, and McPIE responded by collaboratively developing Family Night. This partnership helped ensure buy-in from the staff and the sustainability of the efforts.
4. McPIE serves a higher percentage of non-white (65% African American, 16% Hispanic) and economically disadvantaged students (82%²⁹) than the district or state (see figures 1 and 2, pages 16 and 17).
 - *McPIE serves students most in need as African American, Hispanic and economically disadvantaged students tend to have higher rates of absenteeism and suspension and lower pass rates on end of grade exams.*
5. McPIE served students averaged fewer days absent in 2013-2014 than their McClintock, CMS, and state middle school counterparts (see figure 4, page 20).
 - *Each day at school is important, with better attendance leading to better overall outcomes.*
6. McPIE served students led the way on decreasing chronic absenteeism at McClintock. Between the 2011-2012 and 2012-2013 school year, chronic absenteeism for McPIE served students dropped to 8.8% compared to 17.4% for the McClintock comparison students. The next year, McClintock comparison students closed the gap, dropping to 9.5% to McPIE served students' 8.7% (see figure 6, page 22).
 - *Decreasing chronic absenteeism in underserved populations is critical to closing the achievement gap.*

²⁹ Economically disadvantaged status is not available at the student-level so McClintock's is used as a proxy.

7. Students who participated in more McPIE sponsored STEM activities had higher math and science pass rates (see figures 16-23, pages 34 and 35).
 - *The group of McPIE served students who participated in 3 or more STEM activities had a statistically significant higher proportion of students pass their Common Core math exams than all other analyzed groups.*

8. Participants in McPIE science camps reported improved understanding of science and increased interest in STEM.
 - *In 2011, Sixth Grade Science Sleuths participants closed a gap of 38.2 percentage points compared to the rest of McClintock on their math exams between 5th and 6th grade (see figure 26, page 39).*
 - *In 2012, science camp participants had nearly double the pass rate of McClintock on the 8th grade science exam, a statistically significant difference (see figure 34, page 44).*

9. Numerous stakeholders call McPIE a model public-private partnership; McPIE created this reputation by establishing credibility and building a sense of community (see pages 51-53).
 - *“McPIE was a bridge and community builder. Trying to build community and using the school as a starting point.”*

10. McPIE meaningfully engages families by overcoming three major barriers to participation: transportation, childcare and meals (see pages 56-60).
 - *Parents called McPIE Family Night “welcoming for the entire family.”*

11. There are currently over one hundred volunteers at McClintock each week, compared to just a handful when McPIE started in 2007.

12. There is still work to be done:
 - *McPIE served students had higher rates of chronic absenteeism and averaged more days absent in 9th grade than any of the comparisons (see figure 8 and 9, pg. 24).*
 - *McPIE served students also averaged more suspensions than the McClintock comparison group in both middle school and high school though the gap was closing in 2012-2013 and 2013-2014 (see figure 13, page 29).*
 - *STEM participants outperformed the McClintock comparison group, but fell below CMS in 8th grade math and science. However, the gap narrowed in year two of the Common Core science exam (see figure 40, page 48).*

Strengths & Limitations

The ability to use administrative data from CMS is a major strength of this evaluation. Though the data is not ideal at times, there is a higher level of accuracy than self-report, particularly for students who participated as far back as 2008. Access to the administrative data also allowed for two demographically matched comparison points. Though CMS schools are increasingly homogeneous at the school-level, having comparison points that matched the racial make-up of the McPIE served students more accurately depicted how McPIE served students would have likely performed without McPIE. Finally, the addition of qualitative components furthered the ability to get a complete picture of the impact of McPIE.

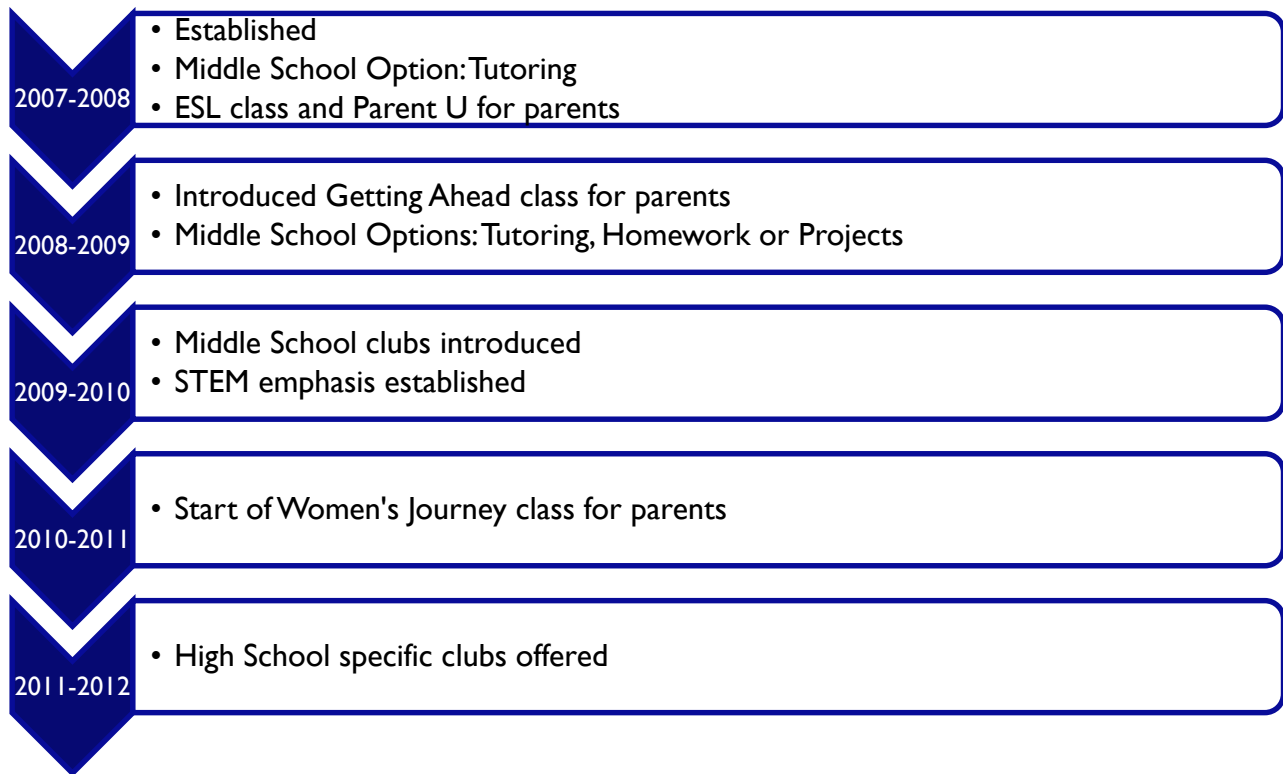
There were limitations to this study that may have caused the findings to be under or overstated. While program data were available concerning McPIE participation over the past eight years, some data were missing. For example, data were only available for 12 students the year before entering The Summer Science Experience in 2011. In addition, some students from the program list were not matched with CMS data. The most common reasons for a student not matching are a missing or incorrect birthdate or slight variation in the spelling of a student's name. Lastly, small sample sizes for some analyses limited the ability to draw statistically significant conclusions. Despite these limitations, the findings in this report provide valuable insight into the long-term schooling outcomes of McPIE served students and opportunities for growth moving forward.

Appendices

Appendix A: Timelines & Program Descriptions

Family Night

Family Night invites students and their families for a meal and activities 13 Tuesday nights each semester. Transportation is provided for over 100 students and their family members. The total expenses for Family Night in 2014-2015 was \$95,000. Family Night has experienced significant evolution since it began in fall 2007. Below are some major changes that have been made.



Middle School Students: Since the introduction of clubs in 2009, 68 different clubs have been offered with an average of sixteen offerings each semester. Some clubs have just been offered one semester, while others such as Outdoor Leadership and Computer Building have been offered every semester. At the beginning of each semester, students get to hear a little about each club offering and rank the clubs they would like to be in. Club leaders set the parameters including the size, if there is a limitation based on grade-level, and if the club is a year or semester-long.

A School Store is open about half of Family Nights for middle school students to get supplies at no cost. Guidance counselors can also access the supplies during the school day. Students in greater need are given bags filled with supplies. Teachers can also request supplies for specific projects. The supplies come from a school supply drive at CLC, corporate donations, and an ink cartridge recycling program.

Parents: Parents can sign-up for one of five classes: English as a Second Language, Bible Study, Parent U, Women’s Journey, and Getting Ahead in a Just-Gettin’-By World. Parents can also choose to volunteer in clubs or younger sibling rooms. McPIE works to make sure there are options that would appeal to all parents, regardless of their socio-economic status.

English as a Second Language primarily serves parents from Spanish-speaking families. However, the Charlotte area and McClintock community have seen an increase in the South-Asian population, which may change participation in future years. Parents take a rudimentary English proficiency test, then work with a volunteer each week.

Bible Study was started at the request of parents. Each semester they work through two books of the Bible led by the Pastors of CLC.

Parent U is a series of speakers covering topics such as middle school and high school curriculum, community resources, and mental health.

Women’s Journey is an evidence-based Pathways Out of Poverty Program and year-long women’s group. The class addresses issues that many women struggle with including drugs, alcohol, sexual addiction, and self-esteem. The class comes with a \$10 stipend per person each week.

Getting Ahead in a Just-Gettin’-By World is also an evidence-based Pathways Out of Poverty program.³⁰ It is designed as a 45-hour workshop. The class is year-long and all participants get a workbook to guide them through the curriculum. The program is designed to help individuals living in poverty build a more prosperous life and is often taken by couples. The class comes with a \$10 stipend per person each week.

³⁰ aha! Process, Inc. developed the Getting Ahead in a Just-Gettin’-By World and Bridges Out of Poverty courses and materials. For more information see: <http://www.ahaprocess.com/>

High School Students: High School students can participate in programs of The Genesis Project I, Inc.. Male students participated in “Prodigals,” while female students participate in “Girls Learning About Self-Worth & Self-Esteem” (GLASS). These programs are led by graduate students in counseling and help high school students grow into adulthood in a healthy manner.

High School students can also request to volunteer in middle school clubs or younger sibling classes. High school students must have a mentor in the club or class in which they volunteer. In many cases, the high school students that come back to volunteer are those a leader saw potential in and would like to continue working with after they leave McClintock.

Nursery and K-2 Students: A nursery is available for children not yet in kindergarten. Students in kindergarten through 2nd grade enjoy crafts, puzzles, and games as well as academic enrichment activities.

3rd-5th Grade Students: Upper elementary students are split between girls and boys. Boys can participate in Cub Scout Pack activities and girls enjoy crafts, games, and other academic enrichment activities.

Summer Camps³¹

The table below shows the progression of camp experiences for students with numbers served as available.

TABLE 2: SUMMER CAMP TIMELINE

Camps	2007	2008	2009	2010	2011	2012	2013	2014
CLC Camp*	20	30						
JA Project Biz Camp			-					
Girl Scout Tech Camp			5	-				
Camp Lutheridge**			6	-	-	22	24	22
Freedom School*			50	50	60	80	90	94
X-Plane Camp				18				
Drug Prevention				43				
Camp Thunderbird**				-	-	5	2	2
Steve Smith Football Camp					-		5	2
Ten80 Camp/The Summer Science Experience*					-	43	68	91
Nature Museum Survivor Camp					10			
Young Vet Camp					10	9		
Sixth Grade Science Sleuths*					70	103	72	102
Gaming Eureka						13	30	
Outdoor Adventure Camp (Discovery Place)						5		
Outdoor Camp (McDowell)						9		
Boy Scouts Camps (Grier and Grimes)**						-	-	-
Adventure Leadership Camp							18	10
Chris Canty Football Camp							10	3
Kemba Walker Basketball Camp								5
Total Students Served Each Year	20	30	61	111	150	289	319	331
(Approximate) % Increase From Year Previous	-	50%	103%	82%	35%	93%	10%	4%

* = Sponsored by McPIE, on-site (CLC or McClintock); ** = Overnight

³¹ In addition to serving approximately 300 students per summer, McPIE sponsored summer camps also give McClintock teachers employment opportunities during the summer.

Similar to Family Nights, summer camps have experienced evolution over the past nine years. In 2007, 20 students were served at a camp based at CLC. In 2014, over 300 students were served—primarily at the two McPIE run programs of a Freedom School site at the church and two science camps at McClintock. Below are descriptions of the current camp opportunities.

Freedom School

Children’s Defense Fund Freedom Schools programs are a national six-week summer literacy program led by college interns.³² The program is administered by Freedom School Partners in Charlotte across 19 sites. Students receive an integrated reading curriculum, reading time, enrichment activities, and field trips as well as two meals, a snack, and transportation. This program serves approximately 100 McClintock Middle School students and their siblings over a six-week camp. The cost for all students over the six-weeks is \$105,000.

Science Camps

Sixth Grade Science Sleuths (SGSS) is a two week summer camp for rising McClintock sixth graders. Fifth grade students are recruited from Greenway Park, Rama Road, Idlewild, and Lansdowne Elementary schools as well as from the incoming magnet class. SGSS is a gateway program designed to generate interest and enthusiasm for science. This program serves approximately 100 rising sixth graders (expanding to 120 in 2015) over two sessions. There are no costs to participants and in-zone transportation, breakfast, and lunch are provided.

Students spend two weeks at their new middle school engaging in hands-on activities through Invent Now’s Camp Invention, Discovery Education and Math, and exploring college and career options with Friday Field Trips. Students rotate through five modules each day. The 2014 modules were the following:

1. Amplified: Students explore the five senses and learn how they communicate with the brain. As part of a bionic research team they invent super bionic eyes, ears, and hands, and solve a mega-sensory challenge to discover how fast our senses react.
2. Super Go: Students design and power a robotic vehicle to morph for land, water, or air travel by studying different types of energy, fuels, movement and animal features.
3. Energized: Students collaborate to solve physical challenge games while experiencing the outdoors.
4. I Can Invent: Pinbug: Students create a multi-step Rube Goldberg machine out of broken appliance components and recyclables. They also build their own pinball machine.

³² For more on Freedom School Partners see: <http://freedom-school-partners.org/>

5. **STEAM Up!**: Students complete their summer reading requirement and learn about cloning by reading the novel, Double Identity by Margaret Peterson Haddix.

The Summer Science Experience expands summer science opportunities to rising 7th and 8th graders. This program also serves approximately 100 students over two sessions. There are no costs to participants and in-zone transportation, breakfast and lunch are provided.

Students participate in three of five tracks of their choosing. In addition, students attend a field trip on each Friday of the two week experience. The 2014 tracks were the following:

1. Ten80 Racing: Students learn about NASCAR through hands-on engineering activities. They use a variety of technology as they learn about speed, acceleration, forces, motion, work and power. (This is also a club and elective during the school year).
2. Fly to Learn: Students use X-Plane software to fly virtual aircraft and build and fly their own paper airplanes, rubber band powered planes, and a large radio controlled plane.
3. Raspberry Pi: Using an inexpensive, credit card-sized computer, students learn physical computing and programming. They are also introduced to electrical concepts as they wire circuit boards.
4. Water Eureka: Students learn about the chemical, physical, and biological aspects of water through hands-on labs, engineering challenges, and digital media.
5. Quadcopter Maker Space: Students build and fly an outlined quadcopter then experiment with alternative designs as they work through the engineering design process. Some of the parts used are made by the students using a 3D printer.

Currently, the science camps are made possible by a \$60,000 grant from the Burroughs Wellcome Foundation.

Sleep-away Camps

Each year McPIE helps a few dozen students secure scholarships to attend various sleep away camps such as Camp Lutheridge, Camp Thunderbird and Boy Scouts Camps. McPIE also helps to break down barriers to participation such as transportation and acquisition of physicals and needed supplies.

Charlotte-Area Day Camps

Several students each summer are sponsored to attend day camps around Charlotte such as Steve Smith's football camp, Kemba Walker's basketball camp, and outdoors camps with Mecklenburg County Park & Recreation. Last year 10 boys attended a two week Canoeing Leadership Camp at McDowell Nature Center which included a 3-day overnight camping and canoeing trip.

Other

While the primary programs of McPIE are Family Nights and summer camps, McPIE supports McClintock students, teachers, and families in additional ways, described herein.

Weekend Trips

Numerous weekend trips are offered through partnerships each year to provide students opportunities to experience new things. Examples of weekend trips include fishing, hiking, and biking. One partner, Trips for Kids Charlotte, provides mentoring through bicycling experiences and an “Earn-A-Bike” program. Students go on Tuesday night for three weeks and complete a series of hands-on lessons in basic bike mechanics and bike safety. After demonstrating bike safety comprehension they earn a bike.

Teacher Supports & Tutoring

McPIE supports teachers in numerous ways.

- When possible, McPIE starts off each school year with a classroom gift for each teacher, such as a box of copy paper. Teachers also get a holiday present and an end-of-year thank you.
- Teachers can also request a Teacher Partner. Teacher Partners pray for their teachers daily and communicate on a regular basis throughout the school year via email or visits during free periods. They also send cards and small gifts. Some partners develop a close relationship while others simply appreciate the prayers and email communications.
- A handful of volunteers tutor students during the school day throughout the year.
- McPIE encourages McClintock teachers to use DonorsChoose.org to fund needs in their classrooms, and then encourages the CLC community to give. To date, 319 McClintock Middle School projects (worth over \$135,000) have been funded on DonorsChoose.org.
- McPIE provides small amounts of funds to teachers when school funds are unavailable.
 - Each year a teacher brings deserving students to Carowinds for STEM Day. McPIE provides scholarships to students who cannot afford the trip.
 - McPIE purchased the first iPad cart for McClintock before it became a STEAM magnet.
 - Teachers can request support for out of town professional development over the summer. For example, McPIE has paid for two different Robotics teacher to go to a Carnegie Mellon training.
 - McPIE also helps support out of town trips for students such as FBLA and Robotics competitions. There is also an 8th grade trip to Atlanta, which McPIE will sponsor students recommended by teachers to attend.

Crisis Intervention

McPIE has a part-time Community Liaison who develops relationships with families, provides connections to resources, and encourages participation in Family Night.

Appendix B: Raw Data

TABLE 3: AVERAGE DAYS ABSENT (MIDDLE SCHOOL YEARS)

	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	Total
All McPIE Students	6.96	7.08	9.93	10.15	7.86	6.87	8.37
N	49	212	256	354	375	332	1578
McClintock Comparison	6.46	8.62	8.42	10.95	9.71	7.41	8.44
N	220	203	213	169	184	253	1242
Eastway Comparison	8.62	9.95	8.6	9.86	11.63	10.15	9.82
N	250	225	232	237	249	272	1465

TABLE 4: PERCENT CHRONICALLY ABSENT (MIDDLE SCHOOL YEARS)

	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	Total
All McPIE Students	14.3%	8.5%	17.2%	19.5%	8.8%	8.7%	12.7%
N	49	212	256	354	375	332	1578
McClintock Comparison	8.2%	13.3%	13.6%	18.9%	17.4%	9.5%	13.0%
N	220	203	213	169	184	253	1242
Eastway Comparison	12.40%	16.88%	11.6%	16.0%	21.7%	14.7%	15.6%
N	250	225	232	237	249	272	1465

TABLE 5: AVERAGE DAYS ABSENT (9TH GRADE)

	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	Total
All McPIE Students	13	17	17	20	16	18
N	23	92	119	166	192	592
McClintock Comparison	15	11	16	17	15	15
N	134	157	140	108	101	640
Eastway Comparison	12	18	19	16	16	16
N	122	147	152	153	136	710

TABLE 6: PERCENT CHRONICALLY ABSENT (9TH GRADE)

	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	Total
All McPIE Students	22%	33%	29%	40%	30%	33%
N	23	92	119	166	192	592
McClintock Comparison	28%	25%	28%	30%	28%	28%
N	134	157	140	108	101	640
Eastway Comparison	21%	31%	35%	29%	33%	30%
N	122	147	152	153	136	710

TABLE 7: AVERAGE DAYS SUSPENDED (MIDDLE SCHOOL YEARS)

	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	Total
McPIE Students	2.18	1.72	2.44	2.1	1.34	1.4	1.78
N	49	212	256	354	375	332	1578
McClintock Comparison	1.7	1.98	1.64	2	1.11	1.03	1.43
N	220	203	213	169	184	253	1242
Eastway Comparison	1.43	2.89	1.63	2.88	2.37	1.46	2.09
N	250	225	232	237	249	272	1465

TABLE 8: PERCENT EXPERIENCING SUSPENSION (MIDDLE SCHOOL YEARS)

	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	Total
McPIE Students	32.7%	27.4%	32.8%	33.9%	22.4%	21.4%	27.4%
N	49	212	256	354	375	332	1578
McClintock Comparison	22.3%	28.6%	25.8%	23.1%	19.0%	18.2%	22.7%
N	220	203	213	169	184	253	1242
Eastway Comparison	24%	40%	22.8%	34.6%	35.3%	18.8%	28.9%
N	250	225	232	237	249	272	1465

TABLE 9: AVERAGE DAYS SUSPENDED (9TH GRADE)

	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	Total
All McPIE Students	2	3	4	5	4	3.9
N	23	92	119	166	192	592
McClintock Comparison	3	1	2	2	4	2.3
N	134	157	140	108	101	640
Eastway Comparison	2	3	2	2	3	2.4
N	122	147	152	153	136	710

TABLE 10: PERCENT EXPERIENCING SUSPENSION (9TH GRADE)

	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	Total
All McPIE Students	34.8%	39.1%	36.1%	40.4%	37.5%	38.2%
N	23	92	119	166	192	592
McClintock Comparison	32%	22.3%	28.6%	32.4%	34.7%	29.4%
N	134	157	140	108	101	640
Eastway Comparison	27.9%	23.8%	37.5%	31.4%	25.7%	29.4%
N	122	147	152	153	136	710

TABLE I I: PERCENT PASSING MATH AND SCIENCE EXAMS

		All McPIE		1 STEM Activity		2 STEM Activities		3 or More STEM Activities		Comparison Point 1: McClintock		Comparison Point 2: Eastway	
		N	% Passing	N	% Passing	N	% Passing	N	% Passing	N	% Passing	N	% Passing
Pre Common Core	Math 08	289	81.7%	82	82.9%	40	90%	19	94.7%	365	80.5%	425	64.9%
	Science 08	286	65.0%	80	70.0%	39	69.20%	19	89.5%	362	59.9%	420	48.1%
	Algebra I	170	74.1%	39	71.8%	28	92.90%	12	66.7%	351	73.5%	321	70.4%
	Biology	82	76.8%	16	68.8%	19	78.90%	Too small to report		218	80.3%	174	76.4%
Common Core	Math 08	278	20.9%	74	18.9%	43	30.20%	39	35.9%	172	13.4%	193	12.4%
	Science 08	275	37.1%	73	37.0%	41	41.50%	39	53.8%	175	38.9%	191	41.4%
	Math I	293	31.2%	71	28.2%	41	31.70%	43	48.8%	159	27.0%	209	22.0%
	Biology	175	30.9%	44	34.1%	23	47.80%	22	50.0%	154	29.9%	182	25.8%

TABLE 12: SIXTH GRADE SCIENCE SLEUTHS (SGSS) 2011 COHORT

	2011 SGSS	McPIE	McClintock
Math 05 (2010-2011)	41.2%	62.9%	79.4%
N	17	132	Feeder School Avg. ³³
Math 06 (2011-2012)	52.9%	49.1%	54.3%
N	17	106	232
Math 07 (2012-2013)	11.8%	17.9%	21%
N	17	123	224
Math 08 (2013-2014)	14.3%	24.4%	20.7%
N	14	131	Not available ³⁴
Science 05 (2010-2011)	52.9%	54.5%	74.2%
N	17	132	Feeder School Avg.
Science 08 (2013-2014)	35.7%	47.3%	43.8%
N	14	131	

TABLE 13: SGSS 2012 COHORT

	2011 Cohort	McPIE	McClintock
Math 05 (2011-2012)	82.6%	71.4%	66.5%
N	46	133	Feeder School Avg.
Math 06 (2012-2013)	25.6%	20.8%	17.7%
N	43	120	248
Science 05 (2011-2012)	73.9%	62.4%	70.4%
N	46	133	Feeder School Avg.

³³ Information on academic performance for McClintock students when they were in fifth grade is not available. The percentage presented in Tables 12 – 14 for McClintock in fifth grade is the average passing percentage for the four McClintock feeder schools.

³⁴ New NC Report Cards for 2013-2014 provide the pass rate, but do not provide the number of students that took the test.

TABLE 14: SGSS 2013 COHORT

	2013 SGSS	McPIE	McClintock
Math 05 (2012-2013)	48.1%	37.8%	32.3%
N	27	82	Feeder School Avg.
Math 06 (2013-2014)	41.7%	26.9%	23.1%
N	24	78	Not available
Science 05 (2012-2013)	26.9%	23.2%	29.2%
N	14	82	Feeder School Avg.

TABLE 15: THE SUMMER SCIENCE EXPERIENCE 2011 COHORT (RISING 8TH ONLY)

	Summer Participants	McPIE Served	McClintock
7th Grade Math (Pre: 2010-2011)	67%	63%	63%
N	9	92	198
8th Grade Math (Post: 2011-2012)	100%	85%	88%
N	9	126	214
8th Grade Science (Post: 2011-2012)	89%	72%	70%
N	9	123	213

TABLE 16: THE SUMMER SCIENCE EXPERIENCE 2012 COHORT (RISING 8TH ONLY)

	Summer Participants	McPIE Served	McClintock
7th Grade Math (Pre: 2011-2012)	85%	69%	70%
N	27	117	215
8th Grade Math (Post: 2012-2013)	28%	18%	18%
N	25	147	215
8th Grade Science (Post: 2012-2013)	46%	28%	24%
N	26	144	216

TABLE 17: THE SUMMER SCIENCE EXPERIENCE 2013 COHORT (RISING 7TH ONLY)

	Summer Participants	McPIE Served	McClintock
6th Grade Math (Pre: 2012-2013)	23%	21%	18%
N	22	120	248
7th Grade Math (Post: 2013-2014)	27%	35%	29%
N	22	139	Not available

TABLE 18: THE SUMMER SCIENCE EXPERIENCE 2014 COHORT

	Summer Participants	McPIE Served	McClintock
6th Grade Math (Pre: 2013-2014)	39%	27%	23%
N	31	78	Not available
7th Grade Math (Pre: 2013-2014)	31%	35%	29%
N	13	139	Not available

This page was intentionally left-blank for double-sided printing.

Prepared for McClintock Partners In Education
by UNC Charlotte Urban Institute



Contact: Diane Gavarkavich
Data and Research Specialist
d.gavarkavich@uncc.edu