

Minneapolis Public Schools Spending and Population Relationships

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Table of Contents

Executive Summary1

Foreword.....3

1. Background: balancing school funding requirements and teacher rights6

2. Study Methods8

 Preliminary Analysis.....8

 Spending and Population Studies.....9

 Comparative Data10

3. Discussion of Study Focus.....11

 Why these schools?.....11

 Why the focus on General Fund spending?11

 Why the focus on teacher salaries?.....12

 How is “actual spending” defined?.....13

4. Findings.....14

 Overview of Spending and Population Correlations15

 High Schools (9-12).....16

 Middle Schools (6-8)27

 K-8 Schools.....38

 K-5 Schools.....49

5. Spending of Supplemental Funds60

6. Another View: Average Teacher Salary by Site.....63

7. Next Steps66

For Further Reading.....68

Executive Summary

This report expands on a previous, smaller study of 2002-03 Minneapolis Public Schools (MPS) teacher salary data. The earlier study found that 26 out of 28 MPS schools that had below-average teacher pay also had above-average representation of students of color and/or low income students (Bates, Bock 2005). This follow-up study examines 2004-05 MPS accounting data to determine whether similar trends are persistent, and how they impact site spending. The study shows a trend of relatively low spending at sites that serve a high proportion of disadvantaged learners, and vice versa.

What the study does and does not address.

Primary Data. The report is not focused on whether spending has a particular impact on learning. That important question is left to subsequent research. Rather, the purpose of the study is to provide primary data on actual spending of General Fund money on teacher salaries, and to observe relationships between site spending levels and student populations. Most of the existing public school spending reports are based on salary averages, a practice described at the national level as “staff-based resource allocation” (Brown and Rocha, 2005; Roza and Hill, 2003).

In focusing this study on actual spending, some disparity between sites was expected. Teachers in Minneapolis and most other districts are placed into schools according to the terms of their collective bargaining agreements, without consideration of differing salary levels. This practice can create pronounced differences in spending between sites. Looking at General Fund spending on teacher salaries at 53 Minneapolis schools in 2004-05, the highest per pupil spending figure for a single site was 4.2 times greater than the lowest per pupil spending figure.

System Finding. The most important finding is not whether site-to-site spending disparity exists at all times, but to demonstrate that the current funding distribution systems used in Minneapolis and elsewhere *allow for* significant spending disparity between schools (see Further Reading list for information on other districts). For spending equity advocates, the report concludes with discussion of various systemic remedies that could be instituted to assure that funding is spent proportionately per student, and in keeping with the established purpose of the various funding streams. Such remedies can be developed while maintaining appropriate staff protections.

Narrow Focus. The main focus of the study is on General Fund spending on teacher salaries. However, the authors do not suggest that distribution of other types of resources is unimportant. It is true that General Fund spending on teachers is one of the largest and most important expenditures made by the school district. Also, General Funding is the base onto which population-targeted funding is supposed to be added. Nevertheless, the study raises many questions. For example, is spending on administrator salaries also uneven across sites? Does uneven spending on administrators tend to ameliorate or exacerbate disparate spending on teachers? Additional research will be necessary in order to answer this and other questions. Some of the most frequently asked questions about the research are discussed starting on page 11, under headings such as: “Why the focus on teachers?” and “How is actual spending defined?”

Overview of Findings. In 2004-05, General Fund expenditures on classroom teacher salaries ranged from \$3859 to \$916 per pupil, at 53 Minneapolis Public Schools. The impact on individual schools can be estimated as follows. Anishinabe Academy spent \$916 in General Fund money per pupil on teacher salaries in 2004-05. If the school instead spent the district average for K-8 sites of \$2003 per pupil, it would have spent an additional \$1087 for each of 223 students, or \$242,401.

Aside from site particulars, trends in spending of General Fund dollars on teacher salaries in 2004-05 followed these general patterns:

⇒ Low per pupil spending at all grade levels was correlated with high representation of low income¹ students.

⇒ High per pupil spending at all grade levels was correlated with high representation of white students.

Since spending was correlated with schools' representation of low income and white students, all schools are potentially impacted by disparate spending trends, based on their reflection (or non-reflection) of these two traits. However, the study examines spending in relation to 36 different population cells: nine groups in four grade configurations. The third-strongest spending and population correlation was a pattern of high spending at schools that serve a high proportion of students who are meeting math proficiency standards. Please see page 15 for summary findings by specific population.

Comparative data and next steps.

In addition to the main spending study, comparison data is provided on:

- Actual spending of Title I, Compensatory Education and Referendum funding on teacher salaries, per site and per pupil; these programs supplement General Fund spending.
- 2004-05 average teacher salary by school.

Taken together, the report data supports the need for further investigation into questions such as: Does the spending gap contribute to the achievement gap? To what extent do accepted spending practices conflict with laws that are designed to ensure equitable distribution of public resources? How can greater spending equity be reconciled with strong employee protections?

¹ In this report, "low income" students are defined as those who qualify for free and reduced price lunches. The income qualification for this program is approximately 133% of the federal poverty threshold for free lunches, and 185% for reduced price lunches.

Foreword

By Mary Bock

This report comes out of 22 years of work with MPS stakeholders, as a parent, fundraising consultant and city resident. To illustrate the complex problem that is addressed in the study, I reference a true story of school budgeting that was once featured in the Minneapolis *Star Tribune* (Minneapolis Schools Funding Crunch: Budgeting gets up close and personal, 5/30/2005, 1B).

The story takes place during the annual site allocation process, which occurs in the spring. At that moment, equity in distribution of financial resources seems clear-cut. As the article states, the school's Principal "knows Emerson will get \$2,817,074" for the upcoming school year. Indeed, every school is notified of its fair share of basic per pupil funding, plus any supplements from Title I, Compensatory Education and special grants. Most of the base funding is allocated to schools in proportion to anticipated enrollment, which is divided by class size targets, and multiplied by the average teacher cost. In the case of supplemental funding, the district has some discretion in distribution method. In general, greater representation of low income students means a higher supplemental funding allocation.²

At allocation time, supplemental funding is clearly an *addition to* a school's fair share of base funding. This is not just a local policy. Instead, the allocation procedure provides evidence that the district intends to meet *supplement not supplant* provisions that are attached to supplemental aid. The district must use targeted aid for the additional benefit of identified groups, and cannot simply replace (supplant) part of a school's base funding, which then can be freed up for another purpose.

The *Star Tribune* article vividly describes the struggles in the site budgetary process, as the community determines which critical services to fund and which to cut. Then-Principal Luis Ortega is quoted as saying, "I can't give you what I don't have." Upon reading this article, my understanding crystallized as to what Principal Ortega had – and ultimately didn't have – to work with.

After a school's allocation is translated into a particular number of full-time equivalent teaching positions (FTEs), the site is assured of this fair number of positions. However, a specific dollar amount is not assured to the building. Actual dollars follow staff to their chosen or assigned sites. Teacher placements are determined by the complex interaction of contract provisions, position licensing classifications, management decisions and other factors. In general, more senior teachers have more choice about where they teach. In the end, teacher placement impacts site spending levels in one of three ways:

In the current resource distribution system, schools are assured a fair share of positions, but not necessarily dollars.

² Some advocates for disadvantaged learners question MPS's decision to use 30% of Compensatory Education dollars to reduce class size district-wide, as allowed by the State. This report does not examine the impact of that policy, except to say, the policy amplifies spending disparity concerns described herein.

- If a school's average teacher salary is equal to the district average salary, site spending will be very close to the site's allocation dollar amount. (The allocation is based on staff salary averages).
- If a school's average teacher salary is lower than the district average, the site will spend an amount lower than its allocation figure.
- If a school's average teacher salary is higher than the district average, the site will spend an amount higher than its allocation figure.³

The research question underlying this report began forming as follows: if the site allocation formula determines a school's fair share of funding, according to various funding stream regulations, wouldn't a district need to actually *spend* money in keeping with the allocations, in order to comply?

Beginning in spring 2005, then, I started asking questions of staff and community experts to determine whether financial controls are employed as part of the staff assignment system. The consistent answer was, "No." Moreover, many of the people consulted expressed concern over the potential for spending disparity and possible differential impact on disadvantaged students. At the same time, some people were so uncomfortable discussing the topic that one person asked his/her name to be withheld from reports.

In fact, it is not necessary to provide names of staff consulted in preparation for the report. The source data analyzed is public information provided by Minneapolis Public Schools. No public school stakeholder should have concern about personal risk in asking for a demonstration of equitable funding distribution.

By fall 2005, MPS parent Carla Bates downloaded a report from the Minnesota Department of Education (MDE) website. The report contained average teacher salary data for each MPS site. My subsequent analysis of this 2002-03 data, along with school demographics, showed the following:

- Of 21 MPS K-5, K-8 and 9-12 sites that had below-average teacher pay, 100% of the sites had above-average representation of students of color.
- Of seven MPS schools serving grades 6-8, 100% had below-average teacher pay; four of the seven had above-average representation of students of color and five of seven had above-average representation of low income students.

I provided these findings in a public comment and written report to the Minneapolis Board of Education in November 2005 (<http://www.getsirius.net/pages/MPStchrsalXstudentracetabloid02-03.pdf>).

Shortly thereafter, source data used in the study was removed from the Minnesota Department of Education website, with the explanation from state staff that there were some problems in calculating site average salaries. However, staff agreed that the general trend shown in the analysis was accurate.

³ It is understood that above-average teacher pay does not always equate to higher quality instruction. However, the common practice of tying teacher pay to years of service and training reflects an assumption that these qualities, in many cases, do add value. The fact that some highly-paid teachers are ineffective is not a justification for maintaining a system that allows for spending less on teachers at high-need sites.

Minneapolis is not unique in this matter. A national trend has been observed of lower-paid teachers working in higher-need sites (see citation list on page 68).

Lacking comparable source data on the state website to test spending and population relationships in additional years, Bates and I submitted Minnesota Data Practice Act information requests to MPS in July 2006. The data provided by Minneapolis Public Schools in response to those requests is the subject of this analysis.

With such large data sets to analyze, Bates identified the Center for Urban and Regional Affairs (CURA), at the University of Minnesota, as a possible supporter of the research project. Bates, Bock and a third MPS Parent, Seth Kirk, jointly approached Catherine Jordan, CEO of ACHIEVE!Minneapolis about sponsoring a parent research project on the equity of resource distribution in MPS. In keeping with the mission of ACHIEVE! Jordan agreed to sponsor the parent group in completing this study.

When the initial research application was turned down, I made my customary call to the funding agency to request feedback. The CURA Associate Director, Will Craig, gave more detail on the program, which has provided graduate student assistance to many community organizations over the years, on a competitive basis. After correcting numerous problems in the original project design, the application was ultimately approved. During the summer of 2007, Georges Tippens, a graduate student in a joint Law and Urban and Regional Planning program at the University of Minnesota, was hired as a research assistant.

Many thanks are due to all of the contributors, mentioned and unmentioned, and especially to the careful work of Mr. Tippens. As the co-author of this report, he analyzed thousands of financial transactions and population data in order to produce the primary data.

The report will be disseminated to groups and individuals who are working toward educational equity and school improvement. As this issue is being discussed nationally, I hope the educators and citizens of Minneapolis and Minnesota will establish themselves as leaders in addressing spending equity. At least, I hope we launch a new era of transparency in communication by reporting actual spending by school and source. In this manner we can begin to determine whether we are making best use of our limited resources. MB

1. Background: balancing school funding requirements and teacher rights

Every Minneapolis Public Schools site is allocated General Fund monies (Fund 1) based primarily upon student enrollment. These dollars come from state and local taxes. Since 1990, when Minneapolis voters approved an additional local tax, Referendum funding (Fund 96) has also provided per pupil resources. In general, Referendum funds have been used to reduce district class size targets below levels that would otherwise be necessary. General Fund and Referendum dollars form the base of school finances, and these funding streams are intended to benefit all students.

Title 1 (Fund 23) and Compensatory Education funding (Fund 31) are two of the largest sources of supplemental aid to schools, again provided through state and federal taxes. However, these funds are generated by enrollment of low income students. The supplemental funding is primarily intended to benefit targeted student groups.

As described in the Foreword, school allocations are calculated each year in keeping with stipulations placed on the funding streams. Among other requirements, districts must allocate supplemental aid as an *add-on* to a school's fair share of base funding. However, the staff assignment system, which impacts actual spending of allocated funds, operates semi-independently of the allocation process. Under the contract negotiated between the school district administration and the Minneapolis Federation of Teachers, MPS teachers have certain rights in the job assignment and transfer system. The contract is meant to meet labor laws and to provide incentives for teaching in Minneapolis. Across widely varying opinions of the contract, it is fair to say that teacher placement is the result of a combination of factors including teacher-, district- and school-determined choices. Critics of the current system feel that "seniority rules" over other, more important, considerations in teacher placement. Supporters of the current system believe that most poor placements are brought about by poor management.

Wherever one stands on the teacher contract, and though many highly-paid teachers continue to work in high-need sites, the general trend is for higher-paid teachers to become concentrated in lower-need sites. In effect, this shifts a disproportionate amount of spending to schools serving a more privileged student population. However, even if one agrees that spending inequity is a problem, it is still unclear whether attacking the stated contract priorities of teacher unions, such as transfer and assignment rights, is wise. Teacher unions are one of the strongest forces in public education. Challenging the system in a manner that serves to reduce the proportion of teaching jobs that are unionized, for instance by expanding the number of independent charters, will most likely reduce teacher pay overall. This could reduce the quality of candidates seeking teaching careers. Moreover, further fragmentation of the system could increase the difficulty of maintaining unified advocacy for policies and funding to support public education.

Thus, it is important for allies of traditional public schools and unions to address problems that can reflect poorly on the system, such as a pattern of low spending in high-need schools. Up until now, most efforts to retain proven teachers at schools serving disadvantaged students have focused on providing incentives. Since 2006, the U.S. Department of Education has granted funds to states and the District of Columbia to

provide financial incentives to educators, especially those who can produce results in high-need sites.⁴ Minnesota has started its own program with similar goals, known as the Q-Comp system.

Questions remain as to whether school systems can sustain incentives, whether the incentives will fully address the spending disparity problem, and whether an additional incentive should be necessary in order to assure equitable per pupil spending of base funds. Assurances that are attached to supplemental grants already appear to require equitable distribution of base funding, prior to allocation of supplemental funds.

The dilemma is not unique to Minneapolis. The finance practices in question are typical, and have survived state monitoring and annual financial audits across the country. But as spending equity is scrutinized, it is up to policy makers to determine whether the current accepted practice of “staff-based allocation” provides the highest quality educational experience to students, while making best use of limited education dollars (Hill, 2007; Brown and Rocha, 2005; Roza and Hill, 2003).

In any case, if current resource distribution systems continue to be used, grant assurances and communication with the public should be revised to accurately convey that the system provides equitable distribution of positions, but not necessarily dollars. Citizens should have access to spending reports that are based on actual salaries, which are public data.

Greater transparency will allow parents and funders to make informed decisions as to whether the system is serving their needs and the common good. Public school stakeholders should be prepared to find – due to previous communications about allocations and a common sense definition of fairness – many citizens believe that each school has (or should have) the opportunity to spend its fair share of resources. Even though arguments can be mounted in favor of “staff-based allocation,” many families and advocates will reasonably reject a system that deals more base funding to schools serving privileged students. In this light, it is important to note that one of the factors driving loss of enrollment and unionized teaching jobs at this time is exodus of groups that have been shortchanged in the current system.

Please see the reading list on page 68 to gain greater understanding of the current national dialogue on spending equity and school quality.

⁴ Long Reviled, Merit Pay Gains Among Teachers, Sam Dillon, *New York Times*, June 18, 2007.

2. Study Methods

This is an informal study of data provided by Minneapolis Public Schools (MPS) to Mary Bock and Carla Bates, both of whom are Minneapolis Public Schools parents. The data was sent to the parents in response to information requests made under the Minnesota Data Practices Act. This chapter simply enumerates the steps taken to analyze the data. The next chapter provides more of the rationale for the steps taken.

Preliminary Analysis

The study examines actual spending on classroom teacher salaries during the 2004-05 school year. The raw spending data included 22,643 transactions of different types. After consultation with MPS Finance staff, the following steps were taken:

- The first step was to delete all rows from the spreadsheet except those with an amount in the ACTIVITY (transaction) column, and “Classroom Teachers 140” in the OBJECT column.

FISCAL YEAR	ACTIVITY	OBJECT
2005	80,561.76	Classroom Teachers 140

- This subset of transactions was further limited to payments made from one of the four largest funding categories as indicated in the FUND column. Specifically, transactions were retained in the dataset that had General Fund (01), Title I (23), Compensatory Education (31) or Referendum (96) shown in the FUND column.

FISCAL YEAR	FUND	ACTIVITY	OBJECT
2005	01	80,561.76	Classroom Teachers 140

- This subset of transactions was further limited to those involving schools with 10 or more teacher FTEs during 2004-05. All MPS schools with unique school codes and at least 10 teacher FTEs, according to the Minnesota Department of Education website, were included in the study and are listed by name in the Findings chapter.

FISCAL YEAR	Fund	ACTIVITY	SITE	OBJECT
2005	01	80,561.76	Armatage 103	Classroom Teachers 140

- The resulting subset of teacher salary expenditures was sorted by SITE, and within each site, by FUND.
- Transactions involving K-5, K-8, 6-8 and 9-12 sites were divided into separate tables for study purposes.
- Teacher salary expenditures were totaled for each site, with subtotals shown for each fund.
- The site spending totals and fund subtotals were divided by the number of students enrolled at the site, based on the official count of students that was reported to the state in October of 2004. This

produced a per pupil expenditure amount for teacher salaries at each school, segmented by the major funding streams.

- To determine the district average per pupil spending amounts for each grade configuration, the site totals and fund subtotals within each grade grouping (K-5, K-8, 6-8 and 9-12) were added together and divided by the total enrollment for the grade configuration.
- Finally, all expenditures except the General Fund (Fund 1) transactions were temporarily set aside, leaving the main dataset to contain: General Fund expenditures on teacher salaries, expressed as a per pupil amount at each site, with a district per pupil spending figure also shown for each grade configuration. The number of students and representation of demographic groups at each school was recorded, using October 2004 data posted on the Minnesota Department of Education website. See Figures 1 and 2 under each grade configuration group in the Findings chapter, for the primary datasets used in the analysis (pages 16-17 provide an example).

Spending and Population Studies

- To determine whether and how General Fund spending on teacher salaries related to school populations, nine line graphs were generated for each of the four grade configuration groups. The 36 line graphs in the Findings chapter have three lines representing site spending and population as follows:
 - The first line on each graph is the same for all charts within a grade configuration. This line shows site per pupil spending of General Fund money on teacher salaries, expressed as a percentage of the district average spending for that grade configuration. Since sites are arranged from highest to lowest average spending, this line is always falling from left to right (for example, see page 18).
 - The second line shows a particular population group's representation at the sites. The use of nine line graphs under each grade configuration allows observation of spending in relation to eight demographic groupings that are identified for accountability measurement in the No Child Left Behind legislation, plus one academic measure.
 - While the spending line on each graph is falling from left to right, the site population line increases and decreases. This is because, even when site spending is strongly correlated with demographics, the conditions at some sites differ significantly from the overall trend. This highlights an important point. The study focus is not primarily on spending at individual sites. Rather, the focus is on general trends in spending that may be correlated with site demographics.
 - A linear trend line was applied to the population data line on each graph, as an automated function in Microsoft Excel (for example, see page 18). The population trend line compared to the spending line on the 36 graphs provides one method of measuring the population and spending relationships.

- In a few cases, the trend line was flat or nearly flat. In other cases, outlier values at a single school affected what would otherwise have been a more moderate trend. As a result, some spending and population relationships are characterized as “undetermined” or “weak” for 2004-05.

To assist in pinpointing the nature of the spending and population relationships, a Pearson product-moment correlation coefficient was calculated for the 36 trend studies. In most cases the correlation coefficient and the trend line give a similar impression of the spending and population relationships. In a few cases, the coefficient should be considered more informative than the appearance of the trend line. Having a greater or lesser number of schools in the study group, or having sites that vary widely from the trend, can make similar overall relationships appear different. Noting the coefficient values can be helpful in these cases.

Comparative Data

- Additional information is provided on actual spending of Title 1 (Fund 23), Compensatory Education (Fund 31) and Referendum (Fund 96) dollars on classroom teacher salaries (page 60). A follow up information request and study will be needed to fully analyze spending of these funds compared to allocations.
- Information is also provided on average teacher salary by site for 2004-05 (page 63). Again, more analysis is needed to fully understand relationships between average teacher salary, spending by fund and populations. However, the data provide an interesting comparison to the spending studies.

3. Discussion of Study Focus

Why these schools?

- A school was included in the study if it had 10 or more teacher FTEs who were hired and paid directly by the school district under the terms of the collective bargaining agreement with the Minneapolis Federation of Teachers. A main research question is whether the district's implementation of the union contract tends to result in a pattern of higher spending at sites serving more privileged student populations. Special MPS sites that perform their own hiring of teachers outside of the union contract were thus excluded from the study.
- Some of the schools included in the study have closed. They are included because the analysis addresses the effects of overall spending and human resources policy rather than site-specific spending concerns. There is a unique story behind each school's spending figures, which is an important topic of discussion. However, it is not the subject of the current study.

Why the focus on General Fund spending?

- General Fund spending on teacher salaries is one of the largest expenditures made by Minneapolis and other public school districts.
- General Fund money is not targeted to serve a specific group of students, but is instead generated in proportion to expected total enrollment. In part due to messages communicated to the public at allocation time, many education stakeholders believe that each school has the opportunity to spend its equitable share of General Fund and other dollars.
- General Fund money is the base to which supplemental funding is added. Eligibility for supplemental aid varies by school, depending on student population and participation in special projects. Restrictions are attached to most supplemental funding, stating that the add-on funding must *increase* the schools' resources, and not simply supplant (replace) base funding. The allocation process demonstrates awareness of and intent to comply with *supplement not supplant* provisions that are attached to supplemental aid.
- There has been opportunity for General Fund spending disparity to emerge, in the absence of financial controls and reports based on actual spending by site. Finance systems provide the capacity to report out actual per pupil spending, by fund and by site. But the accepted practice in Minneapolis and elsewhere is to make accounting adjustments in order to generate reports that depict teacher salaries as matching the district average salary.
- Indeed, analysis of General Fund money does not tell the whole story. Spending of supplemental funds must be analyzed to understand the full extent of spending disparity. Supplemental funds like Title I and Compensatory Education have more reporting requirements attached, but the research suggests that these reports are also based on salary averages. As a starting point for future inquiry into this topic, charts showing actual per pupil spending of supplemental aid for 2004-05 are provided in chapter 5, Spending of Supplemental Funds (see page 60).

- In viewing the charts in Chapter 5, it is interesting to note that actual spending of Referendum funding on teacher salaries reflects per pupil dollar-parity across sites (pages 60-62). Stipulations attached to Referendum funding require as much. Because Referendum spending is even per pupil, it is not necessary to analyze it further. Including Referendum funding in the analysis of per pupil spending figures at each site would have raised those figures. But doing so would not have changed the proportions observed in the study.

Why the focus on teacher salaries?

- Spending on administrative salaries and distribution of other school resources is of interest for future study. But as a matter of priority, the district spends the most money on teachers. More importantly, teacher quality is believed to impact student learning more than any other school-controlled resource. A website providing citations and links to extensive documentation that support this claim is maintained by the National Institute for Excellence in Teaching at <http://www.talentedteachers.org/>.
- It is clearly understood that salary level does not necessarily equate to teacher quality. At the same time, salary scales have traditionally attempted to reflect *indicators* of teacher quality, such as training and experience. Merit pay systems, which are becoming more common, will strengthen the link between spending and teacher quality. In this context, it is even more important to control distribution of spending.
- A financial control seeking to maintain average teacher salary among sites would prevent two negative outcomes that can easily occur in the current system:
 - Concentration of lower-paid, inexperienced teachers in a site, and,
 - Concentration of highly-paid, minimally effective teachers in a site.
- The cost of teacher fringe benefits is not included in the analysis. The general effect of including fringe benefits would have been to show per pupil spending approximately one-third higher at each site.
- The narrow focus on classroom teacher salary expenditures increases the probability of analyzing similar expenditures across sites.

How is “actual spending” defined?

After consultation with MPS Finance staff, the authors defined “actual spending” as the amount in the ACTIVITY column for each financial transaction, prior to debiting and crediting of the expenditure fund.

- When money is spent from a particular fund, the amount of the transaction is recorded in the ACTIVITY field. But DEBIT and CREDIT amounts may also be recorded, which determine how the cost is ultimately attributed to the various funding sources.

FY	FUND	ACTIVITY	DEBIT-TOTAL	CREDIT-TOTAL	SITE	OBJECT
2005	01	80,561.76	93,447.20	12,885.44	Armatage 103	Classroom Teachers 140

- In the case of teacher salary expenditures, the net effect of debiting and crediting is that reports on various sites and funds ultimately reflect the district average salary for teaching positions. In the example above, an amount greater than the expenditure activity is debited to the General Fund. The difference is recorded as a credit to the General Fund. But the credit amount has to be supported by a funding source. In situations like this, a credit amount can become available from the process of debiting and crediting other teachers’ salaries to other funds.
- The study does not imply that fund accounting adjustments are inappropriate, as they have passed audits and monitoring. Rather, by focusing on spending ACTIVITY amounts, the study provides a unique report that is not based on adjusted salary charges.
- Due to the method used, it is possible that the study mistakenly ignores or includes some actual spending in the analysis, in cases where fund debits and credits were made for reasons besides salary averaging. A definitive study would require review of each and every transaction by finance staff. Such time investment is unnecessary to determine that the current system is vulnerable to spending disparity by site. Even if the level of disparity is over- or under-reported in this study, the reader can conclude that millions of dollars can be shifted between schools and funds in the current system.

4. Findings

The study findings are based on review of General Fund spending on teacher salaries in relation to 36 population groups (nine population groups within four grade configurations).

Under each grade configuration, the same sequence of 11 figures is provided:

- Figure 1 shows General Fund spending per site, per student for classroom teachers. The district average expenditure per student for each grade configuration is also shown.
- Figure 2 shows source data for the spending and population studies that follow.
- Figures 3-10 show spending trends in relation to representation of eight demographic groups, including those identified for accountability measurement under the No Child Left Behind Act. The groups include free and reduced lunch eligible students, those with limited English proficiency, special education students and five racial/ethnic groups. Students may belong to one or more of the categories.
- Figure 11 shows spending trends in relation to student performance on a selected academic measure. A math measure is chosen for each grade configuration. This is obviously a very limited view of the relationship between academic performance and spending, and is meant primarily to open an area of inquiry for future study.

Important notes: Bold type is used in the trend statements, located above each line graph, to indicate trends in which lower spending is associated with significantly higher representation of a disadvantaged student group or vice versa.

To provide better understanding of the population and spending relationships, the Pearson correlation coefficient for the spending and demographic datasets is also provided (see next page for summary).

Overview of Spending and Population Correlations

Statistical tests were conducted to determine whether higher representation of 36 different population groups was correlated with higher spending (a positive correlation) or lower spending (a negative correlation). A statistics background is not necessary to understand the findings, if the reader keeps in mind the following: a positive correlation means that two variables either increase *or* decrease in a parallel fashion. A negative correlation means that when one variable goes up, the other goes down, and vice versa.

Correlations shown in **bold** in the chart below meet the following criteria:

They indicate a trend of higher spending in lower-need sites

OR

They indicate a trend of lower spending in higher-need sites.

Correlations that are shown in bold *and* red meet the following criteria:

The correlation is strong (.5 to 1 or -.5 to -1)

OR

The correlation is of moderate strength (.3 to .49 or -.3 to -.49).

Spending equity advocates should pay special attention to rows and columns in which all correlation coefficients are either red or bold. Underlining of headings calls attention to the populations that were most likely to be affected by disparate spending in 2004-05.

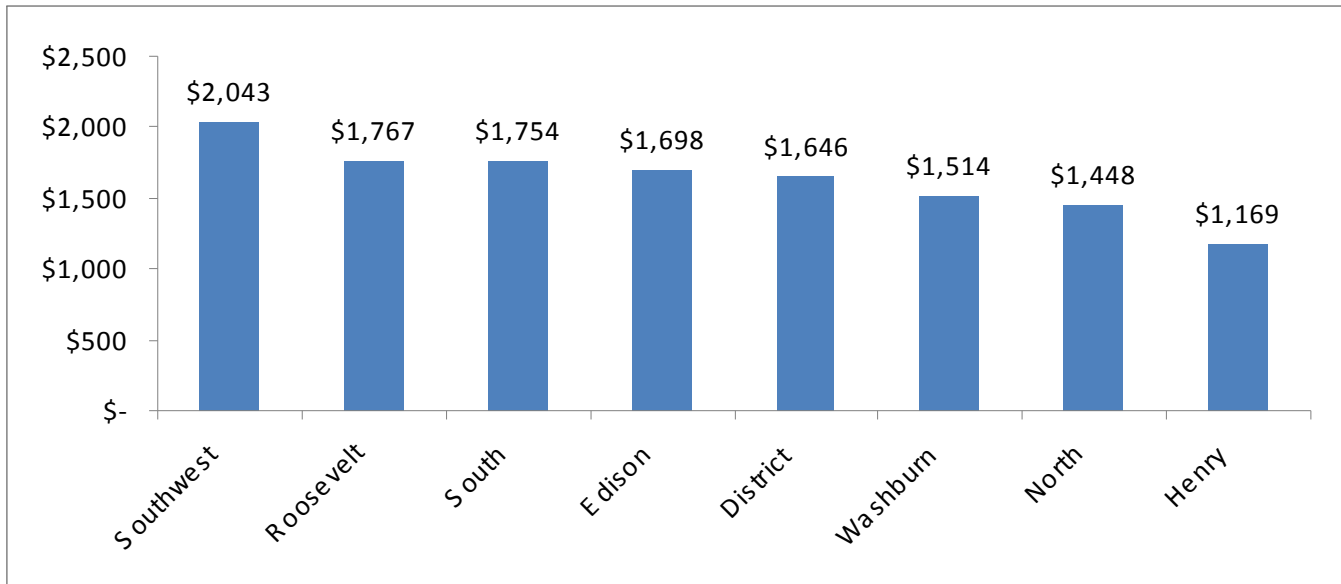
Pearson Correlation Coefficient for MPS General Fund Spending on Teacher Salaries vs. Selected Population Groups, 2004-05	9-12	<u>6-8</u>	K-8	K-5
<u>Spending and % Free Reduced Lunch</u>	-0.59	-0.86	-0.37	-0.32
Spending and % Limited English Proficiency	+0.20	-0.61	+0.01	-0.46
Spending and % Special Education	-0.13	-0.47	+0.42 ^{5*}	+0.65
<u>Spending and % White</u>	+0.68	+0.91	+0.41	+0.36
<u>Spending and % African American</u>	-0.66	-0.26	-0.11	-0.12
Spending and % Hispanic	+0.84	-0.36	+0.03	-0.38
<u>Spending and % Asian</u>	-0.88	-0.70	-0.30	-0.03
Spending and % Native American	+0.32	-0.19	-0.30*	+0.27
<u>Spending and % of students meeting selected math proficiency measure</u>	+0.58	+0.68	+0.38	+0.26

⁵ The two asterisked correlations are duly qualified on pages 40 and 47. These figures are affected by outlier spending and population conditions in a single site, rather than a trend across multiple sites.

High Schools (9-12)

HS Fig. 1: General Fund per Pupil Spending on Classroom Teachers by High School Site

In 2004-05, per pupil General Fund spending on teacher salaries at Henry High was 71% of the district average for high schools. Henry High spent only 57% of the amount spent at Southwest High.



HS Fig. 2: Source Data for Spending and Population Studies

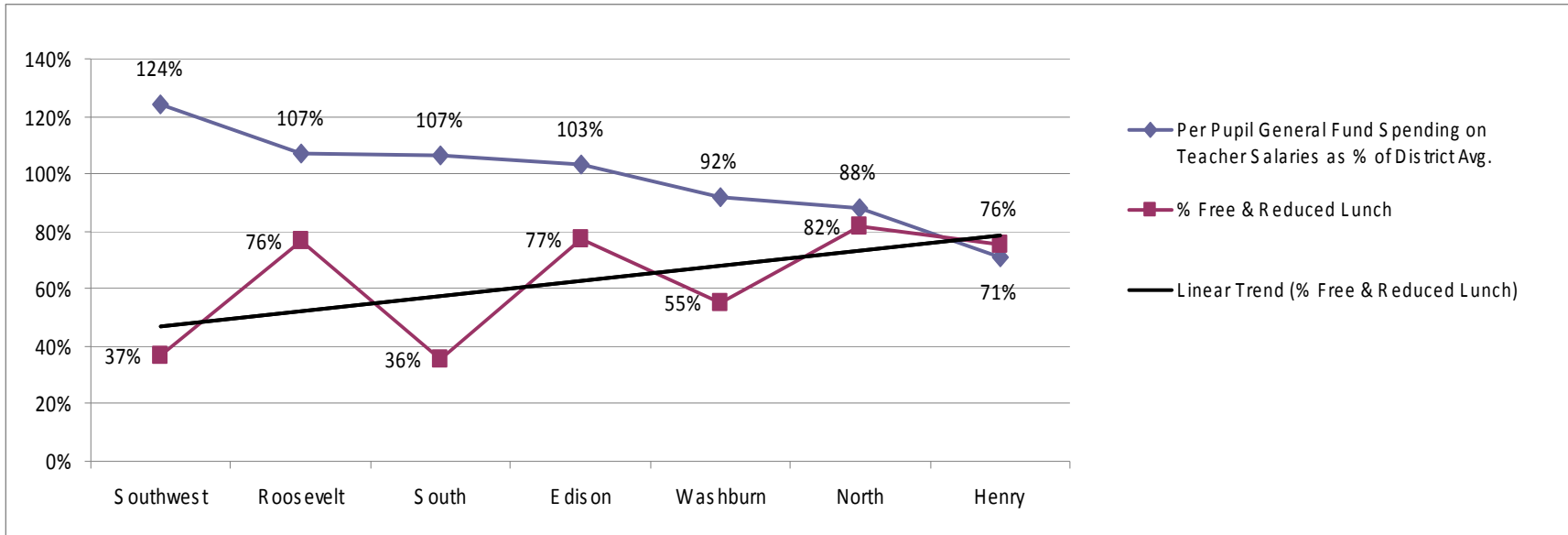
Spending and Population Information	Southwest	Roosevelt	South	Edison	Washburn	North	Henry
Per pupil General Fund spending on teacher salaries	\$2,043	\$1,767	\$1,754	\$1,698	\$1,514	\$1,448	\$1,169
Spending as % of MPS average for this grade configuration	124%	107%	107%	103%	92%	88%	71%
# of Students	1618	1345	1837	1196	1276	1134	1419
% Free & Reduced Lunch Eligible	37%	76%	36%	77%	55%	82%	76%
% Limited English Proficient	20%	30%	8%	30%	19%	16%	18%
% Special Education	11%	16%	9%	15%	11%	19%	11%
% White	56%	19%	56%	20%	33%	3%	16%
% African American	18%	50%	24%	51%	48%	72%	50%
% Hispanic	21%	15%	6%	14%	9%	2%	3%
% Asian	4%	12%	7%	11%	8%	21%	31%
% Native American	1%	4%	7%	3%	2%	1%	1%
% 11th Grade MCA ⁶ Math Proficiency	39%	7%	36%	4%	11%	6%	12%

⁶ The MCA or Minnesota Comprehensive Assessment is the State’s primary accountability measure under the No Child Left Behind Act. As of 2004-05, 3rd and 5th grade MCAs had been well-tested, while the high school and middle school MCAs were progressing in their development. Today, high school MCA-IIIs have a set of basic skills “GRAD” items imbedded. The test is now being used as the NCLB accountability measure and the high-stakes graduation test.

HS Fig. 3: General Fund Spending on High School Teachers Vs. Low Income Representation

Trend Statement: In 2004-05, when high school sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of low income students.

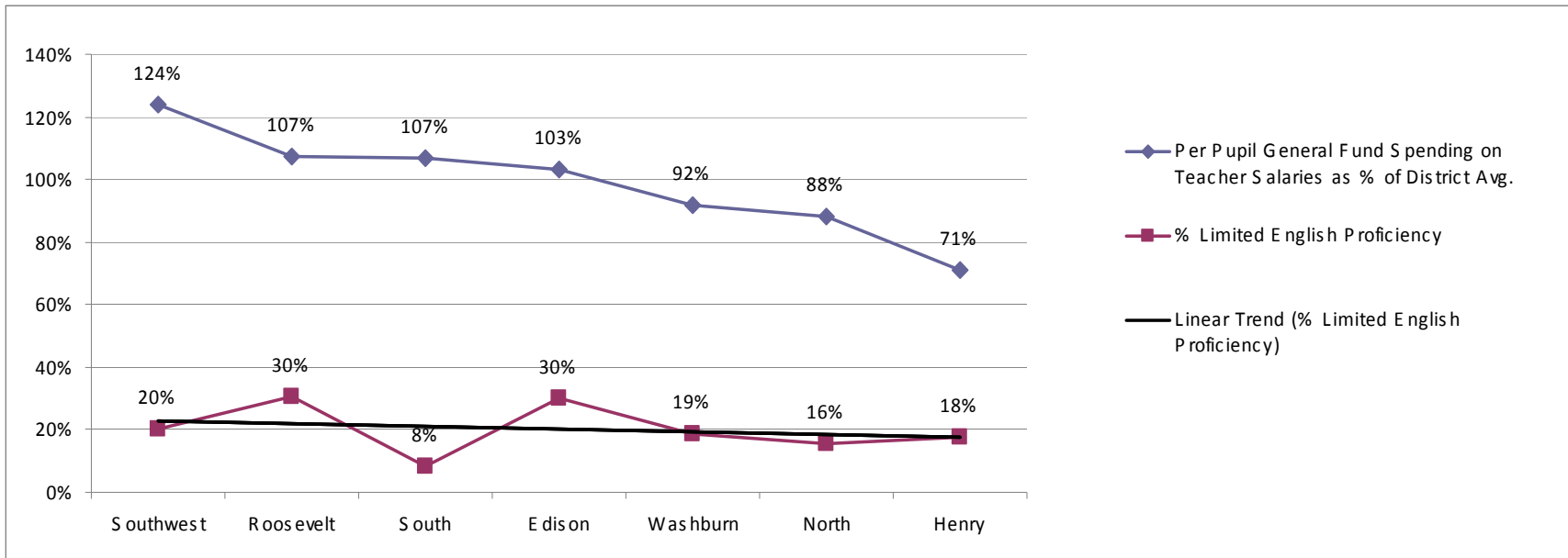
Pearson Correlation Coefficient: -0.59 There was a strong negative correlation between spending and representation of low income students.



HS Fig. 4: General Fund Spending on High School Teachers Vs. Limited English Proficiency Representation

Trend statement: In 2004-05, when high school sites had lower General Fund per pupil spending on teacher salaries, there was a trend toward lower representation of limited English proficient students.

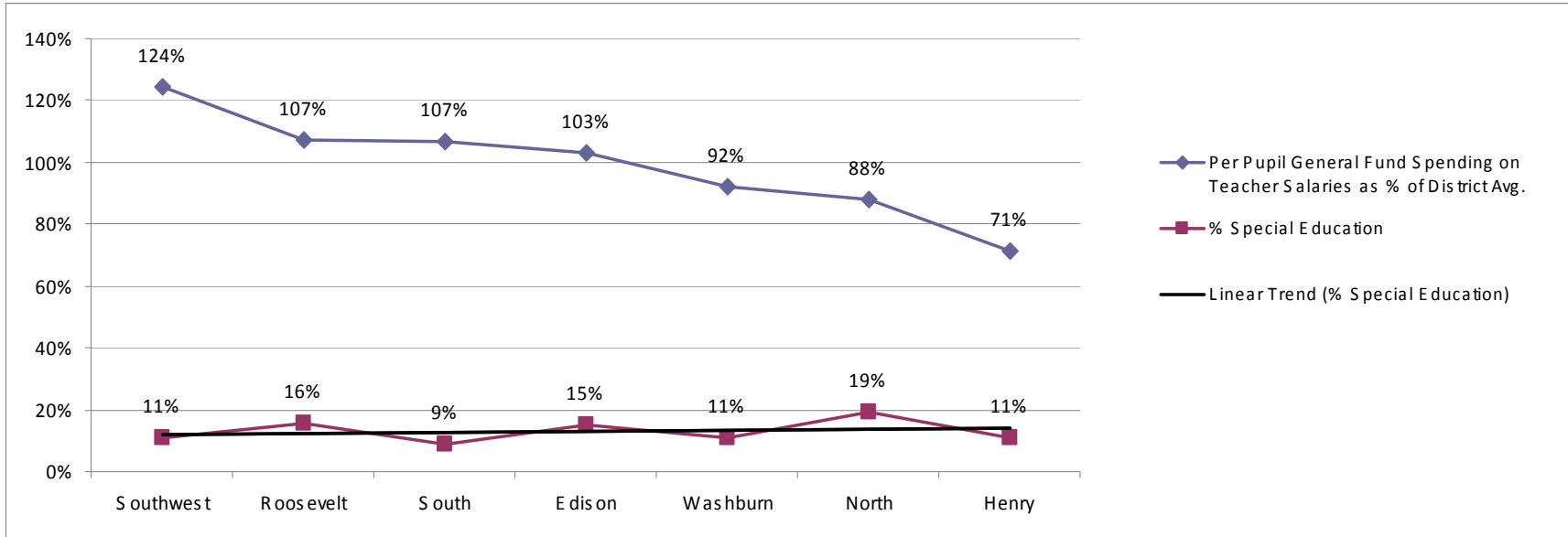
Pearson Correlation Coefficient: 0.20 There was a weak positive correlation between spending and representation of LEP students.



HS Fig. 5: General Fund Spending on High School Teachers Vs. Special Education Representation

Trend statement: In 2004-05, when high school sites had lower General Fund per pupil spending on teacher salaries, there was a trend toward higher representation of special education students.

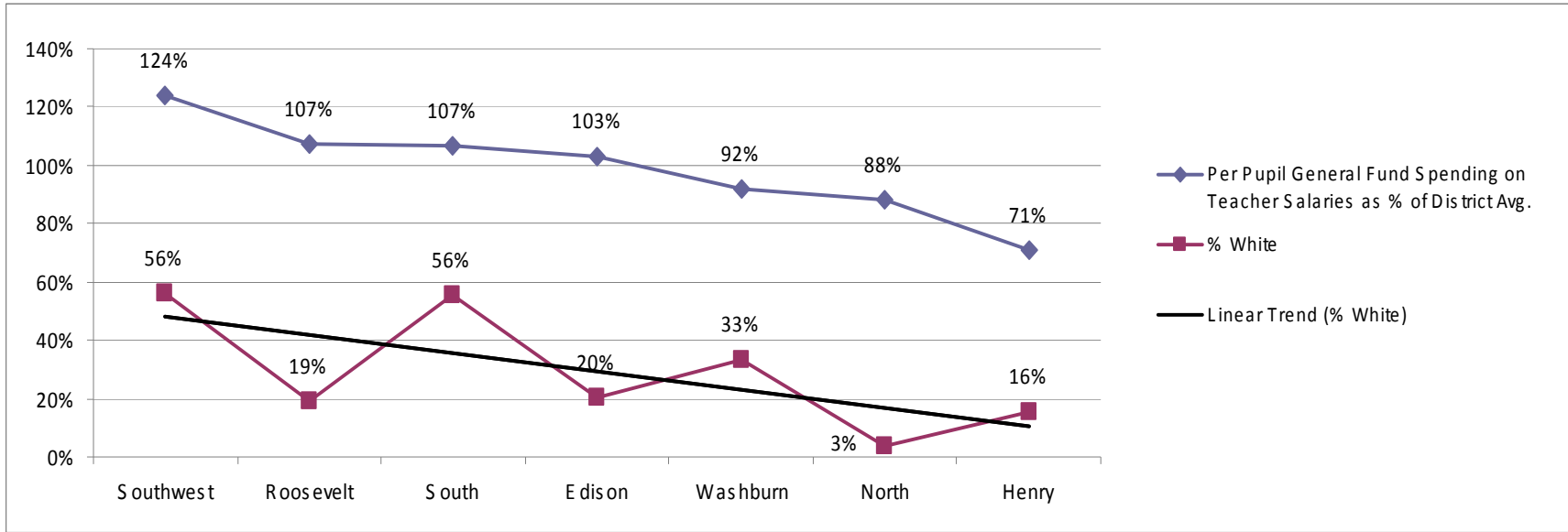
Pearson Correlation Coefficient: -0.13 There was a weak negative correlation between spending and representation of special education students.



HS Fig. 6: General Fund Spending on High School Teachers Vs. White Student Representation

Trend statement: In 2004-05, when high school sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **lower** representation of white students.

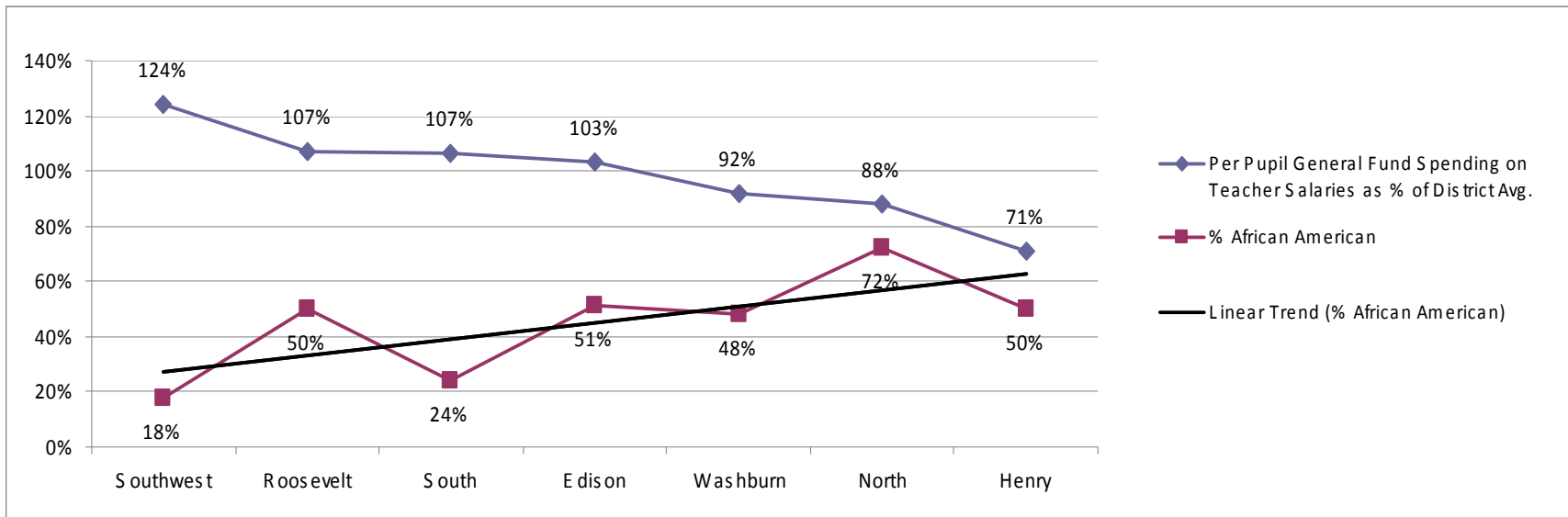
Pearson Correlation Coefficient: 0.68 There was a strong positive correlation between spending and representation of white students.



HS Fig. 7: General Fund Spending on High School Teachers Vs. African American Student Representation

Trend statement: In 2004-05, when high school sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of African American students.

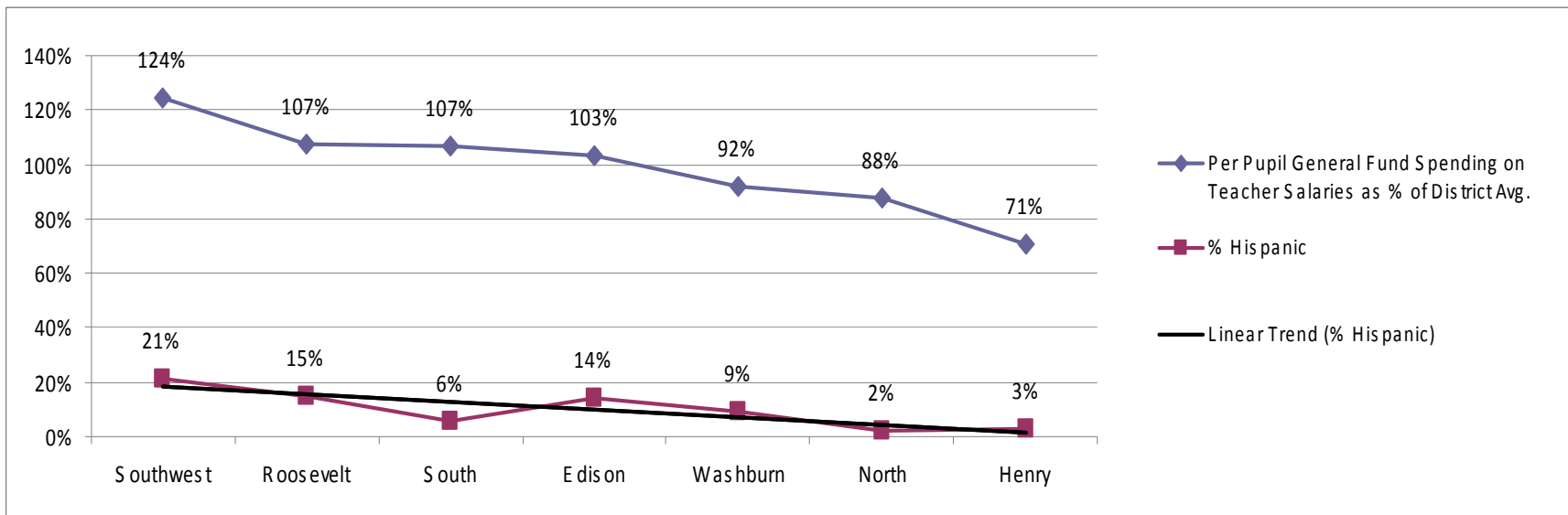
Pearson Correlation Coefficient: -0.66 There was a strong negative correlation between spending and representation of African American students.



HS Fig. 8: General Fund Spending on High School Teachers Vs. Hispanic Student Representation

Trend statement: In 2004-05, when high school sites had lower General Fund per pupil spending on teacher salaries, there was a trend toward lower representation of Hispanic students.

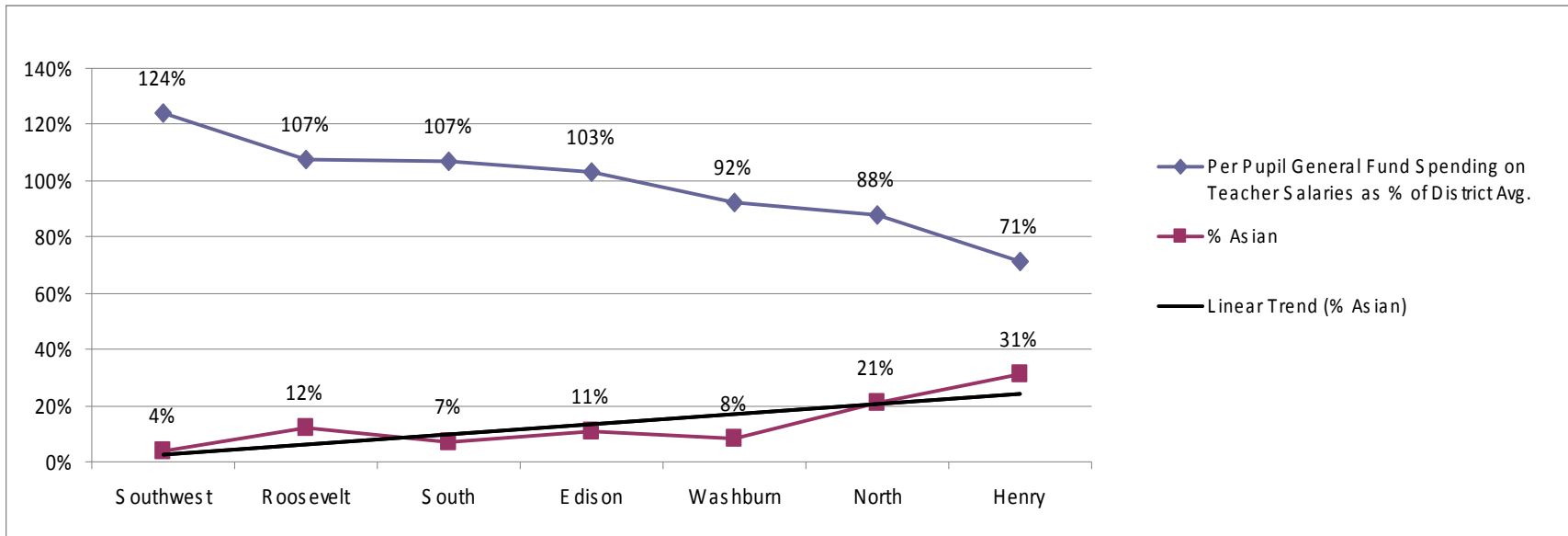
Pearson Correlation Coefficient: 0.84 There was a strong positive correlation between spending and representation of Hispanic students.



HS Fig. 9: General Fund Spending on High School Teachers Vs. Asian Student Representation

Trend statement: In 2004-05, when high school sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of Asian students.

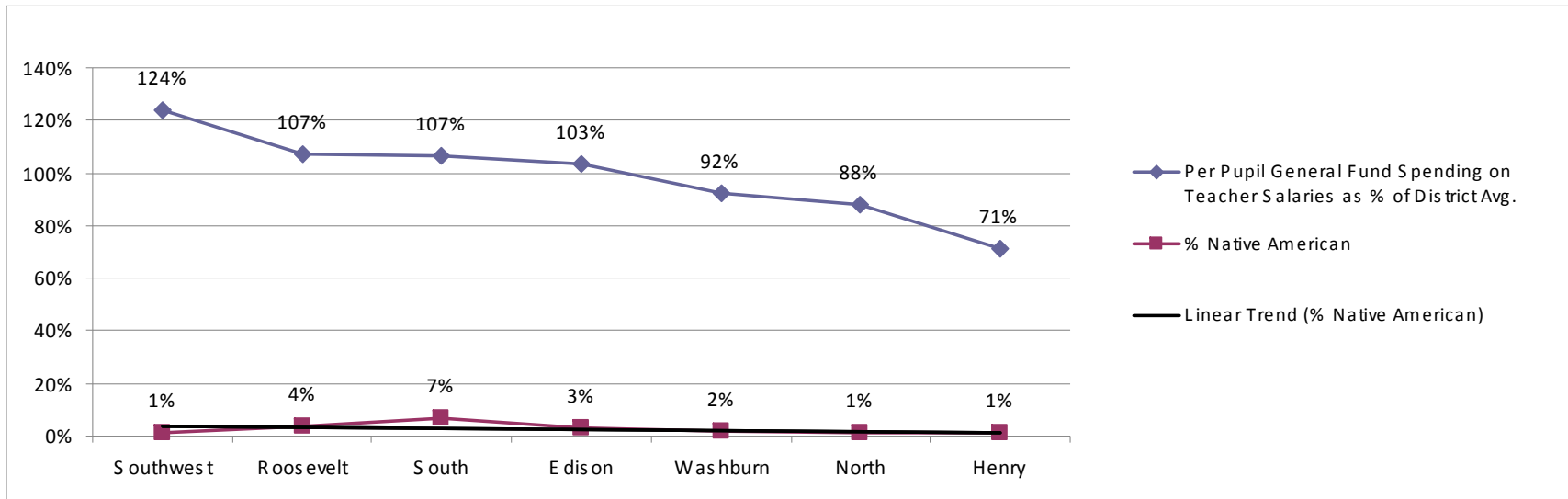
Pearson Correlation Coefficient: -0.88 There was a strong negative correlation between spending and representation of Asian students.



HS Fig. 10: General Fund Spending on High School Teachers Vs. Native American Student Representation

Trend statement: In 2004-05, when high school sites had lower General Fund per pupil spending on teacher salaries, there was a trend toward lower representation of Native American students.

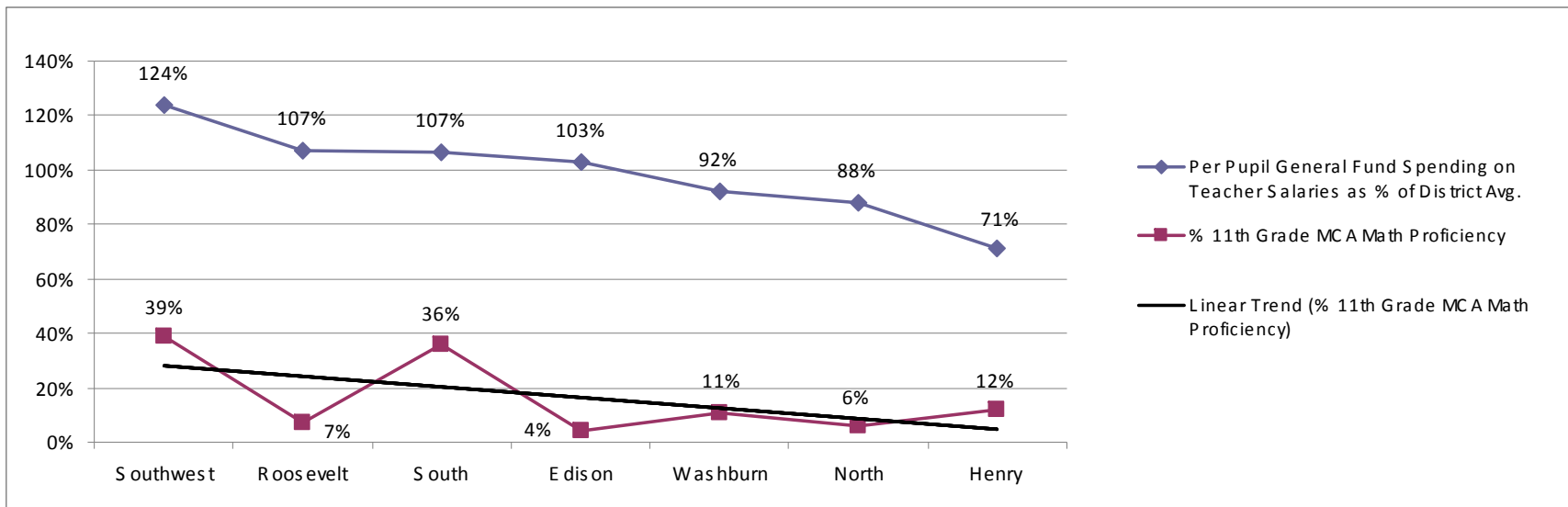
Pearson Correlation Coefficient: 0.32 There was a moderate positive correlation between spending and representation of Native American students.



HS Fig. 11: General Fund Spending on High School Teachers Vs. Math Performance Measure

Trend statement: In 2004-05, when high school sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **lower** representation of students meeting 11th grade math proficiency standards (measured by the MN Comprehensive Assessments).

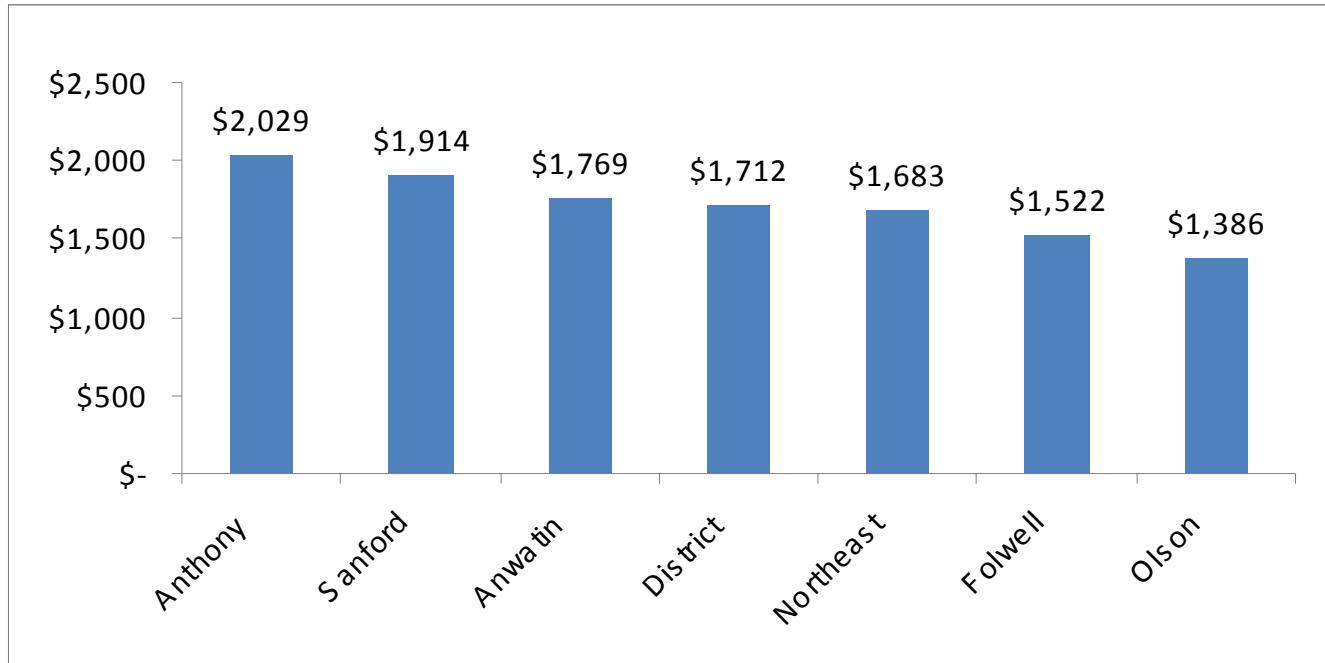
Pearson Correlation Coefficient: 0.58 There was a strong positive correlation between spending and representation of students meeting the selected math proficiency measure.



Middle Schools (6-8)

MS Fig. 1: General Fund per Pupil Spending on Classroom Teachers by Middle School Site

In 2004-05, per pupil General Fund spending on teacher salaries at Olson Middle School was 81% of the district average for 6-8 schools. Olson spent only 68% of the amount spent at Anthony Middle School.



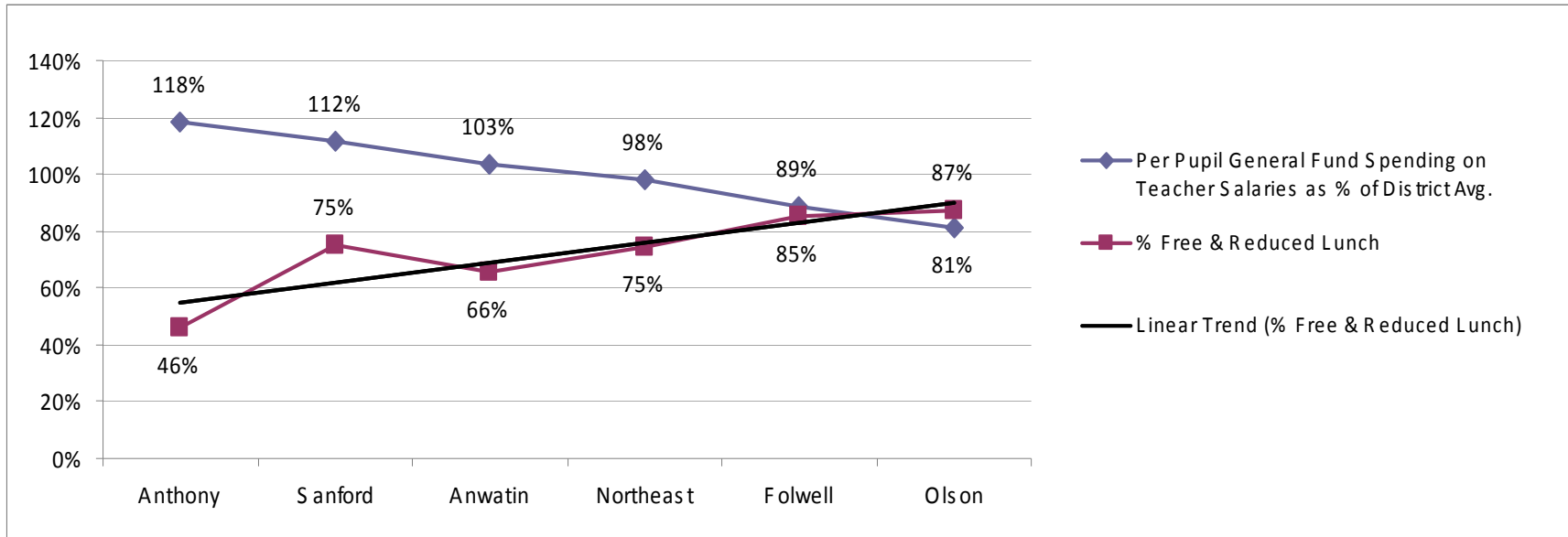
MS Fig. 2: Source Data for Spending and Population Studies

Spending and Population Information	Anthony	Sanford	Anwatin	Northeast	Folwell	Olson
Per pupil General Fund spending on teacher salaries	\$2,029	\$1,914	\$1,769	\$1,683	\$1,522	\$1,386
Spending as % of MPS average for this grade configuration	118%	112%	103%	98%	89%	81%
# of Students	602	382	643	463	527	583
% Free & Reduced Lunch Eligible	46%	75%	66%	75%	85%	87%
% Limited English Proficient	9%	21%	15%	14%	35%	21%
% Special Education	15%	22%	12%	18%	22%	21%
% White	50%	33%	30%	36%	12%	13%
% African American	38%	55%	46%	37%	40%	57%
% Hispanic	4%	3%	3%	16%	31%	2%
% Asian	4%	3%	19%	7%	9%	26%
% Native American	3%	5%	2%	5%	7%	3%
% 7 th Grade MCA Math Proficiency	45%	12%	24%	15%	13%	12%

MS Fig. 3: General Fund Spending on Middle School Teachers Vs. Low Income Representation

Trend statement: In 2004-05, when middle school sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of low income students.

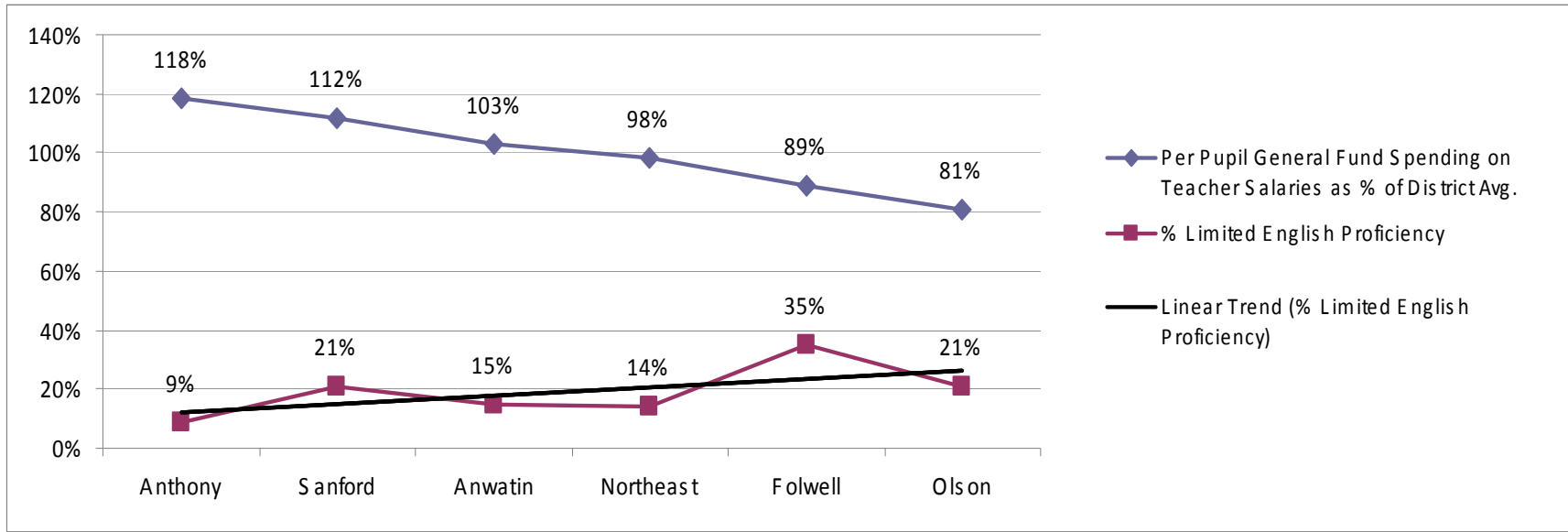
Pearson Correlation Coefficient: -0.86 There was a strong negative correlation between spending and representation of low income students.



MS Fig. 4: General Fund Spending on Middle School Teachers Vs. Limited English Proficiency Representation

Trend statement: In 2004-05, when middle school sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of Students with limited English proficiency.

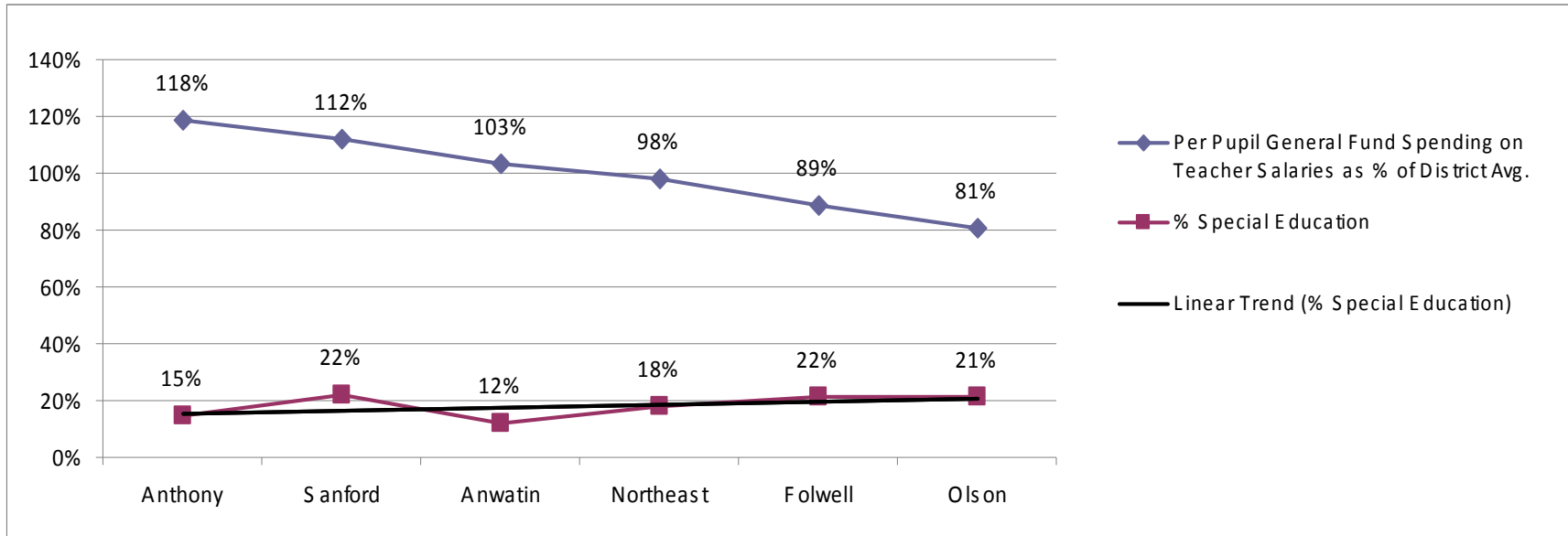
Pearson Correlation Coefficient: -0.61 There was a strong negative correlation between spending and representation of LEP students.



MS Fig. 5: General Fund Spending on Middle School Teachers Vs. Special Education Representation

Trend statement: In 2004-05, when middle school sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of special education students.

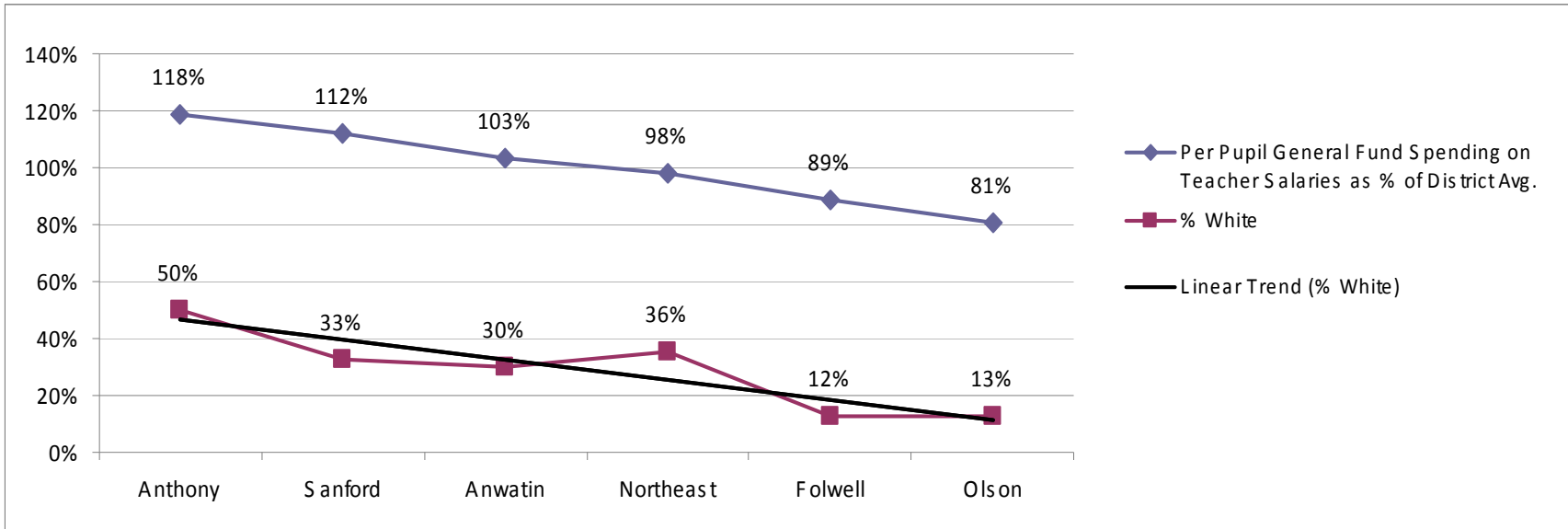
Pearson Correlation Coefficient: -0.47 There was a moderate negative correlation between spending and representation of special education students.



MS Fig. 6: General Fund Spending on Middle School Teachers Vs. White Student Representation

Trend statement: In 2004-05, when middle school sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **lower** representation of white students.

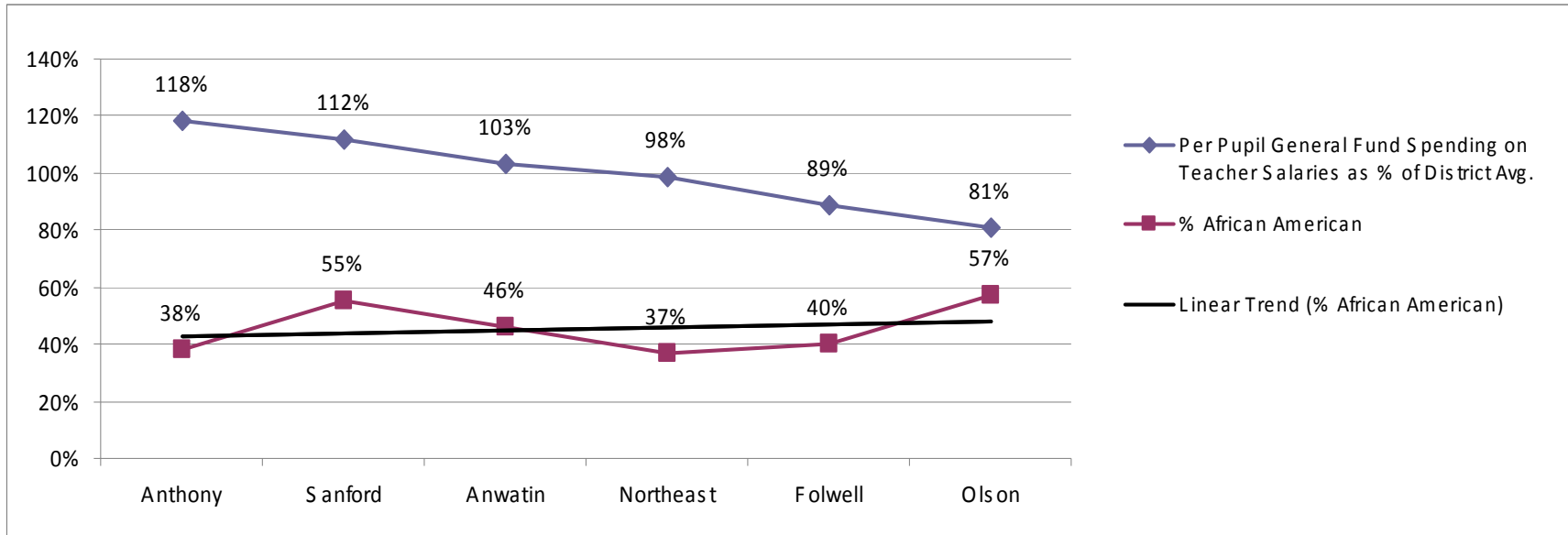
Pearson Correlation Coefficient: 0.91 There was a strong positive correlation between spending and representation of white students.



MS Fig. 7: General Fund Spending on Middle School Teachers Vs. African American Student Representation

Trend statement: In 2004-05, when middle school sites had lower General Fund per pupil spending on teacher salaries, there was a trend toward higher representation of African American students.

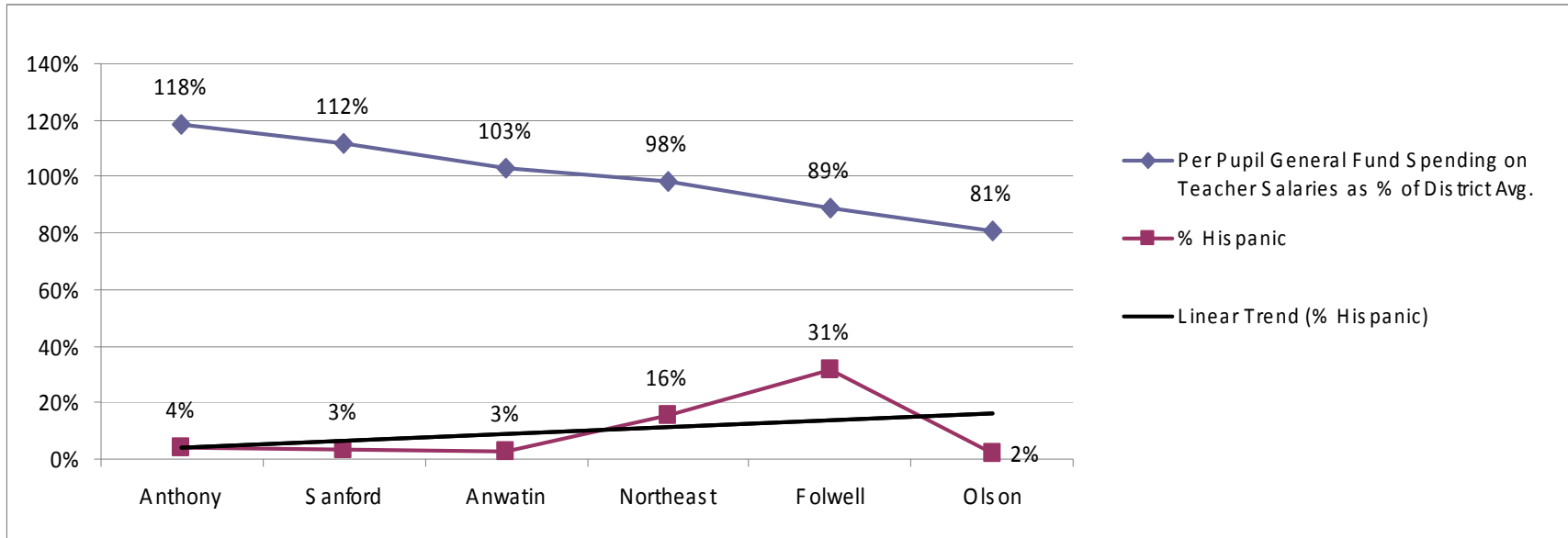
Pearson Correlation Coefficient: -0.26 There was a weak negative correlation between spending and representation of African American students.



MS Fig. 8: General Fund Spending on Middle School Teachers Vs. Hispanic Student Representation

Trend statement: In 2004-05, when middle school sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of Hispanic students.

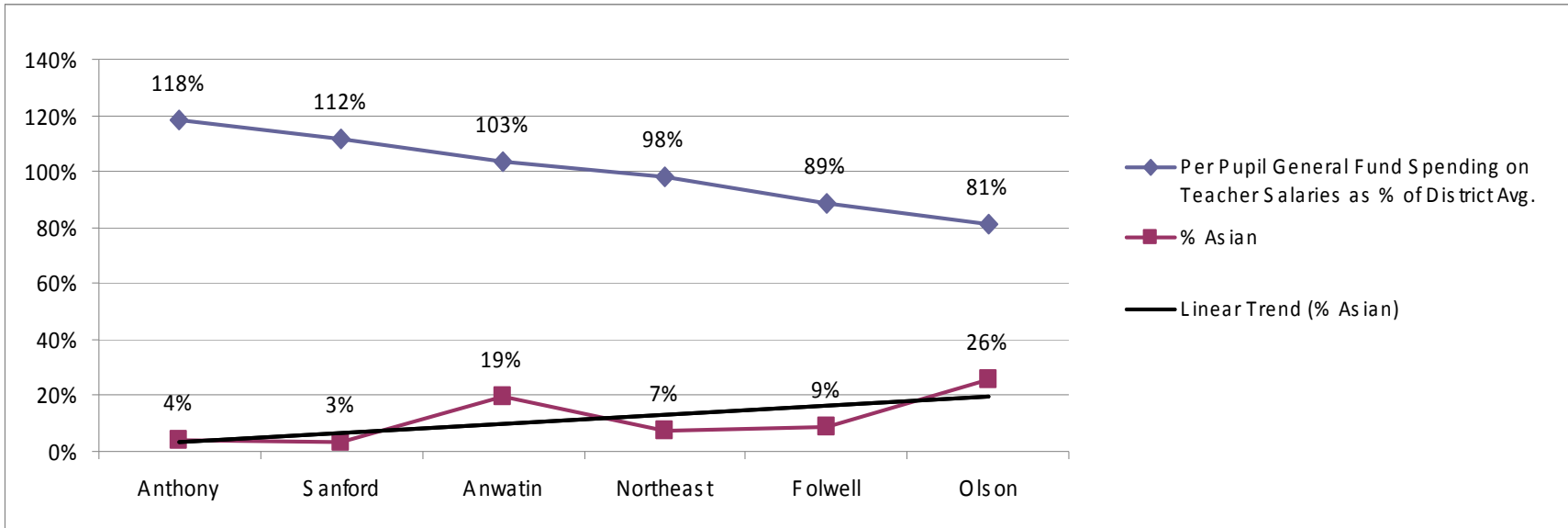
Pearson Correlation Coefficient: -0.36 There was a moderate negative correlation between spending and representation of Hispanic students.



MS Fig. 9: General Fund Spending on Middle School Teachers Vs. Asian Student Representation

Trend statement: In 2004-05, when middle school sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of Asian students.

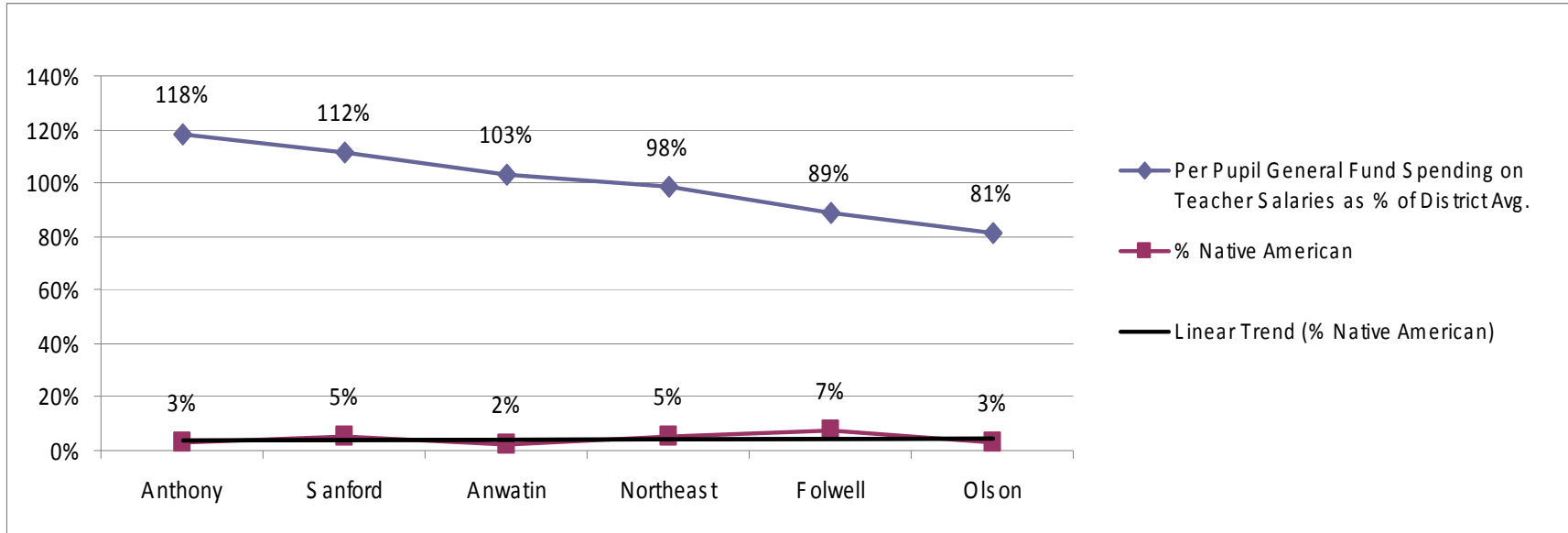
Pearson Correlation Coefficient: -0.70 There was a strong negative correlation between spending and representation of Asian students.



MS Fig. 10: General Fund Spending on Middle School Teachers Vs. Native American Student Representation

Trend statement: In 2004-05, when middle school sites had lower General Fund per pupil spending on teacher salaries, there was a trend toward higher representation of Native American students.

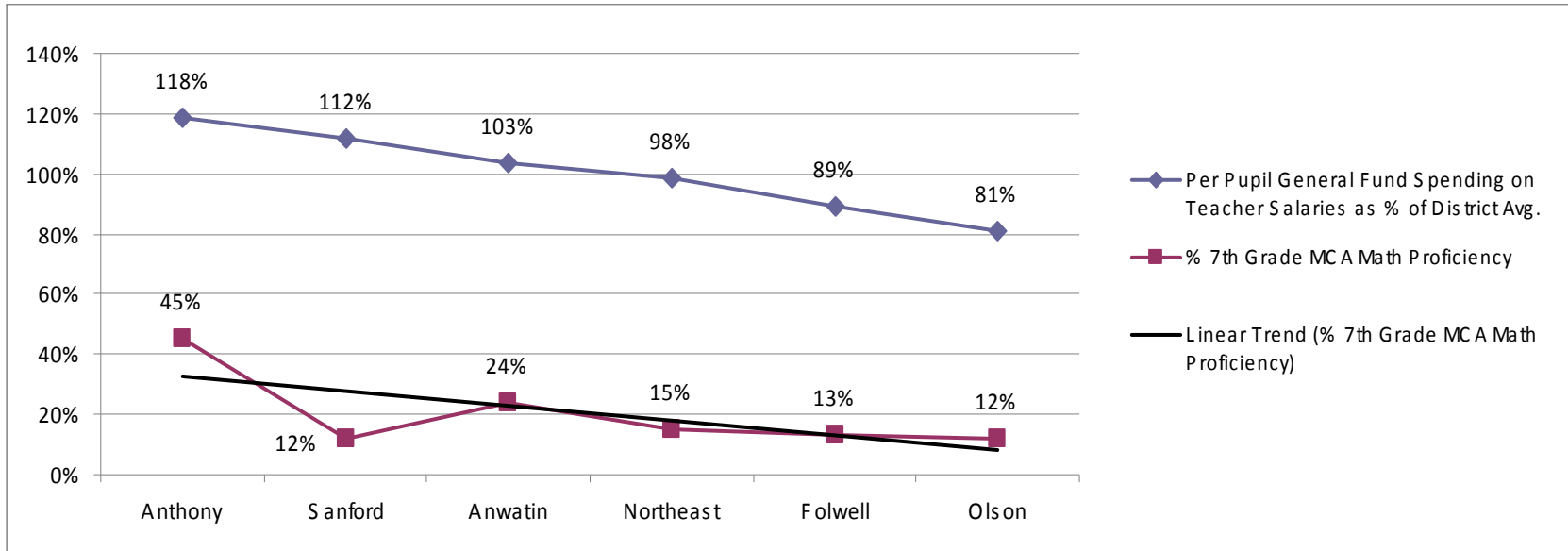
Pearson Correlation Coefficient: -0.19 There was a weak negative correlation between spending and representation of Native American students.



MS Fig. 11: General Fund Spending on Middle School Teachers Vs. Math Performance Measure

Trend statement: In 2004-05, when middle school sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **lower** representation of students demonstrating proficiency on the 7th grade math MCA.

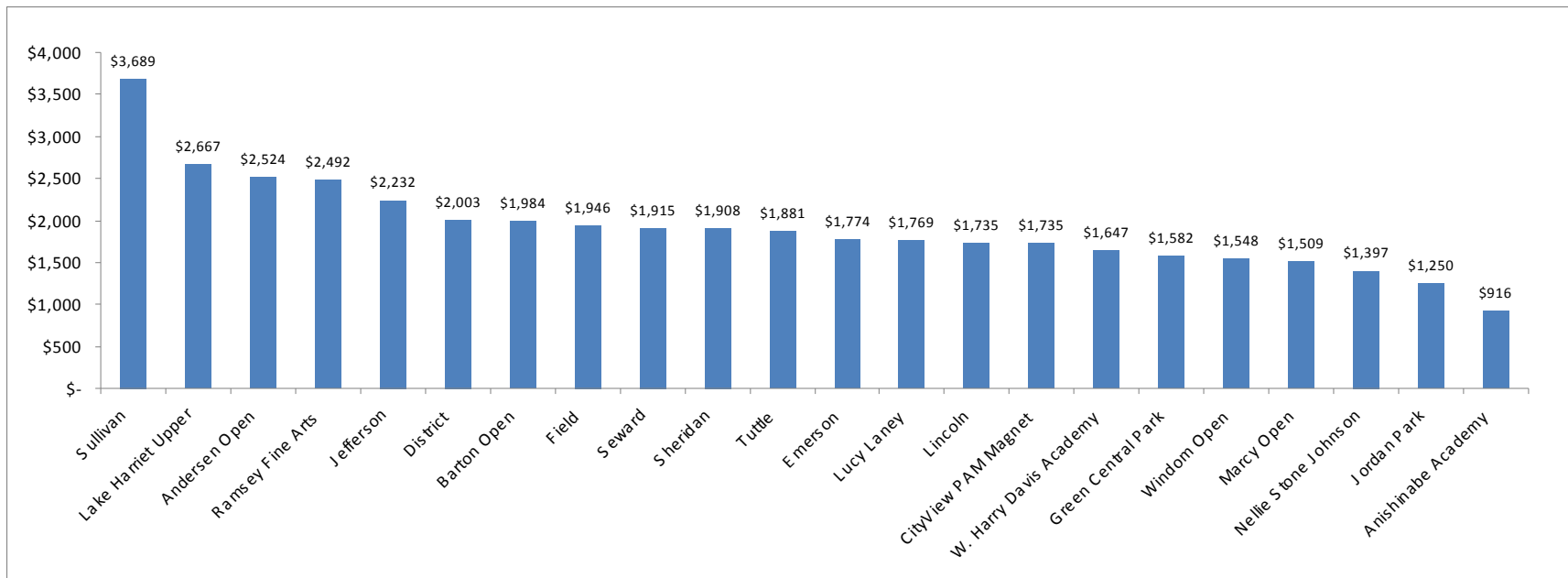
Pearson Correlation Coefficient: 0.68 There was a strong positive correlation between spending and representation of students meeting the selected math proficiency measure.



K-8 Schools

K-8 Fig. 1: General Fund per Pupil Spending on Classroom Teachers by K-8 School Site

In 2004-05, per pupil General Fund spending on teacher salaries at Anishinabe Academy was only 46% of the district average for K-8 schools. Anishinabe spent only 25% of the amount spent at Sullivan. Since Sullivan had unusually high spending, it may be more informative to note that Anishinabe still only spent 34% of the per pupil amount calculated for the second-highest spending school, Lake Harriet Upper.



NOTES:

- Spending at Sullivan is boosted by its specialized program for the hearing impaired. However, many sites operate costly special education programs. Moreover, the spending and population studies provide for analysis according to special education representation.
- Lake Harriet Upper served grades 3-8, Field served grades 4-8 and Anishinabe served grades K-10.

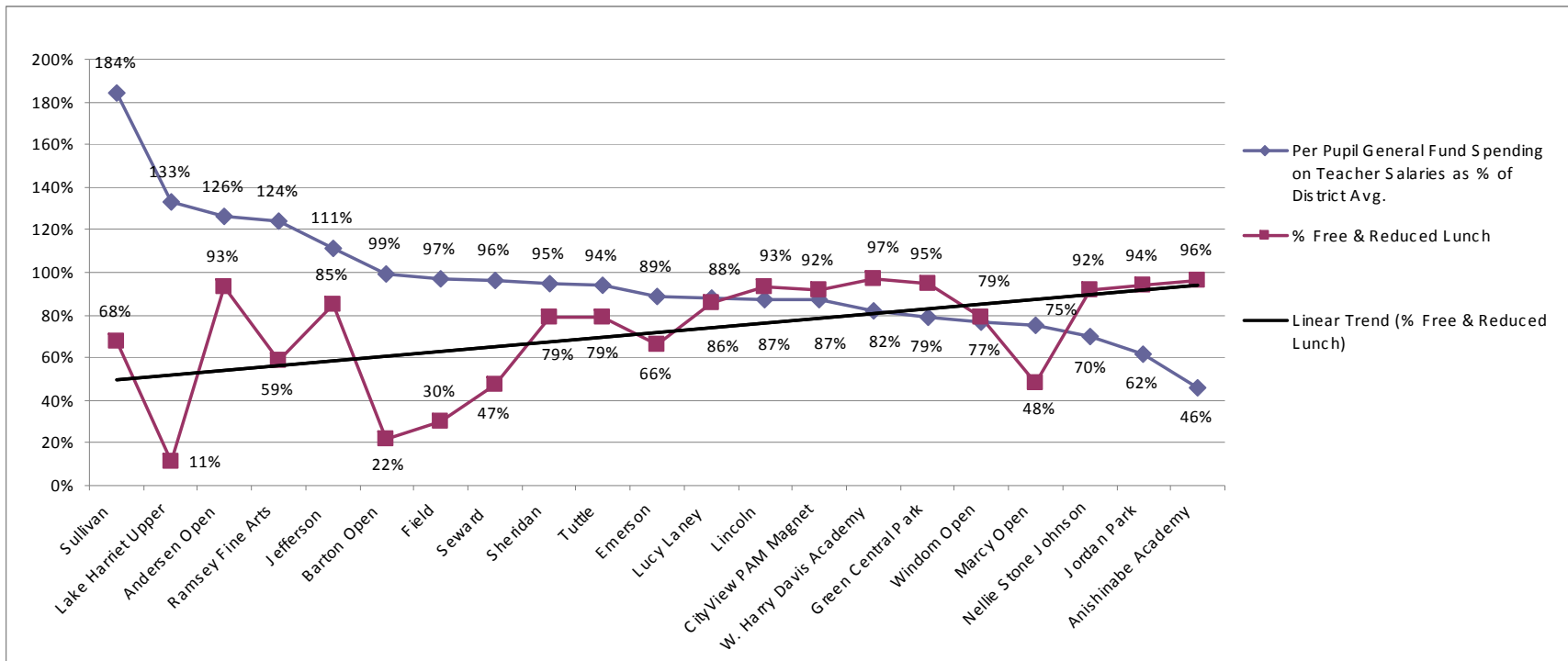
K-8 Fig. 2: Source Data for Spending and Population Studies

Spending and Population Information	Sullivan	Lake Harriet Upper	Andersen Open	Ramsey Fine Arts	Jefferson	Barton Open	Field	Seward	Sheridan	Tuttle	Emerson	Lucy Laney	Lincoln	CityView PAM Magnet	W. Harry Davis Academy	Green Central Park	Windom Open	Marcy Open	Nellie Stone Johnson	Jordan Park	Anishinabe Academy
Per pupil General Fund spending on teacher salaries	\$3,689	\$2,667	\$2,524	\$2,492	\$2,232	\$1,984	\$1,946	\$1,915	\$1,908	\$1,881	\$1,774	\$1,769	\$1,735	\$1,735	\$1,647	\$1,582	\$1,548	\$1,509	\$1,397	\$1,250	\$916
Spending as % of MPS avg. for this grade configuration	184%	133%	126%	124%	111%	99%	97%	96%	95%	94%	89%	88%	87%	87%	82%	79%	77%	75%	70%	62%	46%
# of Students	750	573	596	882	575	668	481	744	817	239	549	603	600	639	394	560	326	616	491	448	223
% Free & Red. Lunch Eligible	68%	11%	93%	59%	85%	22%	30%	47%	79%	79%	66%	86%	93%	92%	97%	95%	79%	48%	92%	94%	96%
% Limited Engl. Prof.	24%	2%	52%	26%	42%	10%	8%	17%	23%	24%	41%	23%	23%	18%	37%	54%	42%	18%	32%	33%	0%
% Special Ed.	17%	13%	17%	12%	15%	9%	9%	10%	15%	12%	6%	12%	13%	17%	15%	10%	9%	8%	13%	12%	12%
% White	31%	82%	6%	30%	12%	55%	56%	49%	19%	27%	18%	5%	2%	4%	1%	3%	13%	50%	3%	3%	2%
% Afr. Am.	49%	9%	25%	32%	31%	26%	27%	28%	46%	52%	17%	66%	71%	67%	54%	37%	38%	31%	59%	60%	6%
% Hispanic	4%	2%	61%	29%	51%	5%	6%	5%	3%	8%	61%	1%	1%	1%	37%	55%	40%	6%	22%	1%	6%
% Asian	4%	6%	1%	4%	2%	10%	9%	14%	29%	10%	0%	26%	25%	25%	6%	3%	8%	9%	15%	35%	0%
% Native Am.	11%	1%	7%	4%	3%	3%	2%	4%	3%	4%	4%	3%	1%	3%	1%	2%	2%	4%	1%	2%	87%
% 5 th Grade MCA Math Prof.	42%	88%	38%	43%	33%	74%	78%	52%	41%	32%	51%	40%	35%	25%	36%	35%	32%	53%	53%	22%	6%

K-8 Fig. 3: General Fund Spending on K-8 Teachers Vs. Low Income Representation

Trend statement: In 2004-05, when K-8 sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of low income students.

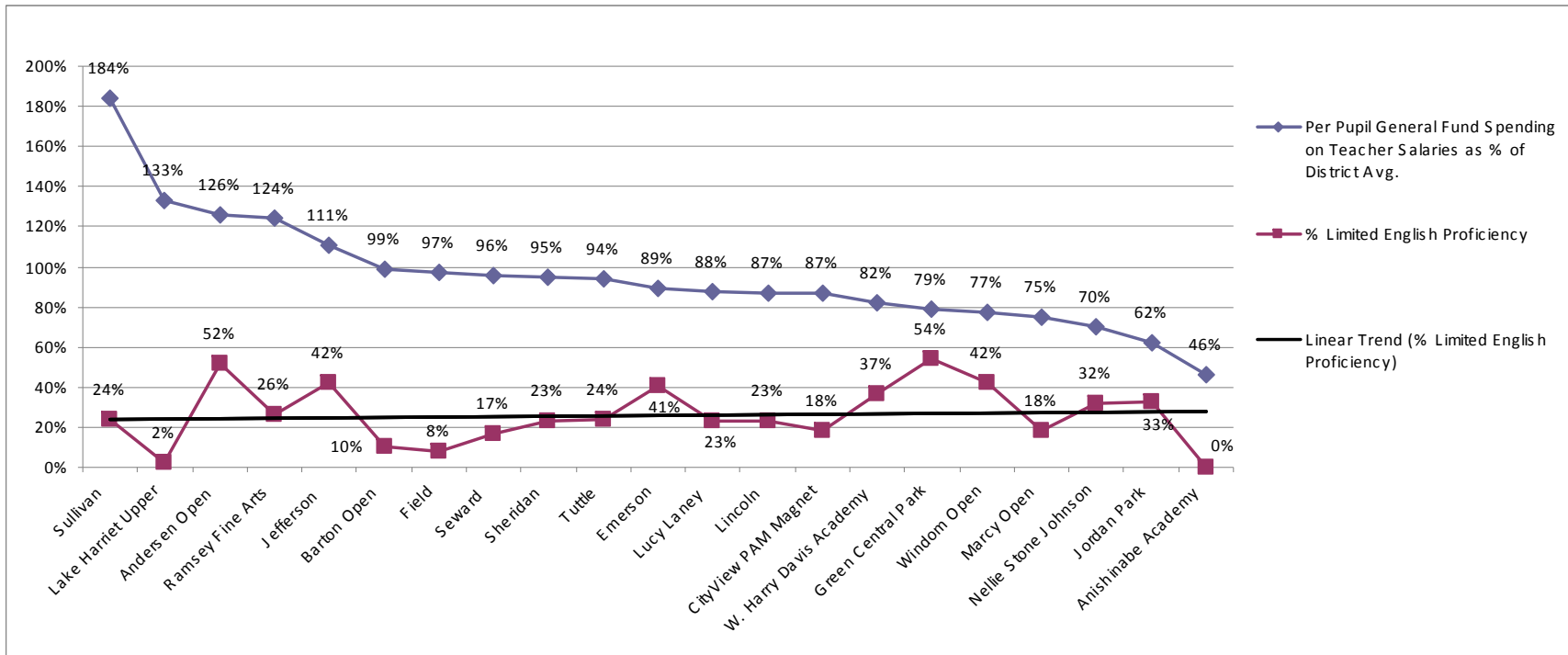
Pearson Correlation Coefficient: -0.37 There was a moderate negative correlation between spending and representation of low income students.



K-8 Fig. 4: General Fund Spending on K-8 Teachers Vs. Limited English Proficiency Representation

Trend statement: Undetermined for 2004-05.

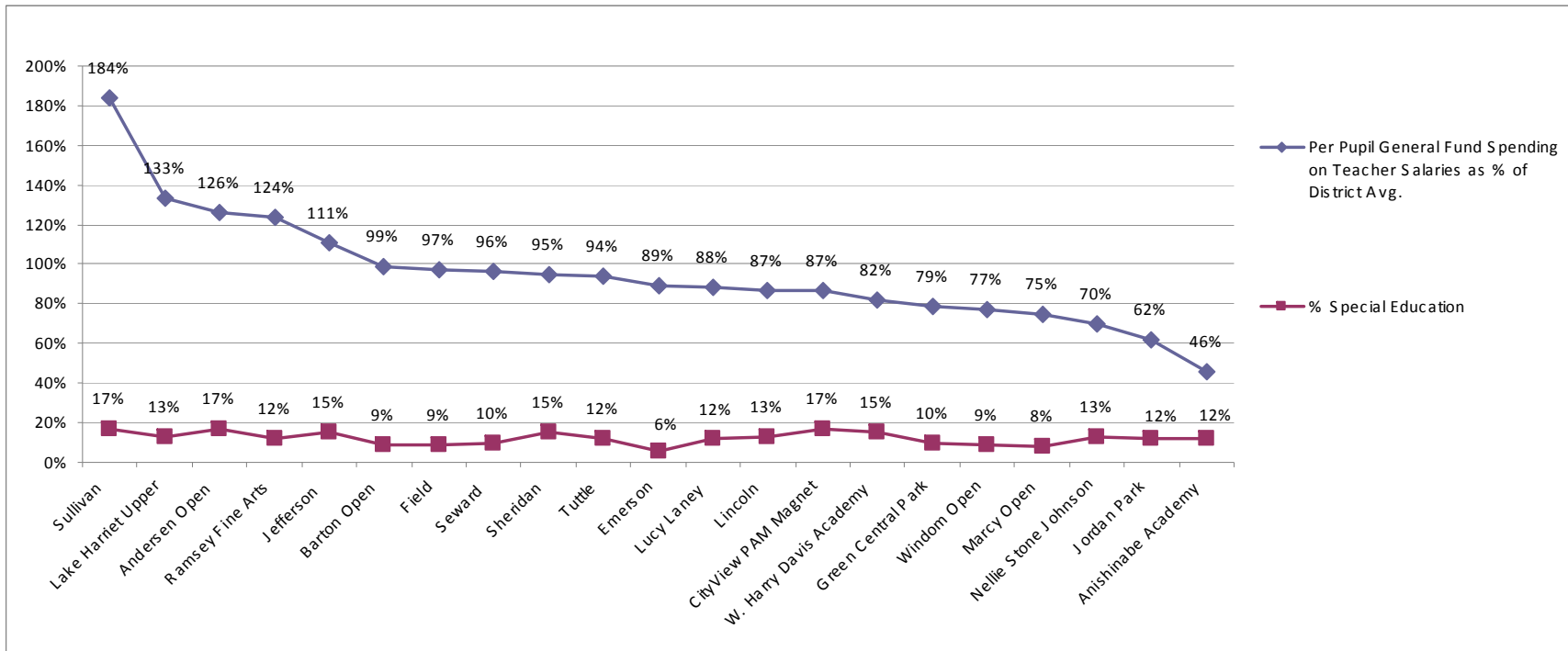
Pearson Correlation Coefficient: 0.01 There was a very weak positive correlation between spending at K-8 sites and representation of LEP students.



K-8 Fig. 5: General Fund Spending on K-8 Teachers Vs. Special Education Representation

Trend statement: Undetermined for 2004-05 due to outlier spending levels at Sullivan.

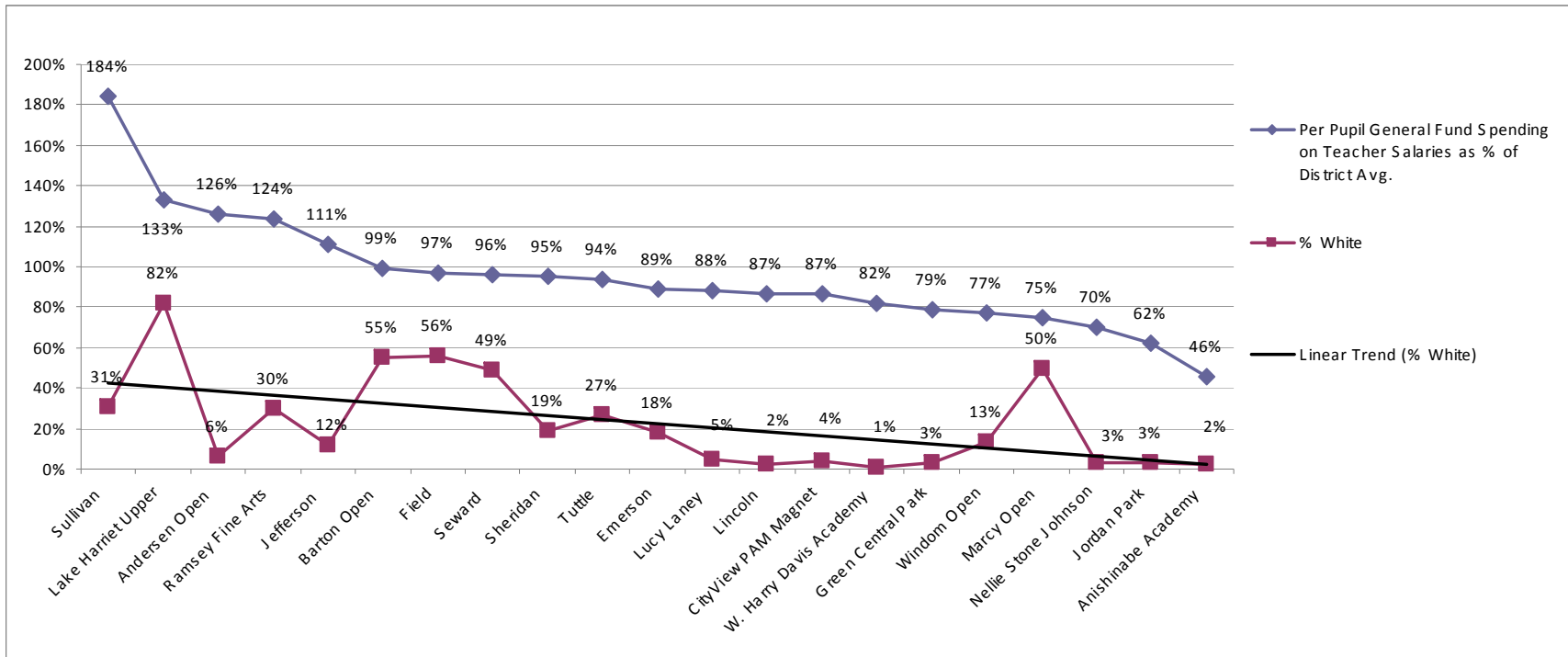
Pearson Correlation Coefficient: 0.42 The positive correlation between spending and representation of special education students was driven up by one school with unusually high spending and a relatively high representation of special education students. This differs from a correlation that is determined by high representation of special education students across several high-spending schools.



K-8 Fig. 6: General Fund Spending on K-8 Teachers Vs. White Student Representation

Trend statement: In 2004-05, when K-8 sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **lower** representation of white students.

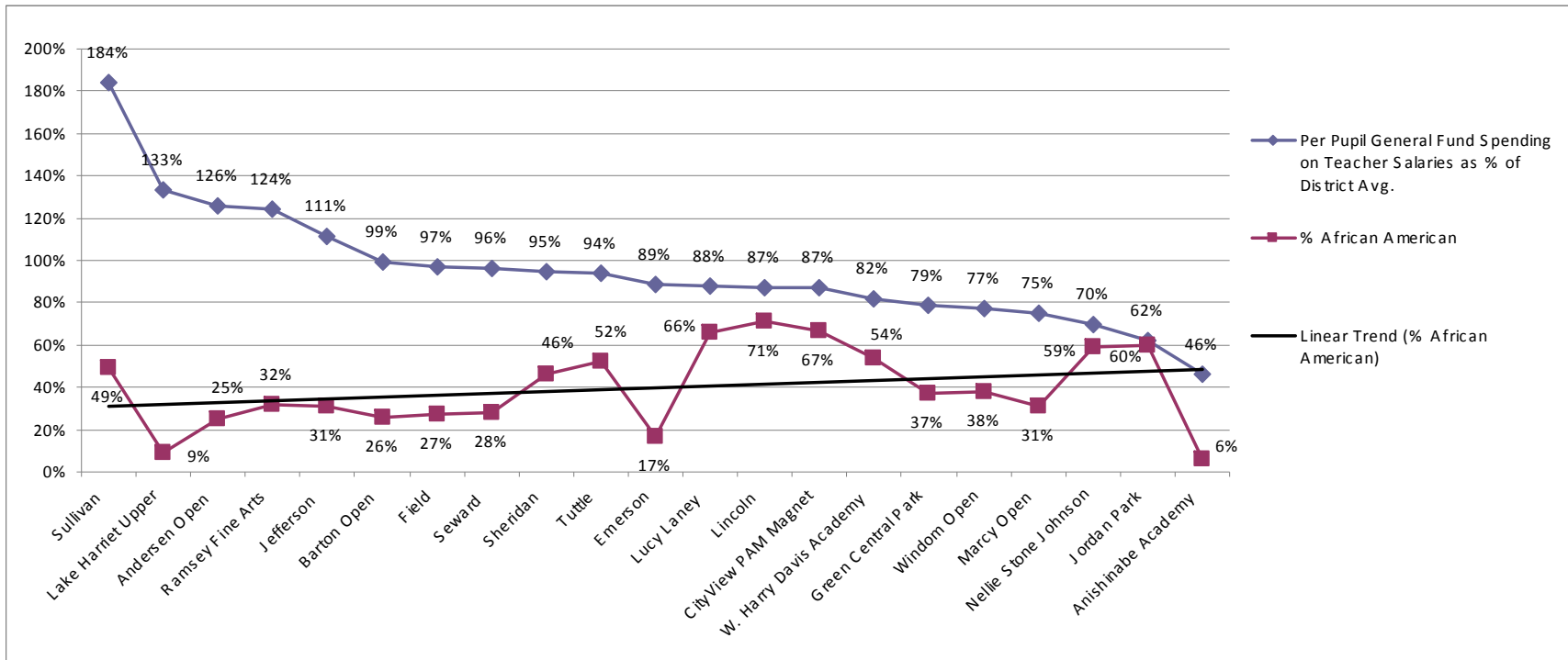
Pearson Correlation Coefficient: 0.41 There was a moderate positive correlation between spending and representation of white students.



K-8 Fig. 7: General Fund Spending on K-8 Teachers Vs. African American Student Representation

Trend statement: In 2004-05, when K-8 sites had lower General Fund per pupil spending on teacher salaries, there was a trend toward higher representation of African American students.

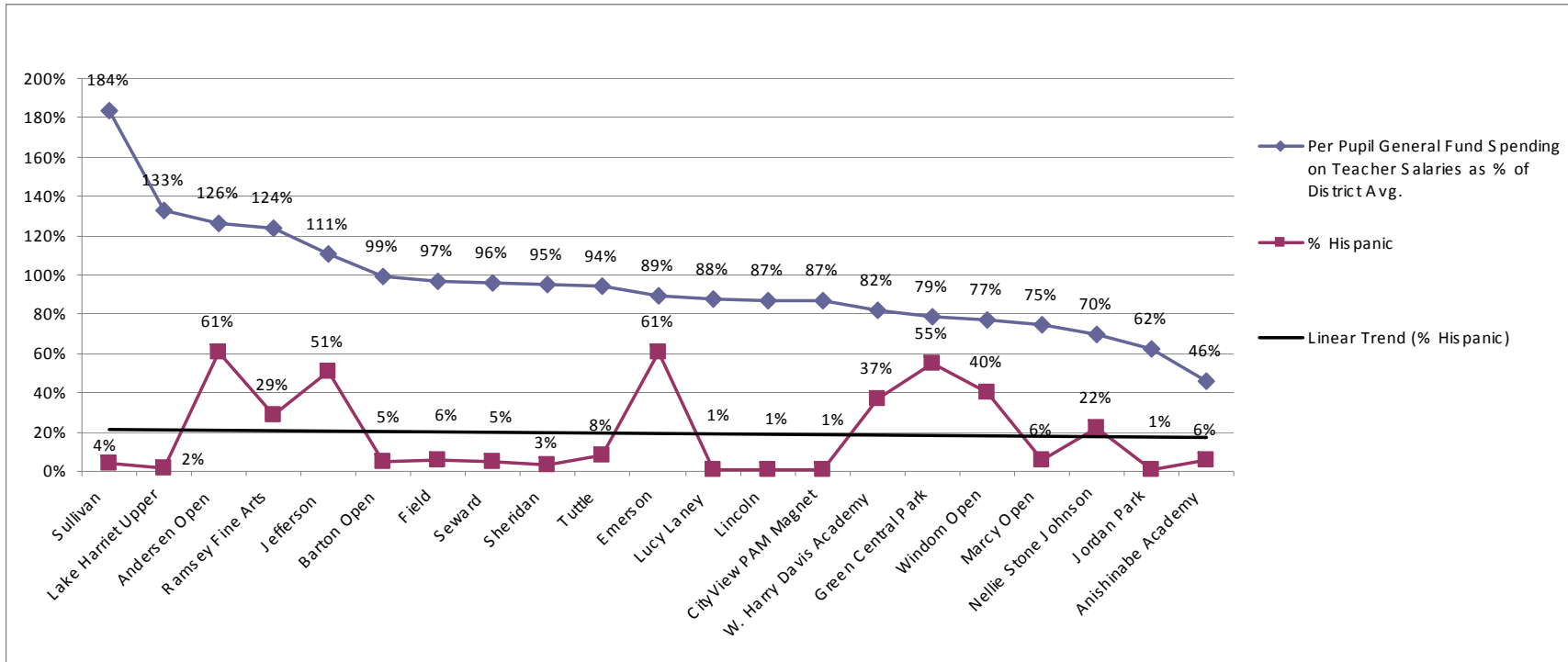
Pearson Correlation Coefficient: -0.11 There was a weak negative correlation between spending and representation of African American students.



K-8 Fig. 8: General Fund Spending on K-8 Teachers Vs. Hispanic Student Representation

Trend statement: Undetermined for 2004-05

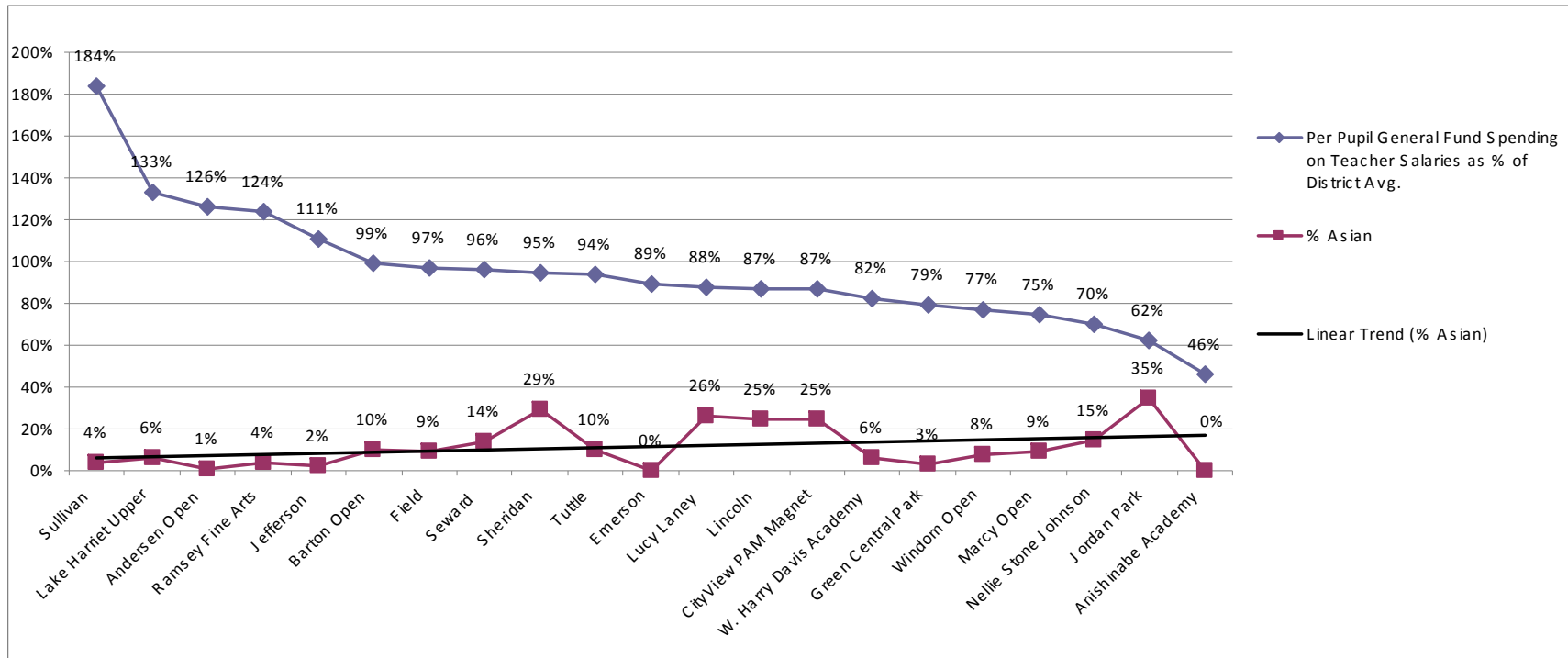
Pearson Correlation Coefficient: 0.03 There was a very weak positive correlation between K-8 spending and representation of Hispanic students.



K-8 Fig. 9: General Fund Spending on K-8 Teachers Vs. Asian Student Representation

Trend statement: In 2004-05, when K-8 sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of Asian students.

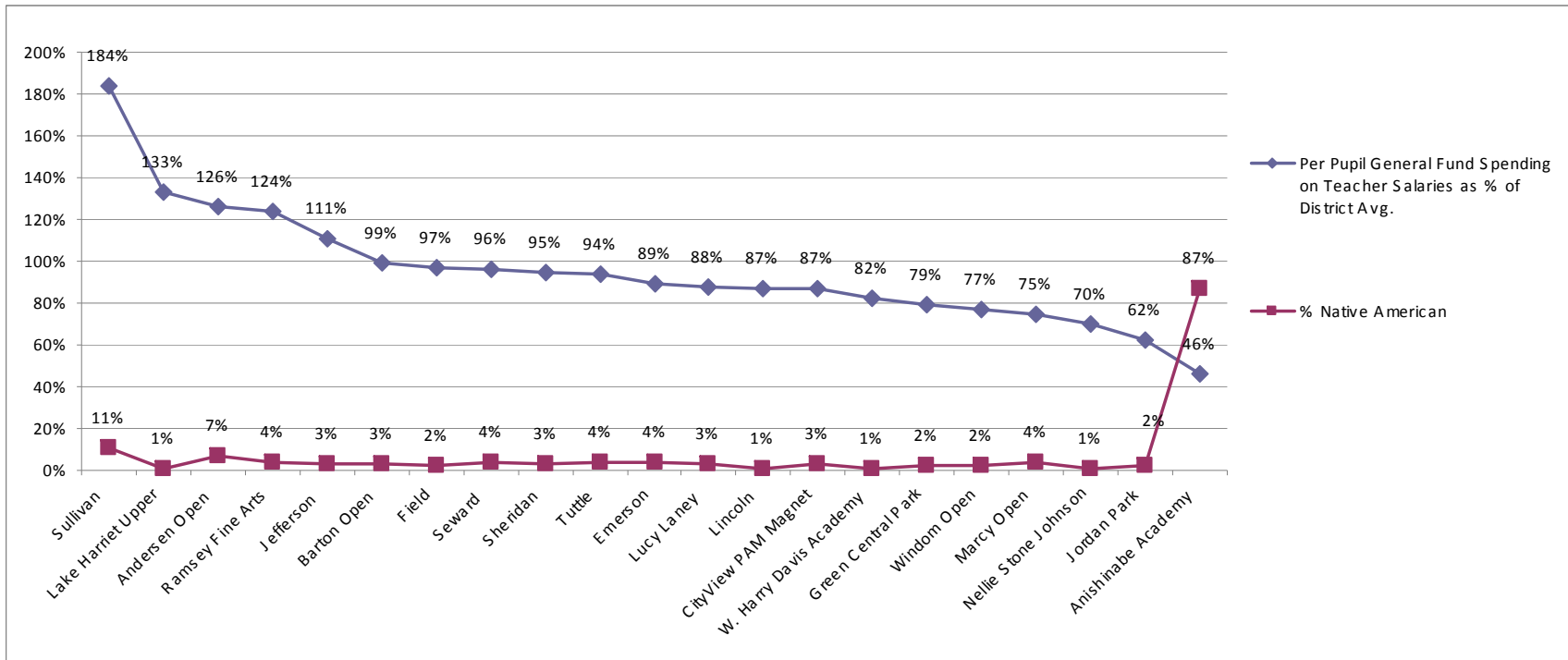
Pearson Correlation Coefficient: -0.30 There was a moderate negative correlation between spending and representation of Asian students.



K-8 Fig. 10: General Fund Spending on K-8 Teachers Vs. Native American Student Representation

Trend statement: Undetermined for 2004-05 due to outlier spending and population levels at Anishinabe Academy.

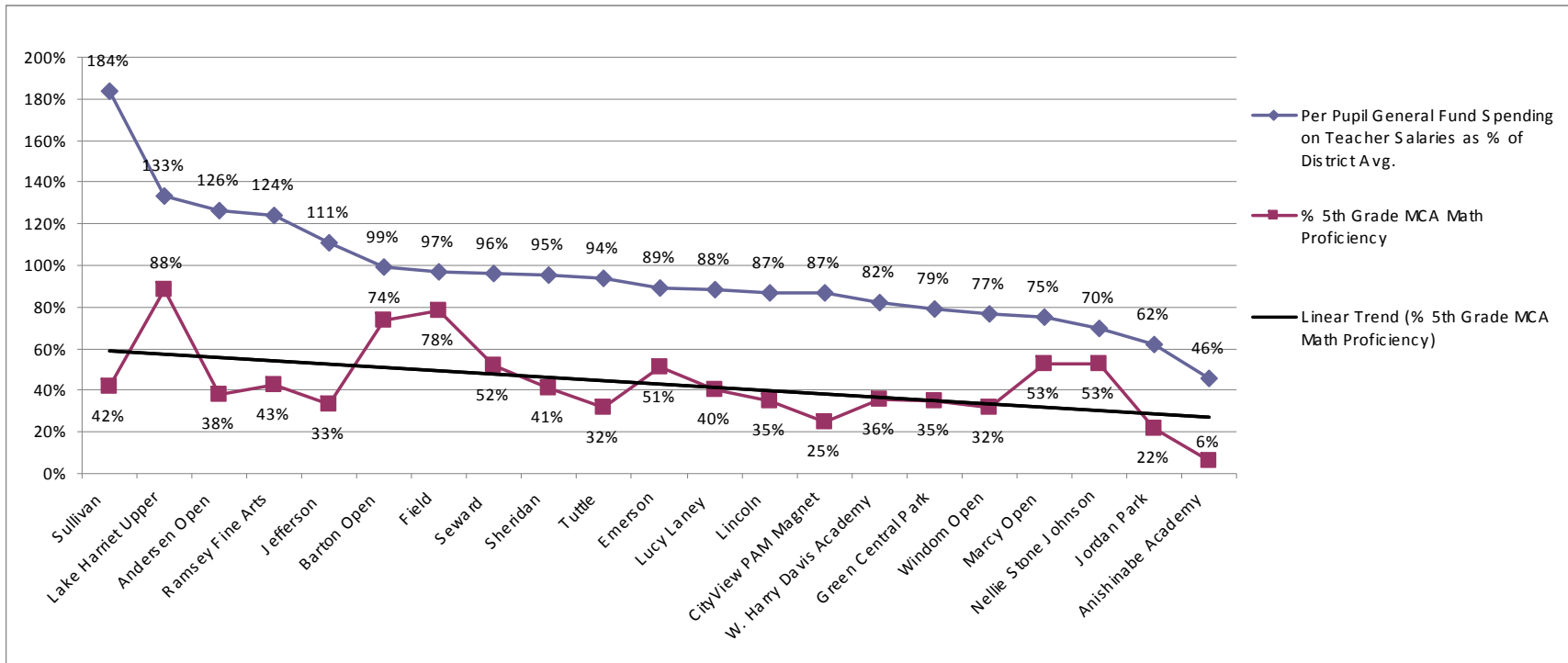
Pearson Correlation Coefficient: -0.30 The negative correlation between spending and representation of Native American students was driven by one school with low spending and high representation of Native American students. This differs from a correlation determined by relatively high representation of Native American students across several low-spending schools.



K-8 Fig. 11: General Fund Spending on K-8 Teachers Vs. Math Performance Measure

Trend statement: In 2004-05, when K-8 sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **lower** representation of students meeting proficiency standards on the 5th grade math MCA.

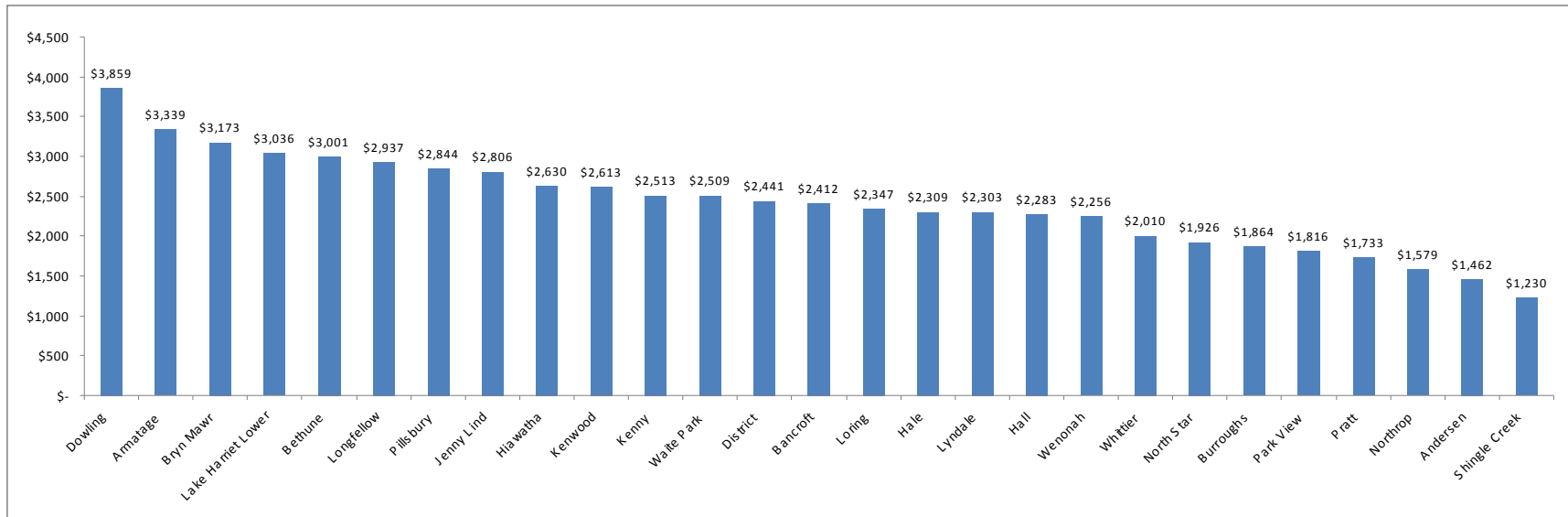
Pearson Correlation Coefficient: 0.38 There was a moderate positive correlation between spending and representation of students meeting the selected math proficiency measure.



K-5 Schools

K-5 Fig. 1: General Fund per Pupil Spending on Classroom Teachers by K-5 Site

In 2004-05, per pupil General Fund spending on teacher salaries at Shingle Creek was only 50% of the district average for K-5 schools. Shingle Creek spent only 32% of the amount spent at Dowling.



NOTES:

- Spending at Dowling is boosted by its specialized program for children with disabilities. However, many sites operate costly special education programs. Moreover, the spending and population studies provide for analysis according to special education representation.
- Lake Harriet Lower served grades K-2 and Hale served grades K-4.

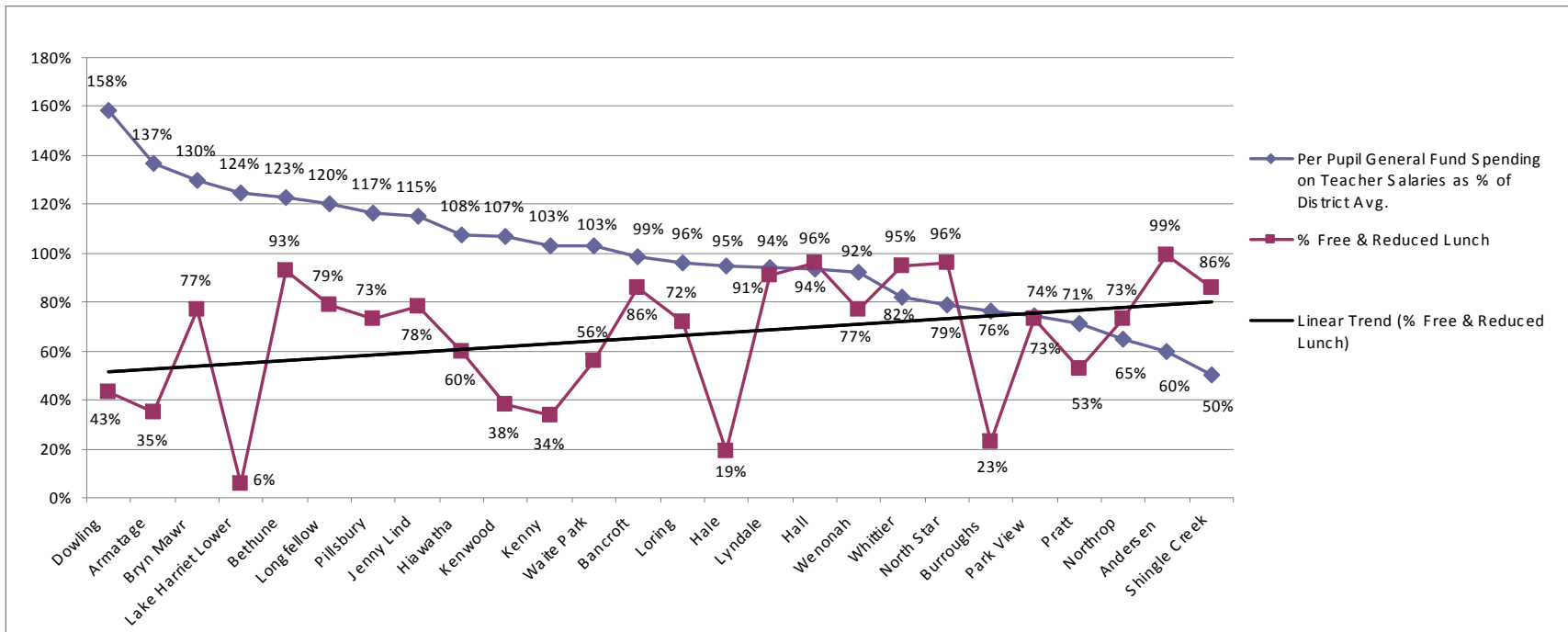
K-5 Fig. 2: Source Data for Spending and Population Studies

Spend. and Pop. Info.	Dowling	Armatage	Bryn Mawr	Lake Harriet Lower	Bethune	Longfellow	Pillsbury	Jenny Lind	Hiawatha	Kenwood	Kenny	Waite Park	Bancroft	Loring	Hale	Lyndale	Hall	Wenonah	Whittier	North Star	Burroughs	Park View	Pratt	Northrop	Andersen	Shingle Creek
Per pupil General Fund spending on teacher salaries	\$3,859	\$3,339	\$3,173	\$3,036	\$3,001	\$2,937	\$2,844	\$2,806	\$2,630	\$2,613	\$2,513	\$2,509	\$2,412	\$2,347	\$2,309	\$2,303	\$2,283	\$2,256	\$2,010	\$1,926	\$1,864	\$1,816	\$1,733	\$1,579	\$1,462	\$1,230
Spend. as % of MPS avg. for this grade config.	158%	137%	130%	124%	123%	120%	117%	115%	108%	107%	103%	103%	99%	96%	95%	94%	94%	92%	82%	79%	76%	74%	71%	65%	60%	50%
# of Students	433	384	354	312	278	251	353	496	212	263	274	299	406	276	580	318	163	254	293	463	596	278	89	289	348	301
% Free & Red. Lunch Eligible	43%	35%	77%	6%	93%	79%	73%	78%	60%	38%	34%	56%	86%	72%	19%	91%	96%	77%	95%	96%	23%	73%	53%	73%	99%	86%
% Limited Engl. Prof.	9%	10%	28%	1%	19%	24%	22%	26%	25%	15%	12%	13%	49%	20%	7%	53%	21%	36%	50%	20%	21%	2%	29%	37%	64%	34%
% Sp. Ed.	15%	20%	21%	8%	23%	23%	14%	13%	13%	11%	14%	10%	14%	11%	6%	12%	10%	13%	10%	16%	6%	12%	7%	9%	7%	6%
% White	53%	58%	18%	87%	6%	23%	33%	20%	39%	52%	53%	56%	13%	29%	67%	11%	2%	29%	7%	4%	71%	18%	42%	24%	3%	7%
% Afr. Am.	33%	24%	51%	4%	69%	60%	46%	42%	17%	27%	27%	24%	32%	45%	18%	60%	75%	29%	50%	75%	4%	74%	43%	29%	26%	54%
% Hisp.	5%	6%	1%	4%	3%	6%	7%	5%	31%	8%	11%	7%	44%	3%	5%	24%	1%	34%	36%	0%	21%	1%	3%	42%	66%	2%
% Asian	3%	9%	30%	5%	20%	3%	7%	29%	4%	12%	5%	10%	8%	22%	8%	4%	18%	4%	3%	18%	3%	5%	12%	2%	3%	35%
% Native Am.	6%	2%	0%	1%	2%	9%	8%	4%	8%	1%	4%	3%	4%	1%	1%	1%	3%	5%	4%	4%	1%	2%	0%	3%	3%	2%
% 3 rd Gr. MCA Math Prof.	63%	73%	44%	92%	25%	32%	54%	43%	50%	65%	75%	63%	31%	47%	76%	38%	24%	45%	23%	37%	74%	50%	70%	51%	23%	37%

K-5 Fig. 3: General Fund Spending on K-5 Teachers Vs. Low Income Representation

Trend statement: In 2004-05, when K-5 sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of low income students.

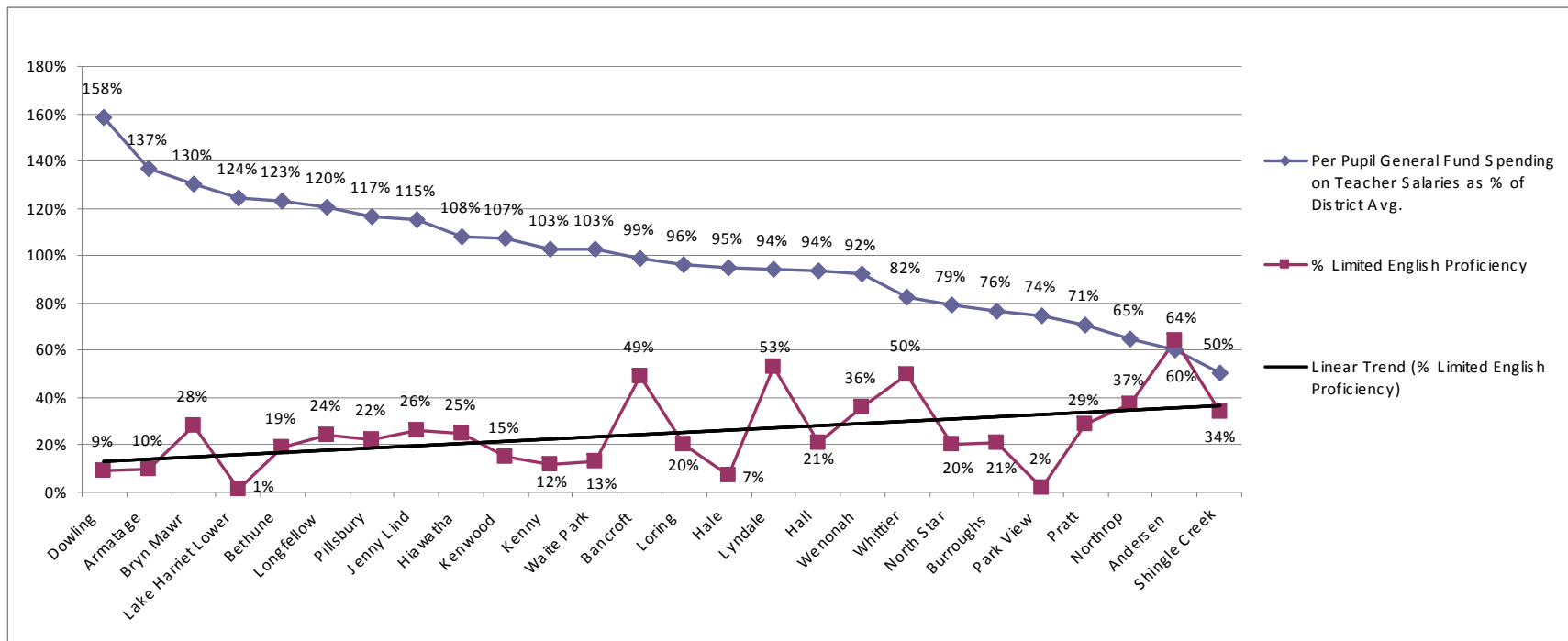
Pearson Correlation Coefficient: -0.32 There was a moderate negative correlation between spending and representation of low income students.



K-5 Fig. 4: General Fund Spending on K-5 Teachers Vs. Limited English Proficiency Representation

Trend statement: In 2004-05, when K-5 sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of students with limited English proficiency.

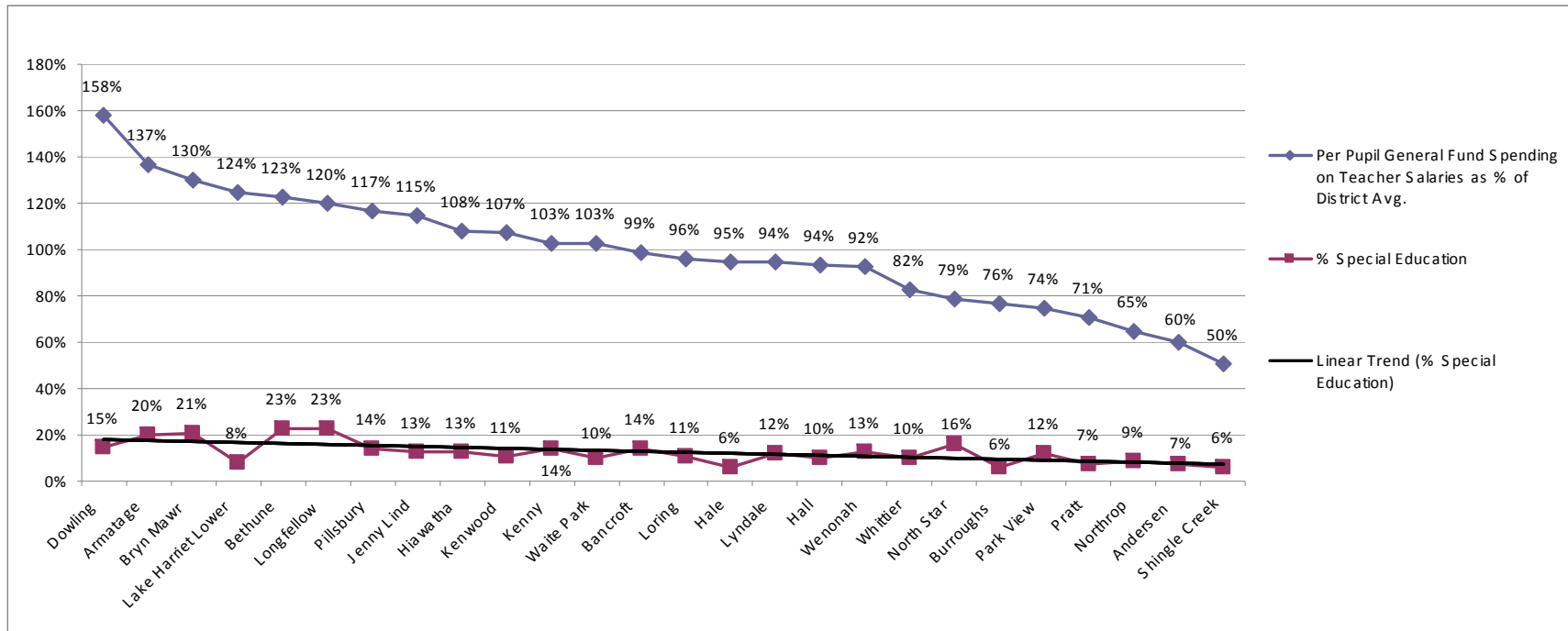
Pearson Correlation Coefficient: -0.46 There was a moderate negative correlation between spending and representation of LEP students.



K-5 Fig. 5: General Fund Spending on K-5 Teachers Vs. Special Education Representation

Trend statement: In 2004-05, when K-5 sites had lower General Fund per pupil spending on teacher salaries, there was a trend toward lower representation of special education students.

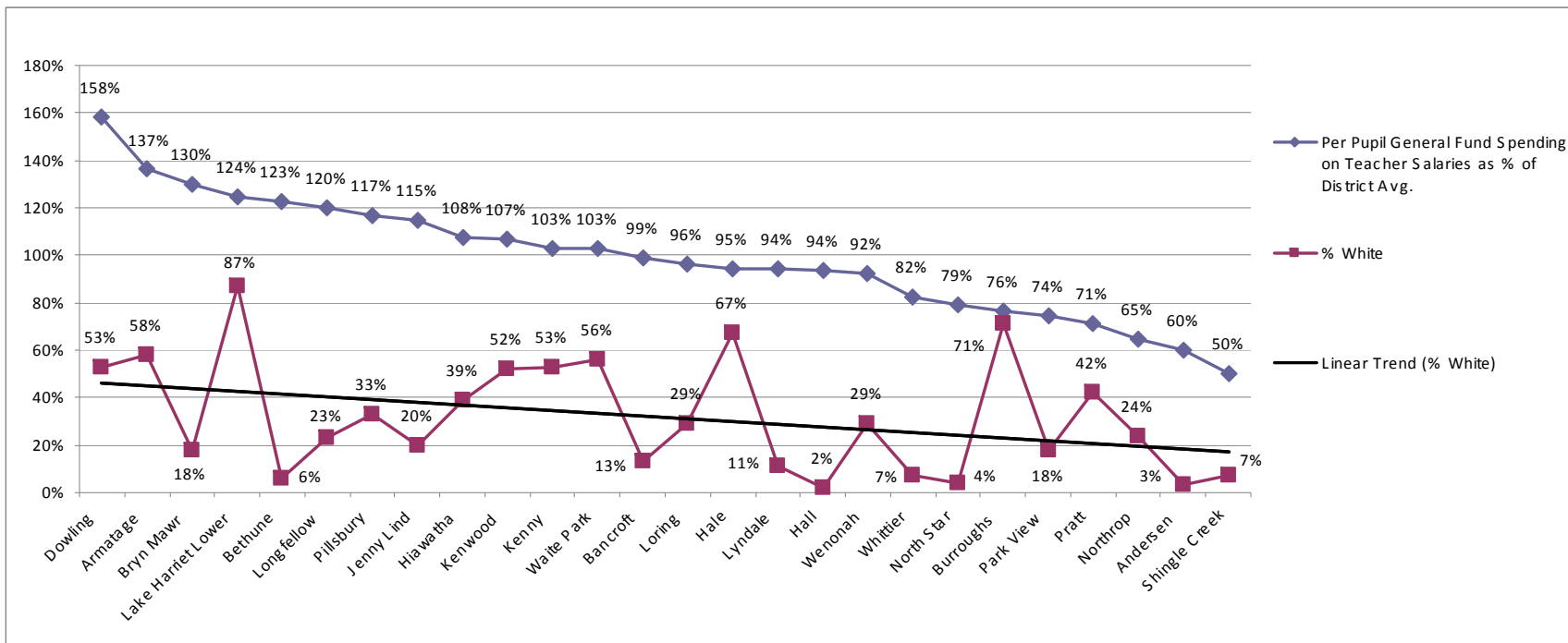
Pearson Correlation Coefficient: 0.65 There was a strong positive correlation between spending and representation of special education students.



K-5 Fig. 6: General Fund Spending on K-5 Teachers Vs. White Student Representation

Trend statement: In 2004-05, when K-5 sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **lower** representation of white students.

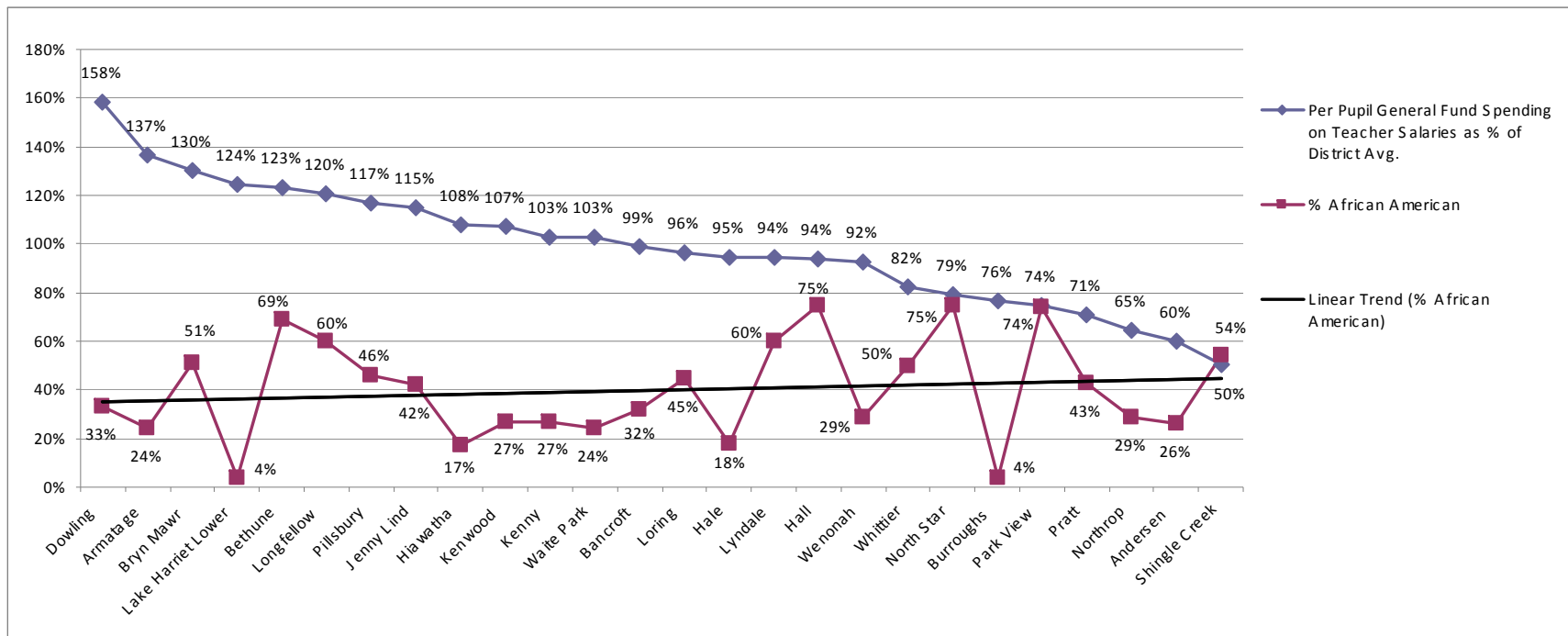
Pearson Correlation Coefficient: 0.36 There was a moderate positive correlation between spending and representation of white students.



K-5 Fig. 7: General Fund Spending on K-5 Teachers Vs. African American Student Representation

Trend statement: In 2004-05, when K-5 sites had lower General Fund per pupil spending on teacher salaries, there was a trend toward higher representation of African American students.

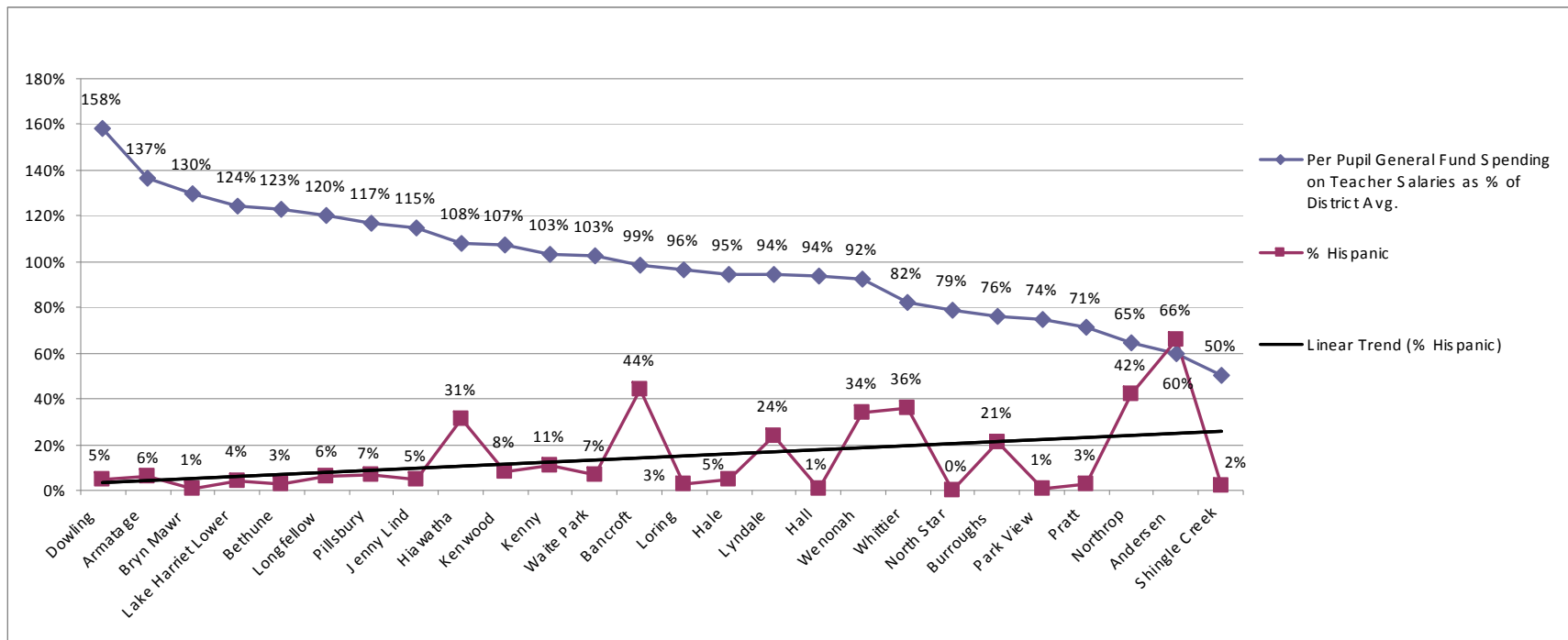
Pearson Correlation Coefficient: -0.12 There was a weak negative correlation between spending and representation of African American students.



K-5 Fig. 8: General Fund Spending on K-5 Teachers Vs. Hispanic Student Representation

Trend statement: In 2004-05, when K-5 sites had **lower** General Fund per pupil spending on teacher salaries, there was a trend toward **higher** representation of Hispanic students.

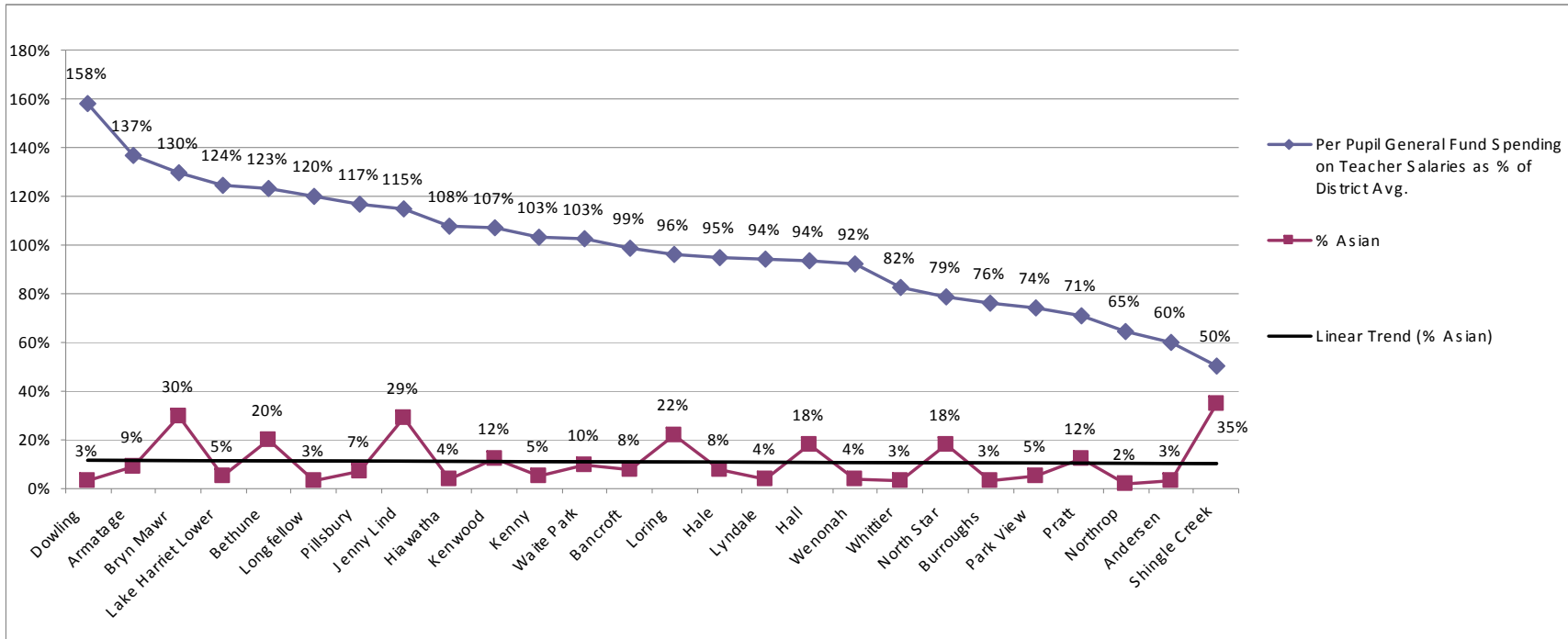
Pearson Correlation Coefficient: -0.38 There was a moderate negative correlation between spending and representation of Hispanic students.



K-5 Fig. 9: General Fund Spending on K-5 Teachers Vs. Asian Student Representation

Trend statement: Undetermined for 2004-05

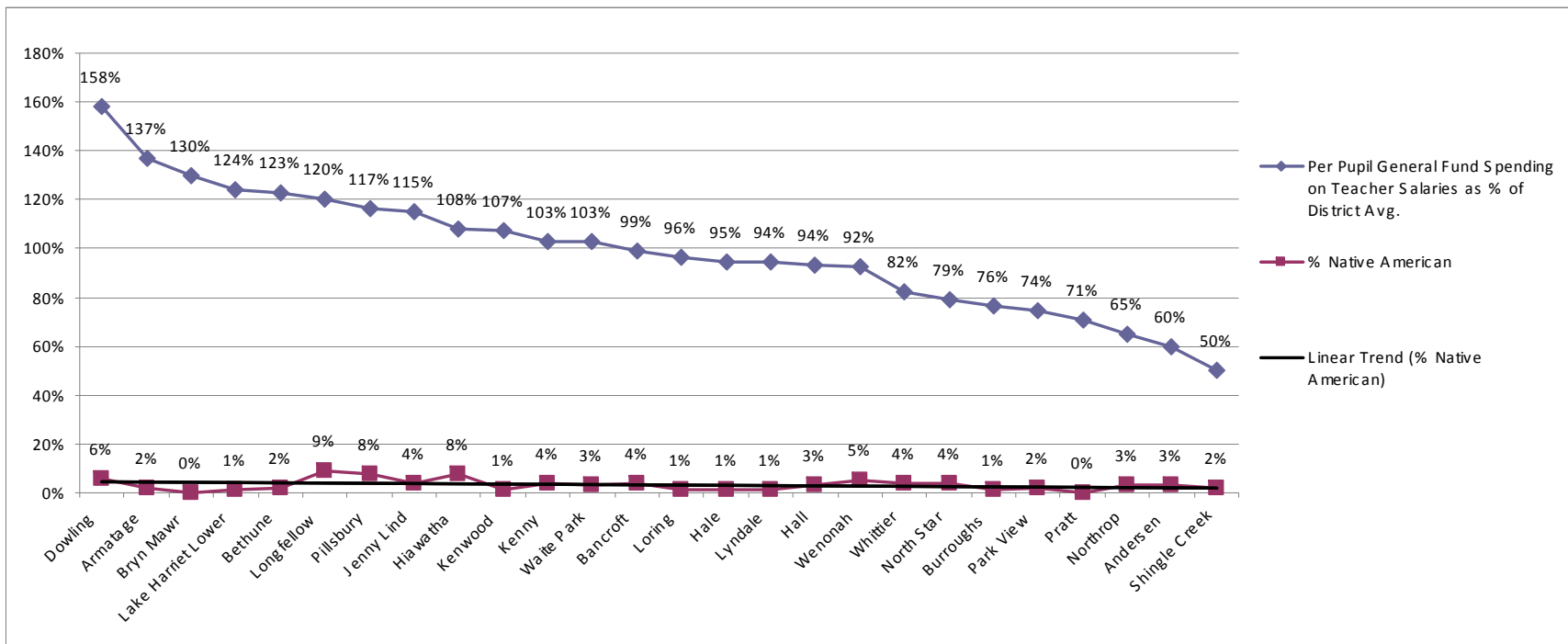
Pearson Correlation Coefficient: -0.03 There was a very weak negative correlation between K-5 spending and representation of Asian students.



K-5 Fig. 10: General Fund Spending on K-5 Teachers Vs. Native American Student Representation

Trend statement: In 2004-05, when K-5 sites had lower General Fund per pupil spending on teacher salaries, there was a trend toward lower representation of Native American students.

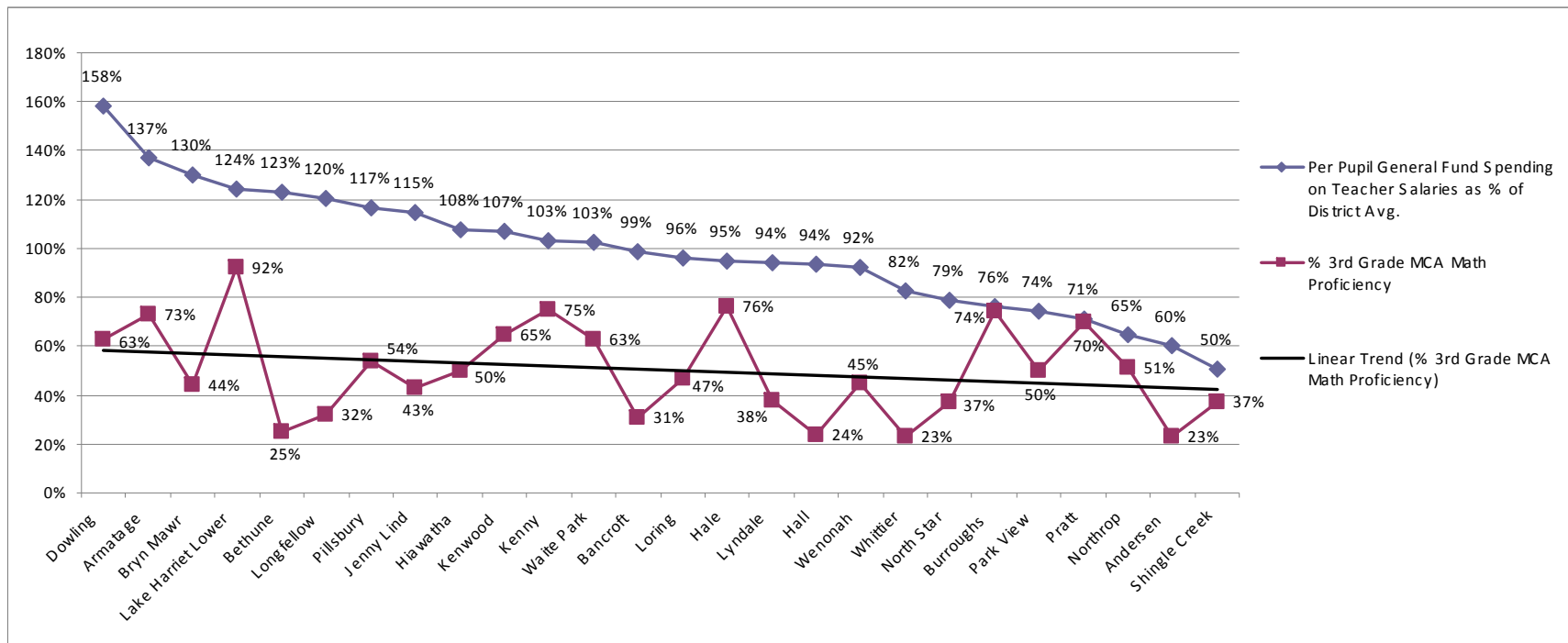
Pearson Correlation Coefficient: 0.27 There was a weak positive correlation between spending and representation of Native American students.



K-5 Fig. 11: General Fund Spending on K-5 Teachers Vs. Math Performance Measure

Trend statement: In 2004-05, when K-5 sites had lower General Fund per pupil spending on teacher salaries, there was a trend toward lower representation of students meeting proficiency standards on the 3rd grade math MCA.

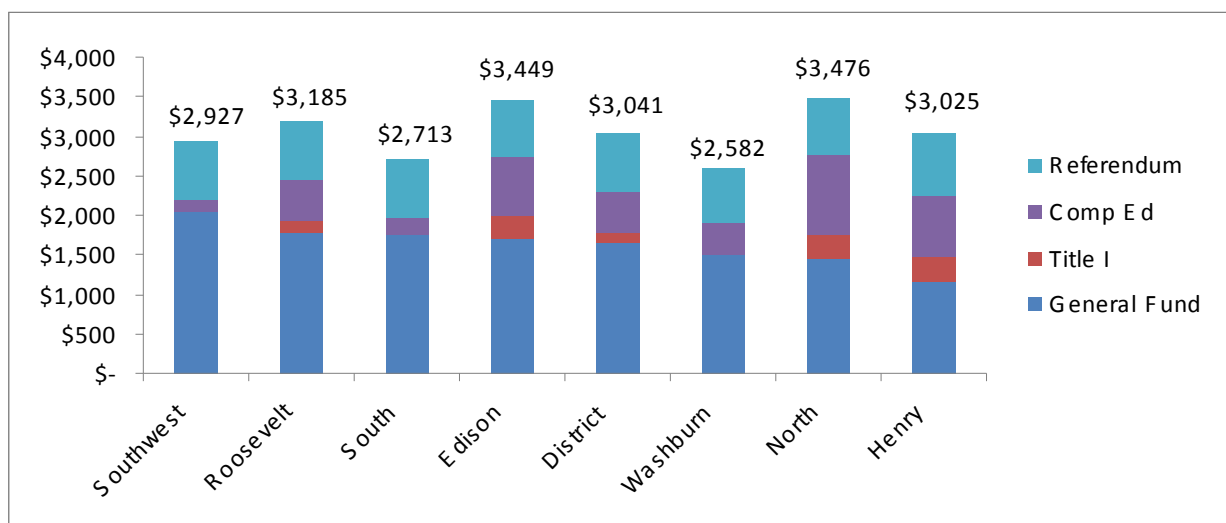
Pearson Correlation Coefficient: 0.26 There was a weak positive correlation between spending and representation of students meeting the selected math proficiency standard.



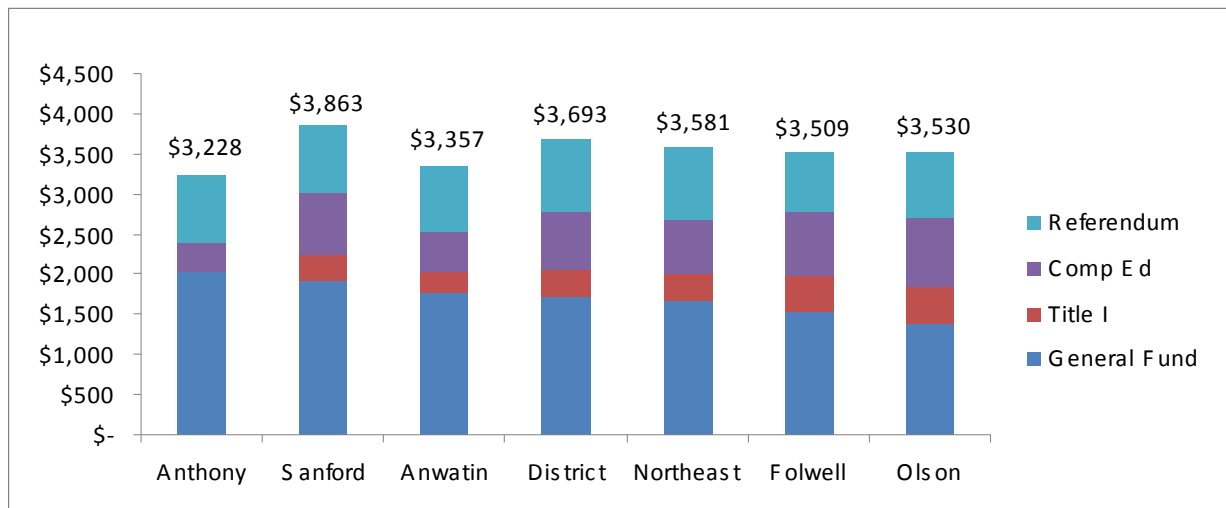
5. Spending of Supplemental Funds

The next charts show how addition of Title I (Fund 23), Compensatory Education (Fund 31), and Referendum (Fund 96) dollars changed site spending on teacher salaries during 2004-05. The supplements made per pupil spending higher at all sites. However, in some cases, the supplements did little more than to make up for below-average spending of General Fund monies (Fund 1). For example, in the first graph below, the addition of supplemental funding brings spending at Henry High in line with spending at Southwest. But it does not make Henry's spending markedly higher than Southwest's, as might be expected given Henry's much higher representation of disadvantaged students – students whose enrollment leverages supplemental aid. This is the picture of fund supplantation that the supplemental grant restrictions seek to avoid.

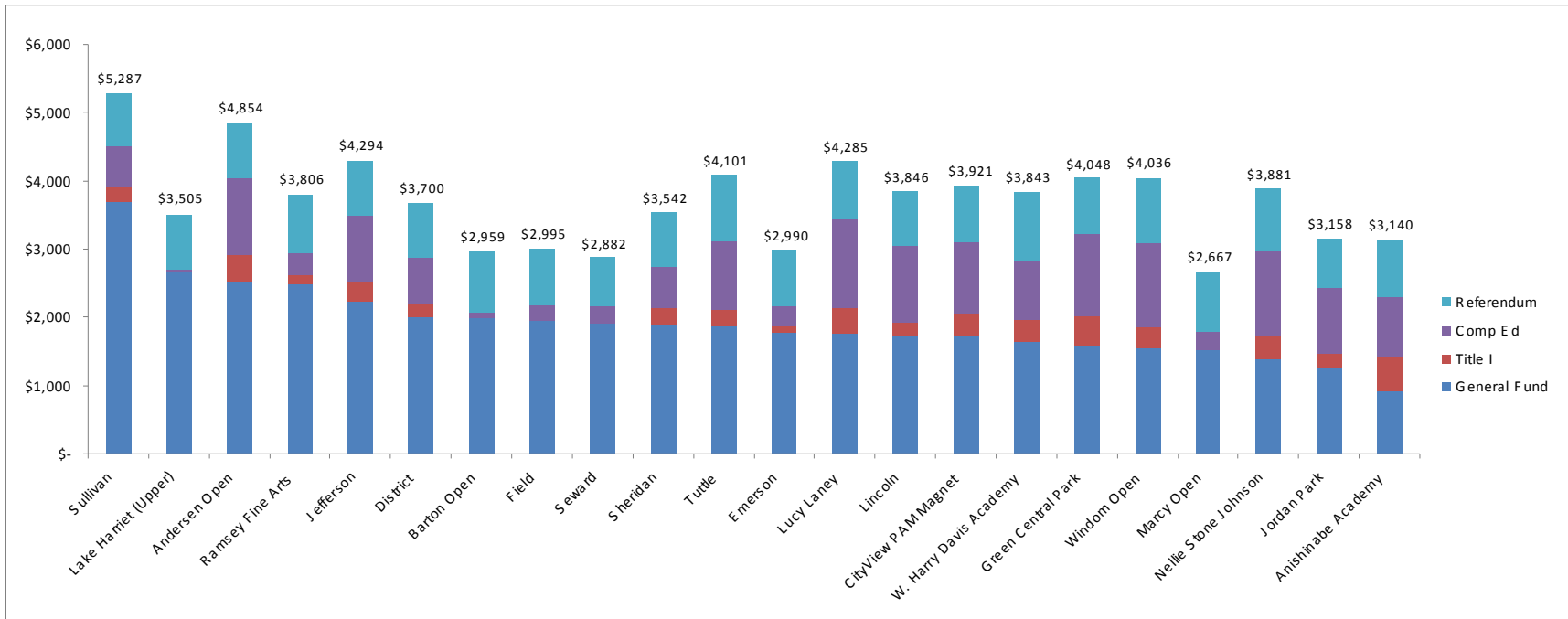
Base and Supplemental Spending Fig. 1: High Schools



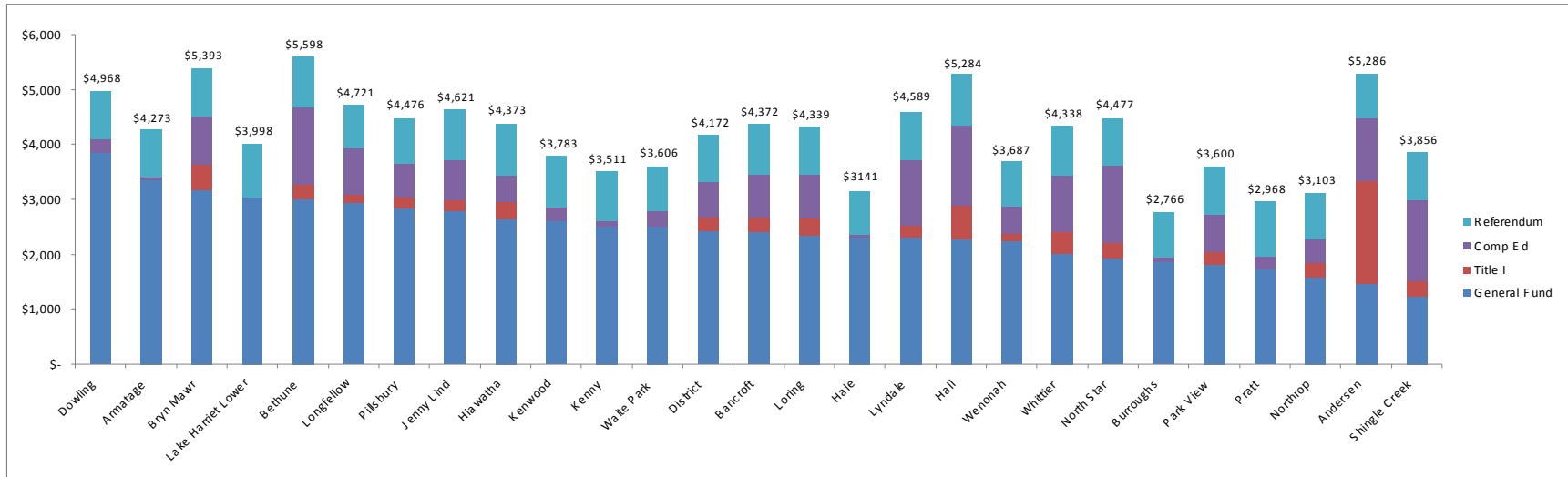
Base and Supplemental Spending Fig. 2: Middle Schools



Base and Supplemental Spending Fig. 3: K-8 Schools



Base and Supplemental Spending Fig. 4: K-5 Schools



6. Another View: Average Teacher Salary by Site

Studying average teacher salaries at each site is different than studying General Fund spending on teacher salaries. This is because site average teacher salaries reflect payments to teachers from all funding streams. In sorting the schools from high to low in average teacher pay, schools appear in a different order in the charts below, compared to the order of schools found in the Spending and Population studies (chapter 4).

Data used to calculate the average teacher salary figures were requested from Minneapolis Public Schools by Carla Bates. A subsequent study will test population and average salary correlations, as was done in the 2002-03 study. However, the information is provided in raw form now for comparison with the spending studies.

Average Teacher Salaries Fig. 1: High Schools 9-12

High Schools	Southwest	South	Washburn	Edison	Roosevelt	North	Henry
Teacher FTEs	82.1	91.6	69.5	77.5	85.1	78.8	89.8
Average Pay	\$60,121	\$59,428	\$59,038	\$58,303	\$56,627	\$56,587	\$55,069
Percent of District Avg.	104%	103%	102%	101%	98%	98%	95%

Average Teacher Salaries Fig. 2: Middle Schools 6-8

Middle Schools	Sanford	Anthony	Anwatin	Folwell	Olson	Northeast
Teacher FTEs	31.5	37.3	43.9	41.1	40.1	31
Average Pay	\$56,474	\$56,438	\$56,130	\$55,235	\$54,152	\$53,495
Percent of District Avg.	102%	102%	101%	100%	98%	97%

Average Teacher Salaries Fig. 3: K-8 Schools

Percent of District Avg.	Average Pay	Teacher FTEs	K-8 Schools
105%	\$58,688	28.9	Emerson
104%	\$57,953	34.1	Barton Open
103%	\$57,745	35.7	Lk. Harriet Upper
103%	\$57,598	14.7	Tuttle
102%	\$57,177	28	Windom Open
102%	\$57,162	44.8	Lucy Laney
101%	\$56,525	58.1	Ramsey Fine Arts
101%	\$56,303	42	Lincoln
100%	\$56,141	71.9	Sullivan
100%	\$55,977	22.7	Field
100%	\$55,936	33.2	W. Harry Davis
100%	\$55,855	49.8	Sheridan
99%	\$55,560	39.2	Seward
99%	\$55,425	53.9	Andersen Open
99%	\$55,403	50.5	Jefferson
99%	\$55,395	28.9	Jordan Park
98%	\$55,044	40	Green Central
98%	\$54,899	30.1	Marcy Open
97%	\$54,413	44.2	CityView PAM
95%	\$53,321	20	Anishinabe Acad.
94%	\$52,552	38.6	Nellie Stone

Average Teacher Salaries Fig. 4: K-5 Schools

Percent of District Avg.	Average Pay	Teacher FTEs	K-5 Sites
107%	\$61,971	22.8	Lk. Harriet Lower
106%	\$61,629	29.5	Pillsbury
105%	\$60,712	30.1	Armatage
105%	\$60,672	32.7	Bancroft
104%	\$60,439	21.4	Kenwood
104%	\$60,349	16.8	Waite Park
104%	\$60,342	20.5	Loring
104%	\$60,132	38.3	Jenny Lind
104%	\$60,112	35.1	Bryn Mawr
104%	\$60,104	23.5	Whittier
103%	\$59,610	12.4	Kenny
103%	\$59,546	26	Burroughs
102%	\$59,222	25.2	Bethune
100%	\$57,926	29.1	North Star
100%	\$57,730	18.8	Hall
99%	\$57,432	18.2	Hiawatha
98%	\$56,665	28.2	Lyndale
98%	\$56,529	18.2	Longfellow
97%	\$56,514	21	Shingle Creek
96%	\$55,490	30.3	Hale
92%	\$53,607	14	Dowling
91%	\$52,888	18.4	Park View
90%	\$52,321	53.9	Andersen
90%	\$52,270	12.1	Wenonah
90%	\$52,042	14.7	Northrop

7. Next Steps

In 2004-05, across 53 MPS schools, there was significant disparity in per pupil spending of General Fund dollars on teacher salaries. Lower spending was correlated with higher representation of disadvantaged student groups and vice versa. Assuming that many public education stakeholders either expect or advocate for spending equity, there are many possible remedies for the problem, including the following types of strategies.

- Transition to building-based budgeting wherein the school's allocation becomes its actual budget to spend.

School hiring teams would have to manage spending by hiring a mix of higher and lower paid staff. This solution provides spending equity *but more importantly*, most Minneapolis Public Schools staff consulted on this report expressed the belief that a mix of experience levels in schools is the ideal staffing pattern.

- Institute a financial control in the current staff assignment process.

If stakeholders wish to retain many features of the current system, the expectation for spending equity can still be addressed. To provide just one example of such a solution, if a school's hiring of the top candidate for a position, as determined by the current bidding rules, would cause the school to exceed the district average teacher salary by (let's say) 1%, then the hiring committee would move down the list to hire the first candidate whose salary level would keep the school average salary within 1% of the district average. This type of a solution would still provide a high degree of spending equity, and yet operate according to labor management principles that are considered impartial.

- Integrate the schools.

If each school's population better reflected the demographics of the overall district, there might still be site-to-site spending disparity, but it could not be correlated with populations. This type of remedy must be viewed with caution given the 2007 United States Supreme Court decision on Voluntary Integration. Moreover, there is no need to accept a solution that allows for spending disparity. Doing so opens the door for the possibility that some schools, for whatever reason, could end up as undesirable to staff. In effect, these sites then become under-funded.

An important part of any remedy to intradistrict spending disparity is annual publication of actual spending reports, by site, fund and purpose. These reports would complement or simply take the place of reports based on salary averages.

Of course, equity is in the eye of the beholder. If fair distribution of positions rather than dollars is deemed acceptable under the law, and no system reform takes place, this report will hopefully contribute to a change in the message communicated. Stakeholders who express the belief that their schools are shortchanged can accurately be told that they receive their fair share of positions – but not necessarily dollars.

To be sure, this would satisfy some stakeholders as an adequate assurance of equity in school resource distribution. It is up to the public to determine whether this definition meets the expectations of most stakeholders, and serves broad-based community interests.

For Further Reading

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