
Visualizing District **Achievement Gaps**

District-Level Trends in African-American
Student Achievement (2012-2013)

Research Brief

Introduction and Purpose

The gap in achievement between African-American students and students of other racial or ethnic groups is a well-known issue in national education research and policy. It has been studied extensively since the publication of the Equality of Educational Opportunity report of 1966 (commonly referred to as the Coleman report) (Coleman et. al., 1966) and shows up repeatedly in results of the National Assessment of Educational Progress (NAEP). In 2014, the Michigan Department of Education (MDE) articulated seven strategic priorities, the first of which was to: “Close achievement gaps in reading and math, with an initial focus on African-American young men for whom data show are Michigan’s persistently lowest achieving student group.”¹

The purpose of this research brief is to present statewide 2012-2013 data on the achievement of African-American students overall (on standardized state assessments) by district, in the form of the following guiding questions.

- Q1. What is the overall distribution of African-American students throughout the state of Michigan?
- Q2. How are achievement gaps distributed throughout the state of Michigan? Are there any regional patterns?
- Q3. How is district achievement in Michigan correlated with concentration of African-American students?
- Q4. How can we visualize the difference between African-American and other student performance by district?
- Q5. Are there any patterns in Reading and Math Achievement at LEAs and PSAs? How are they related to concentration of African-American students?

For the bulk of the analysis below, district names are not used. The greater purpose for this research brief is to identify trends rather than to highlight specific districts. Data for the ten districts with the greatest number of African-American students in the state are presented in the appendix. These ten districts are also annotated in some of the graphs.

Data and Methodology

The following section presents information on the data inclusion process to properly interpret the information in the brief. Table 1 shows the racial demographic data for all Michigan students, for students included in statewide accountability, and students who met the inclusion criteria for this brief. It should be noted that the demographic composition of the final subsample is marginally different from the statewide demographic composition. The MDE data portal MiSchoolData contains student count information for all of the students (K-12) in Michigan. The total number of students in 2012-2013 was 1,573,349.

The data used to answer the questions presented in the brief come from the MDE accountability system. The starting sample came from the accountability database containing student demographic and test score information. This database includes all students (those who tested and those who did not test) in grades for which standardized tests are given: 3-8 and 11. There are 960,517 records in this database.

FAY

All of the analyses in the brief comparing test results use z-scores to allow student scores across all grades to be combined. The only students that have z-scores calculated in the accountability files are those considered full academic year (FAY) students, meaning they have been enrolled in the school for a full academic year before testing.² This further restricts the number of students included in the analysis (as shown in columns six and seven on the following page).

¹ Source: Michigan Department of Education Mission and Priorities 2013-2015. Retrieved from: https://www.michigan.gov/documents/mde/SBE_MDE_Priorities_431241_7.pdf January 2015

² A more detailed definition of FAY is available at: http://www.michigan.gov/documents/mde/ScorecardGuide_426897_7.pdf

What is a Z-score?

Z-scores are used throughout this research brief to allow for the inclusion of students in every tested grade (3-8, and 11) who took the MEAP or MME. Z-scores are standardized test scores that allow for determining how far above or below the state average a student scored. Given a particular set of scale scores (e.g. third-grade reading MEAP scores), the mean and standard deviation are calculated and each scale score is converted to a z-score representing how many standard deviations above or below the mean it is. Once z- scores are calculated they can be used for comparison across grade levels. Scores included in this brief range from -2 to 2, where 2 means “two standard deviations above the mean”, which represents the highest level of achievement differentiated for Michigan accountability purposes

When using z-scores, the state average is represented by zero.

Assessments

Given the relatively small number of students in the state who take alternate assessments, only MEAP and MME results are used for the brief.

Impact on Numbers by Ethnicity

The sample used in this research brief consists of 708,213 students. While the racial/ethnic breakdown by percentage is nearly the same between MiSchoolData and the full accountability sample, the distribution changes somewhat for the population used in the brief. While there are 19% African-American students in the full population, only 16% of students in the brief population are African-American. Most importantly, the African-American students used in the brief represent only 40% of all African-American students in Michigan and 60% of the accountability reference group (full population). The number of white students used in the brief is 47% of those in MiSchoolData and 76% of those in the accountability group, meaning that African-American students were underrepresented, compared to white students, in the final sample of students. Due to the decisions around assessment type and FAY status, the remaining population differs from the total population of students in a few ways.

Table 1. State and Population Demographics 2012-2013

	Statewide Demographics (All Students ³)		Full accountability population (student details) Grades 3-8 & 11		Population used in brief Grades 3-8 & 11, FAY, MEAP & MME only	
Total	1,573,349	100%	960,517	100%	708,213	100%
American Indian or Alaska Native	11,832	1%	7,482	1%	5,162	1%
Asian or Pacific Islander	44,874	3%	28,443	3%	20,973	3%
Black or African American	290,461	18%	178,134	19%	116,200	16%
Hispanic or Latino	101,734	6%	61,493	6%	43,429	6%
Native Hawaiian or Other Pacific Islander	1,488	0%	902	0%	619	0%
Two or More Races	39,648	3%	23,097	2%	17,157	2%
White	1,083,312	69%	660,956	69%	504,673	71%

³ Source: MiSchoolData

At both of the filtering steps discussed above, African-American students were dropped at a rate higher than their percentage in the state:

1. Students were dropped from the analysis if they had neither math nor reading z-scores assigned. This would include any student that did not test at all, as well as students not classified as FAY in 2013. Among other possible factors, student groups with higher rates of mobility are more likely to have students not classified as FAY. In comparison to the 19% African-American students comprise statewide, 26% (53,386) of the students missing both math and reading z-scores were African-American.
2. African-American students are often overrepresented in special education⁴, and were disproportionately tested via the alternate assessments used for special education students (MI-Access and MEAP-Access) in the 2013 data, so the choice to exclude these assessments and focus on MEAP/MME resulted in dropping another 10,306 African-American students, 24% of the total students dropped because not taking a MEAP or MME assessment. Further research is planned using MI-Access to explore disparities.

Since the information throughout the brief is presented at the district level, it is likely that the number and percentage of African-American students dropped differs from district to district depending on factors like student mobility, attendance, and the amount of disproportionality in testing African-American students using alternate assessments. The major implication of the selection strategy is that all results must be recognized to apply to a specific portion of the student population, not necessarily generalizable to the entire population. Specifically, for example, given what we know about the effect of student mobility on academic performance, and that FAY students tend to be the more stable group of students, the results presented in this brief likely overestimate the performance of African-American students in particular. More detailed investigation into the differences between groups of African-American students based on assessment and FAY status is left to future analyses.

Q1. What is the overall distribution of African-American students throughout the state of Michigan?

The first section contains a series of maps locating African-American students by number and percent and representing gaps and assessment scores between African-American and other students. The maps contain information for nearly all Local Education Agencies (LEAs) in Michigan⁵.

⁴ E.g. Curtis, R. Miller, A. Shippen, M. (2009).

⁵ The three districts in all black on the map contain no data. These are districts that have recently closed, with the exception of Wells Township in the Upper Peninsula, which had no students in the accountability file or in MiSchoolData for 2012-2013 because all students were in Kindergarten through second grade and testing does not begin until third grade. The shape files used to create the outlines of the school districts are available at: <http://www.mcgi.state.mi.us/mgdl/?rel=ext&action=sext>.

Percent African-American Students by District

2012-2013 *FAY* MEAP/MME-tested Students

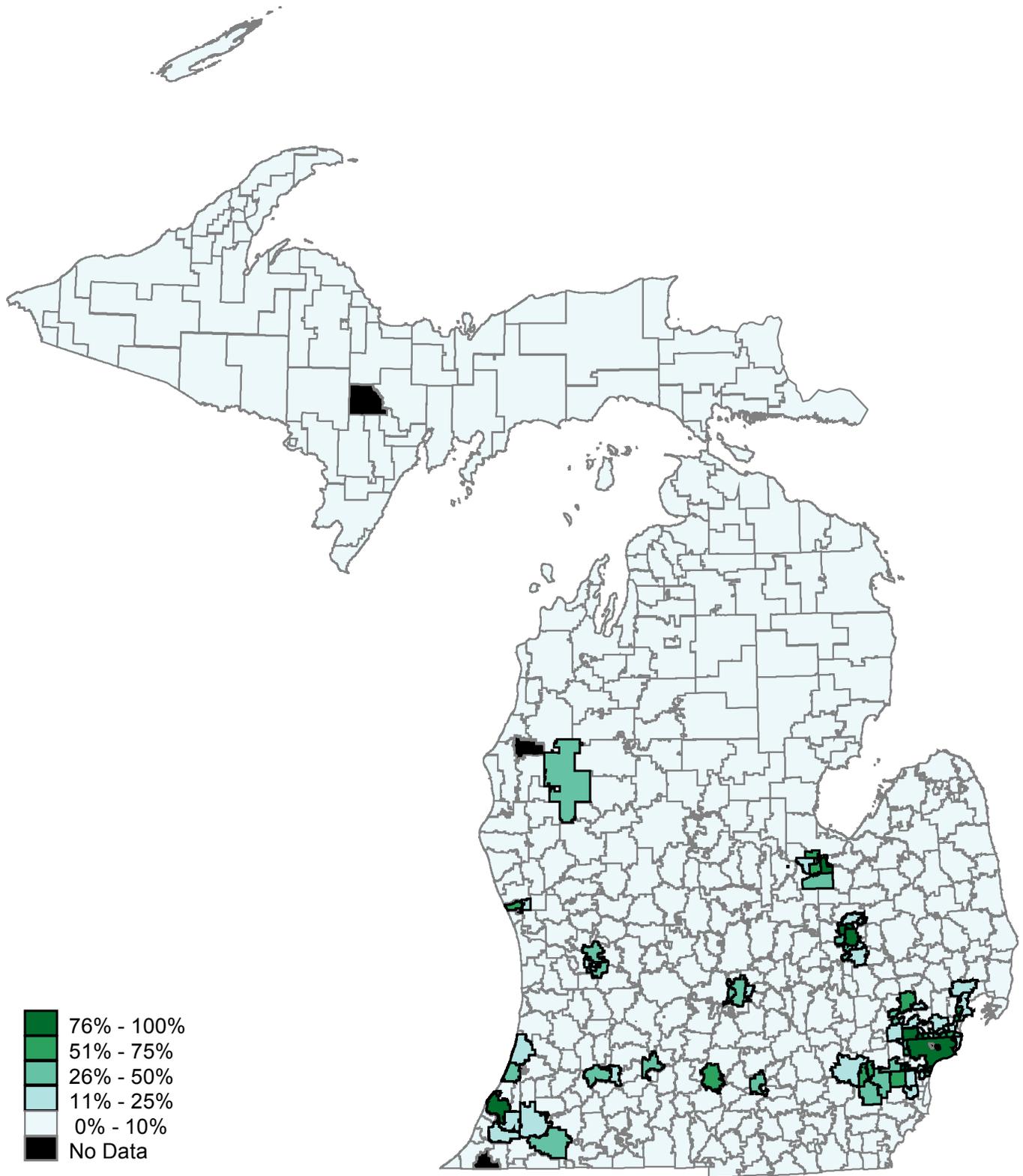


Figure 1. Percent of African-American *FAY* students by district, MEAP/MME tested 2012-2013

Figure 1 shows the percent of African-American students by district in 2012-2013. African-American students represent approximately 16% of total students in the state of Michigan. As the map shows, these students are mostly concentrated in a few districts.

Table 2 shows the number and percentage of districts⁶ with a given percentage of African-American students overall, as well as a breakdown for LEAs and PSAs. The vast majority of LEAs have very small percentages of African-American students.

Table 2. Number and Percentage of African-American Students by District Type 2012-2013						
	All Districts⁷		LEAs		PSAs	
0–20%	624	74%	488	90%	101	39%
>20 <= 40%	53	6%	25	5%	22	8%
>40 <= 60%	33	4%	10	2%	23	9%
>60 <= 80%	32	4%	12	2%	19	7%
>80%	111	12%	9	2%	95	37%
Total	853	100%	544	100%	260	100%

Figure 2 shows the number of African-American students by district, divided into four numeric categories with equal numbers in each category (approximately 3,900). Calculated this way, the only district in which a large number of African-American students shows up is Detroit. This is partly due to the sheer size of Detroit enrollment (50,172 in MiSchoolData and 15,604 in brief sample) compared to other districts. Also, other large districts (e.g. Utica, Plymouth-Canton) have small numbers of African-American students.

Using a different method, in which the districts were divided into four groups not forced to represent equal intervals of student enrollment, a more diverse picture emerges. Figure 2 shows that many districts across the state have at least fifty African-American students. The issue of concentration shows itself again, however, in the fact that only the highest category represented in the map contains districts that have more than 300 African-American students.

⁶ As stated previously, these numbers are based on districts that have Full Academic Year (FAY) students in tested grades. The 2012-2013 numbers in State School Aid and Finance data files are 549 LEAs and 277 PSAs.

⁷ "All Districts" includes ISDs and state schools (not shown in table) in addition to LEAs and PSAs.

Number of African-American Students by District

2012-2013 *FAY* MEAP/MME-tested Students

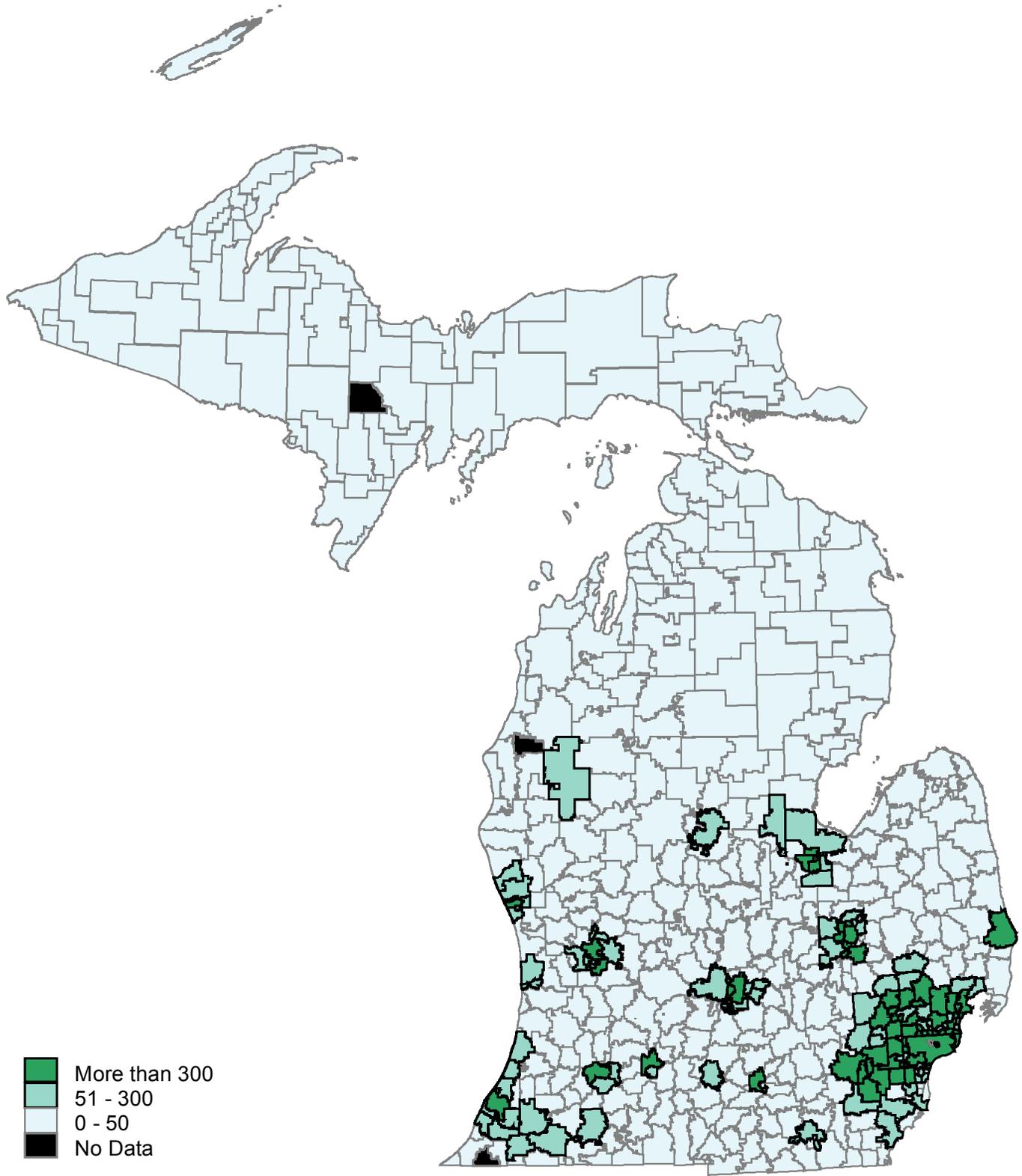


Figure 2. Number of African-American *FAY* students by district, MEAP/MME tested 2012-2013

Q2. How are achievement gaps distributed throughout the state of Michigan? Are there any regional patterns?

To determine whether any areas of Michigan have larger achievement gaps than others, the next two maps show the gap in performance between African-American students and all other students in math and in reading based on students' z-scores.

The achievement gaps were calculated by first averaging z-scores of African-American students and of all other students separately by district, then subtracting the other student average from the African-American student average. For both the math and reading maps, a negative value means that other students scored higher than African-American students and darker shading indicates a larger gap. Districts that have no African-American students and therefore no gap data were given a value of "No Data". Districts with fewer than ten students in either category (African-American or other students) were also assigned the value of No Data, since the gap measure is unreliable with such small comparison groups. For the gap maps, unlike the previous maps, No Data is represented by the color white due to the high proportion of districts in that category.

District Gap in Math Performance

2012-2013 FAY MEAP/MME-tested Students

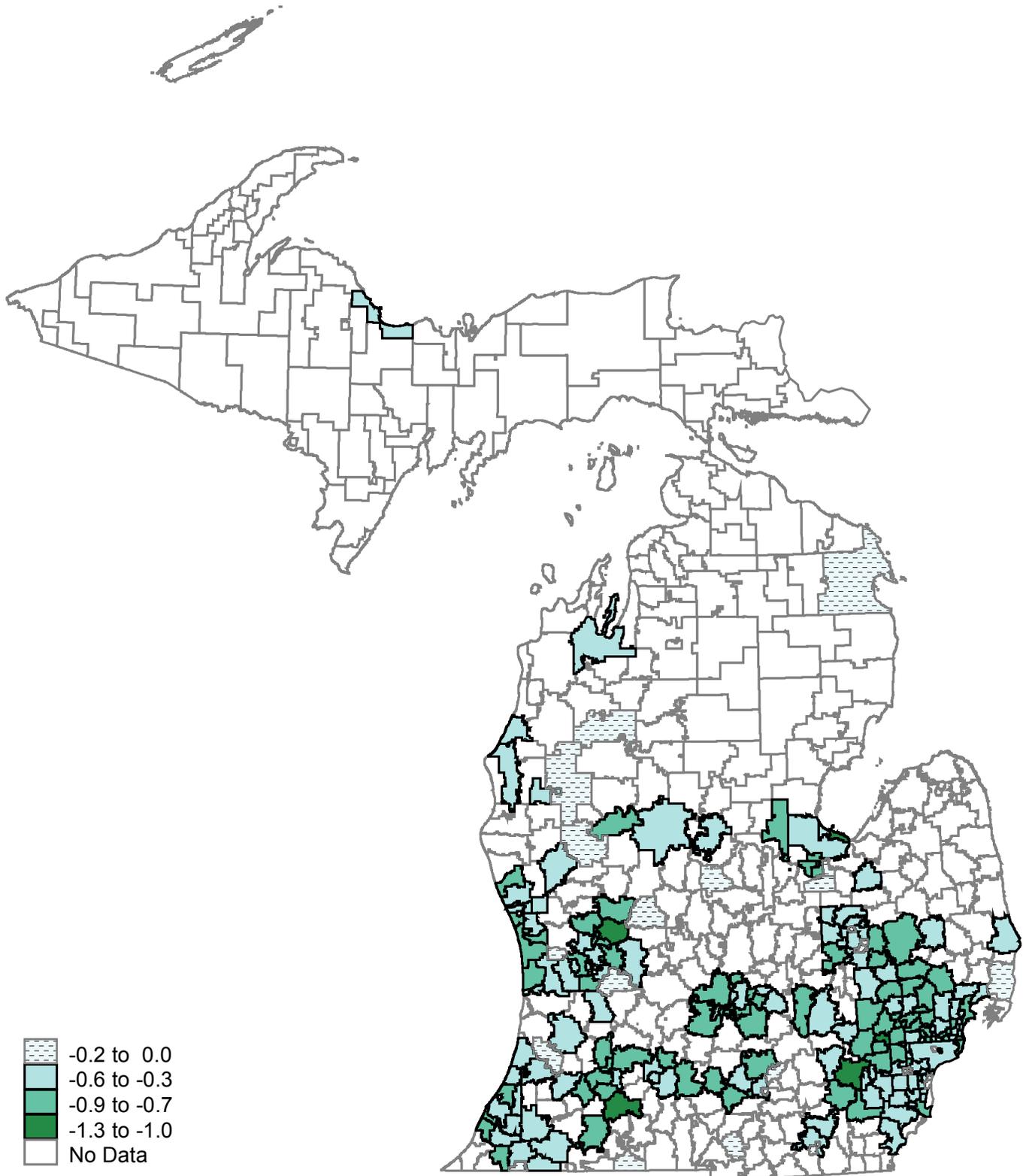


Figure 3. African-American Achievement Gap by District (FAY Students, MEAP/MME Math) 2012-2013

District Gap in Reading Performance

2012-2013 FAY MEAP/MME-tested Students

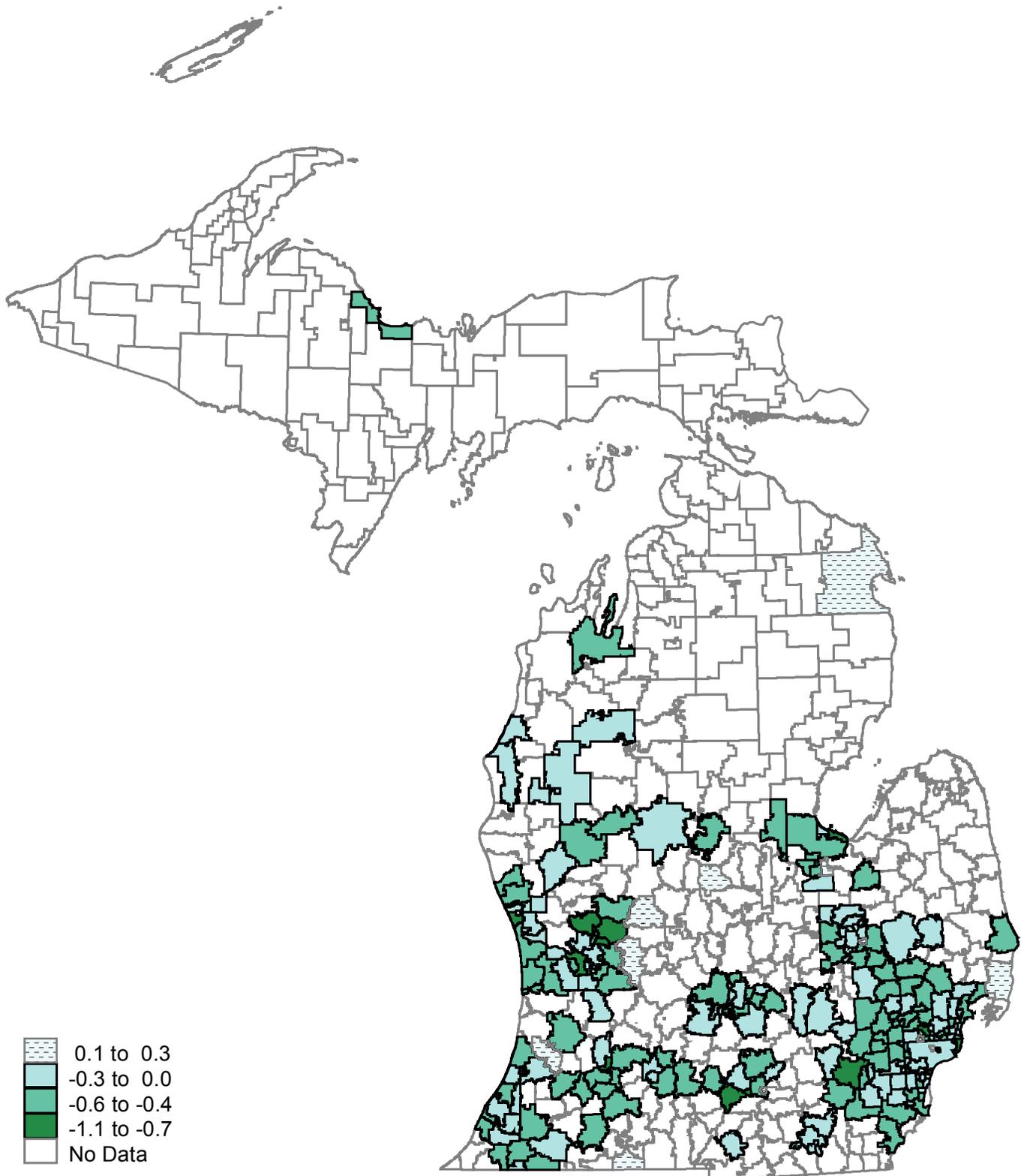


Figure 4. African-American Achievement Gap by District (FAY Students, MEAP/MME Reading) 2012-2013

Both the math and reading gap maps suggest that there is no particular regional pattern in magnitude of the gap; i.e. large gaps are not clustered in any one region of the state. The gaps range from zero (no difference between African-American and other students) to slightly over one (African-American students one standard deviation below other).

Q3. How is district achievement in Michigan correlated with concentration of African-American students?

Figure 6 is a scatter plot of overall district math performance. The vertical axis represents average math z-score, the horizontal axis is the percentage of African-American students, and each point represents one district. All Full Academic Year (FAY) tested students are included in the averages, as explained in the z-score callout. The red curve or line shows the overall relationship between math score and percent African-American students. The ten districts with the highest numbers of African-American students are annotated on the graph. Due to space constraints, the Educational Achievement Authority has been abbreviated to EAA.

The scatter plot reveals a lot of interesting information. First, of the districts represented on the scatter plot, the vast majority of districts have fewer than 20% African-American students. At the far left, the range of average scores for districts with 0% African-American students is wide, spreading from close to one standard deviation below the state mean all the way up to two above. The variation in scores decreases (as do the average scores themselves), however, as the percentage of African-American students increases.

The overall trend line shows clearly that overall average math score decreased as the percentage of African-American students increased. Although the curves for LEAs and PSAs both follow the same general trend, there are a few points of interest. At the far left side of the graph, where the percentage of African-American students is very low, the average scores are slightly higher within the LEA group. At the right side of the graph, however, where the percent African-American is 75% or greater, the average PSA scores are higher than LEA scores. Beyond 30% African-American (FAY), in fact, the only districts with average math z-scores higher than the state average are PSAs.

Figure 6 shows the same but for reading. District performance relative to percentage African-American is nearly identical to that in math, except that the average reading score is higher than the math score in most of the districts.

District Overall Math Performance by Percentage of African-American Students

2012-2013 FAY MEAP/MME-tested Students

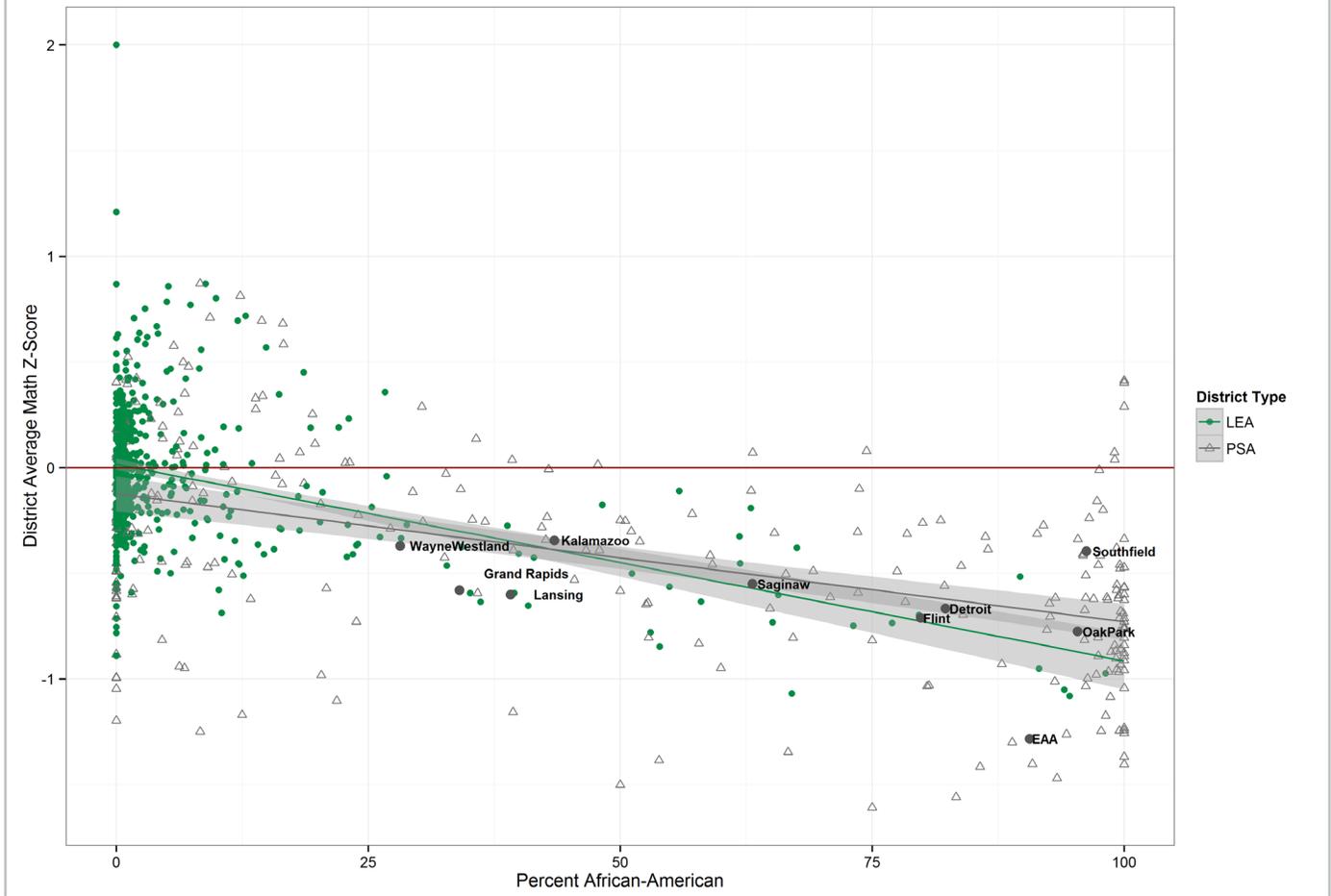


Figure 5. Percentage African-American students and MEAP/MME District Average Math Performance (FAY students) 2012-2013

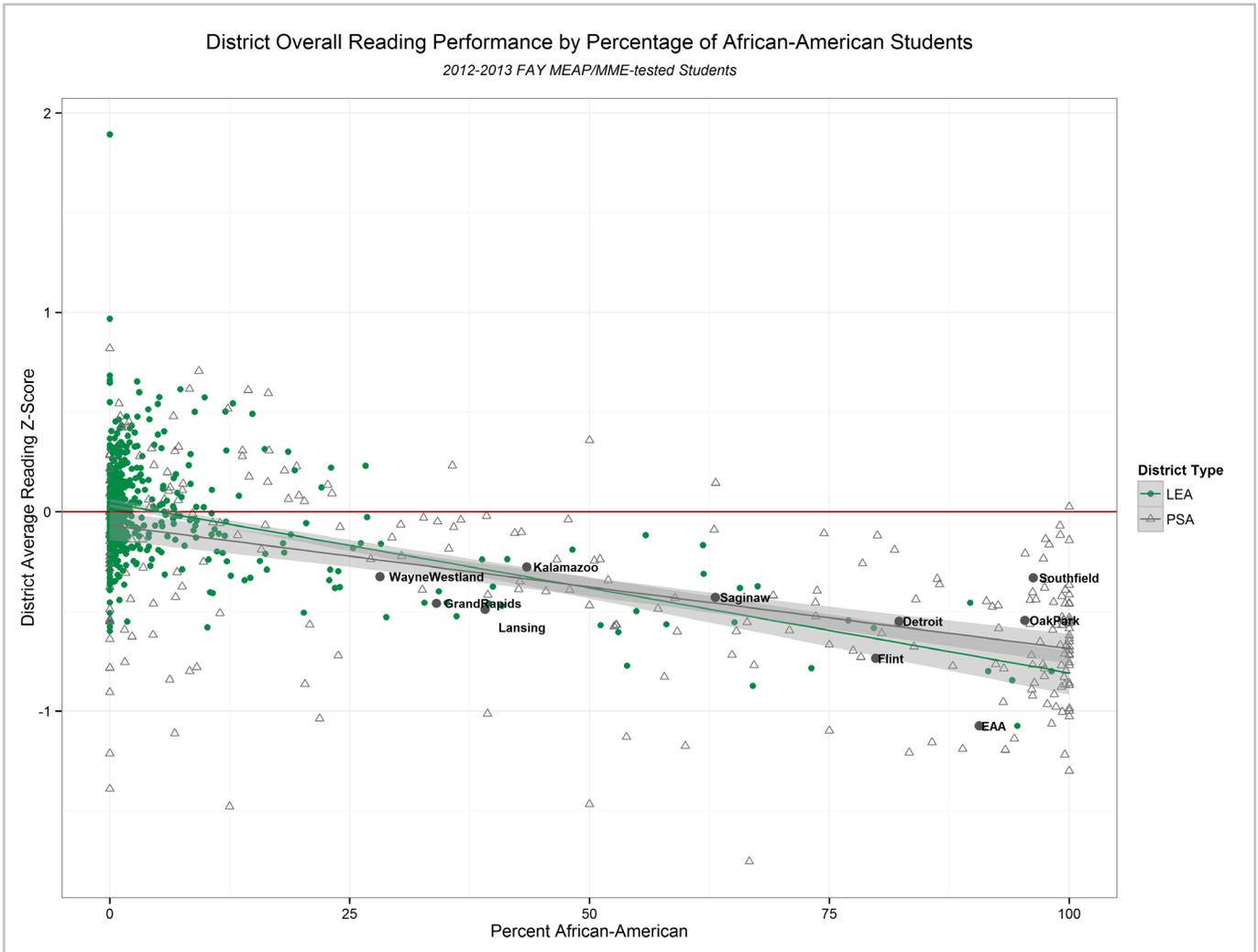


Figure 6. Percentage African-American students and MEAP/MME District Average Reading Performance (FAY students) 2012-2013

⁷ Source: Michigan State Board Of Education and Michigan Department Of Education Goal and Reform Priorities 2012-2013. Retrieved from: http://www.michigan.gov/documents/mde/FINAL_SBE_MDE_Goal_and_Reform_Priorities_2012-2013_389150_7.pdf?20140211143135

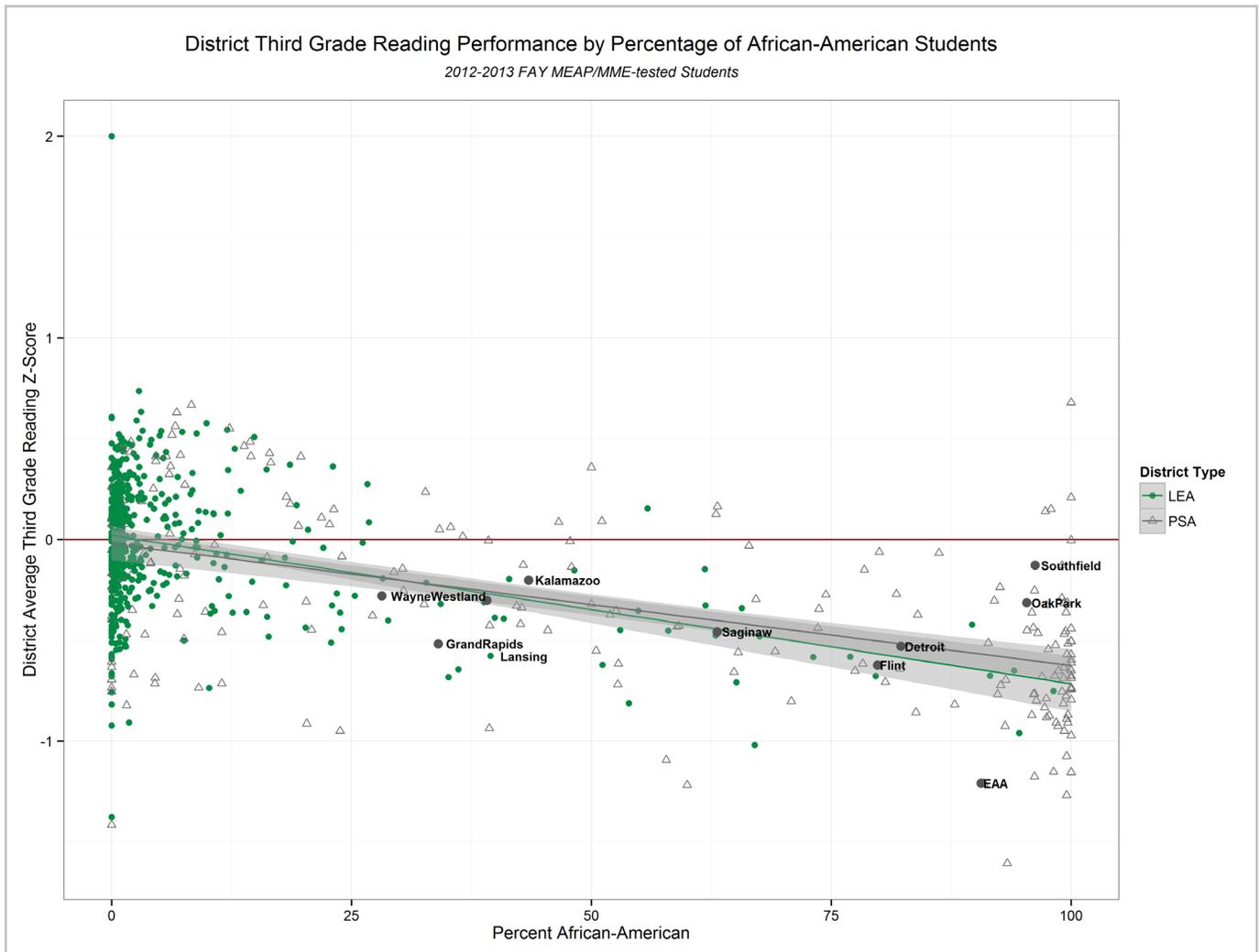


Figure 7. Percentage African-American students and Third Grade MEAP/MME Reading Performance (FAY students) 2012-2013

Figure 8 shows district reading performance by percentage of African-American students, but only for third grade reading. Achieving literacy by third grade is an MDE priority⁸. The pattern of achievement by district for third-graders is nearly identical to the pattern for all grades, but third-graders in Oak Park and the Education Achievement Authority (EAA) in particular did score closer to the state average. There is also one LEA with greater than 50% African-American students that scored above the state average.

Q4. How can we visualize the difference between African-American and other student performance, by district?

Figure 8 combines two graphs: 1.) the relationship between percentage African-American (FAY) students and the performance of African-American students and 2.) the relationship between percentage African-American students and the performance of Non-African-American (FAY) students⁹. The purpose is to examine whether the achievement of either set of students appears to change more than the other as the percentage of African-American students increases.

⁸ Source: Michigan State Board Of Education and Michigan Department Of Education Goal and Reform Priorities 2012-2013. Retrieved from: http://www.michigan.gov/documents/mde/FINAL_SBE_MDE_Goal_and_Reform_Priorities_2012-2013_389150_7.pdf?20140211143135

⁹ Due to space constraints, “Non-African-American” and occasionally “African-American” are abbreviated in the vertical axis titles of Figures 8 through 13.

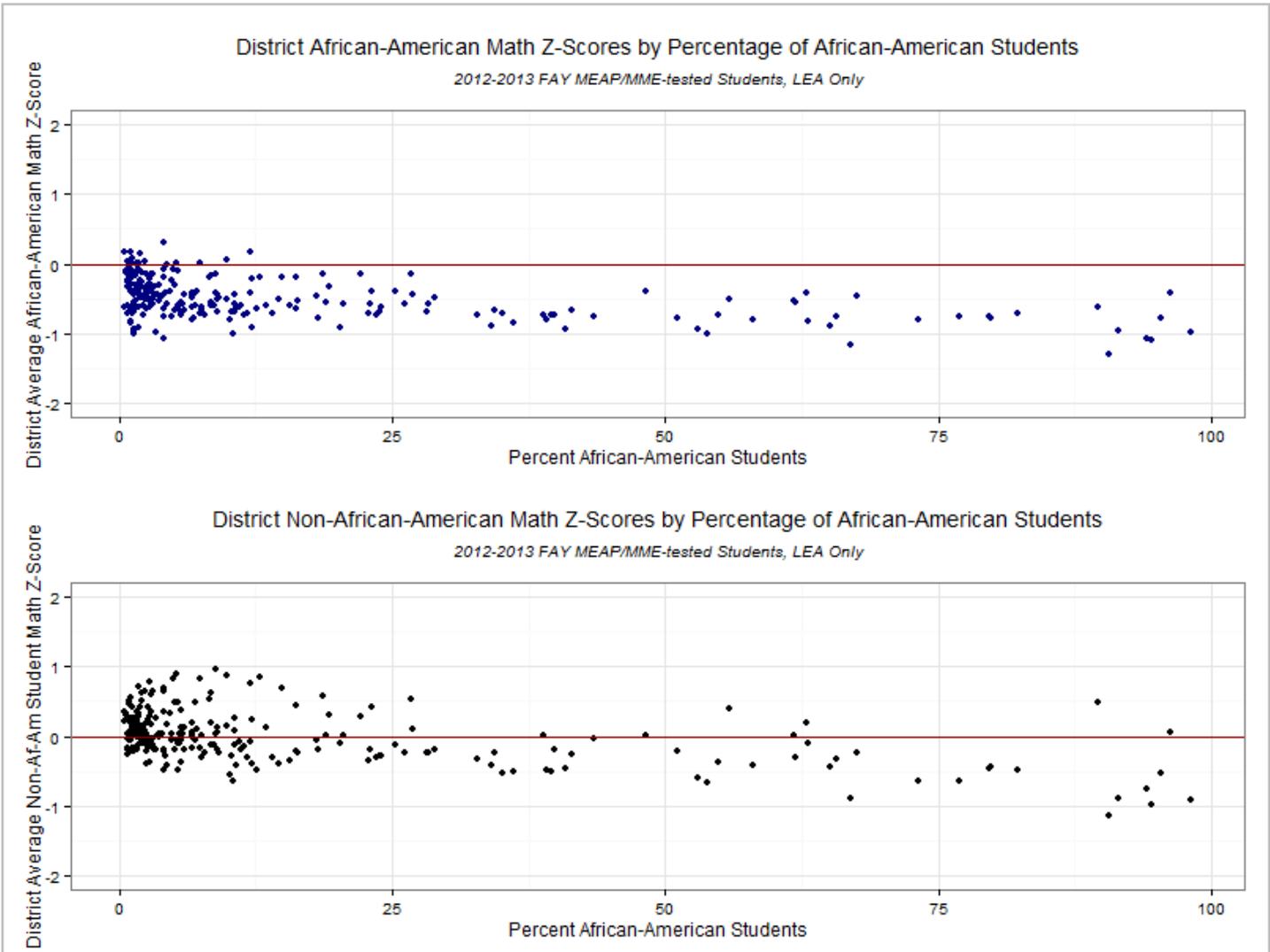


Figure 8. Percentage African-American students and District Average MEAP/MME Math performance for African-American and Non-African-American students¹⁰. (FAY students) 2012-2013

¹⁰ In Figures 9 through 14, any districts with fewer than 10 African-American students or fewer than 10 Non-African-American students were omitted.

The pattern of performance for African-American and Non-African-American students is similar: average math scores decrease as the percentage of African-American students increase. However, the performance of African-American students is lower than Non-African-American students at every point shown. The horizontal red line in each graph represents the state average score. Above 15% African-American students, no districts had average African-American student scores above the state average overall score, however there are a few districts with small percentages of African-American students in which they scored well.

Figure 9 is a section of the previous graph, showing a detail of districts with high percentages of African-American students. The African-American and Non-African-American Student average scores are shown on the same graph, and the seven districts in the Top 10 by number African-American that also have greater than 50% African-American students are annotated. It is clear from this figure that African-American average scores are lower than Non-African-American students in every district shown.

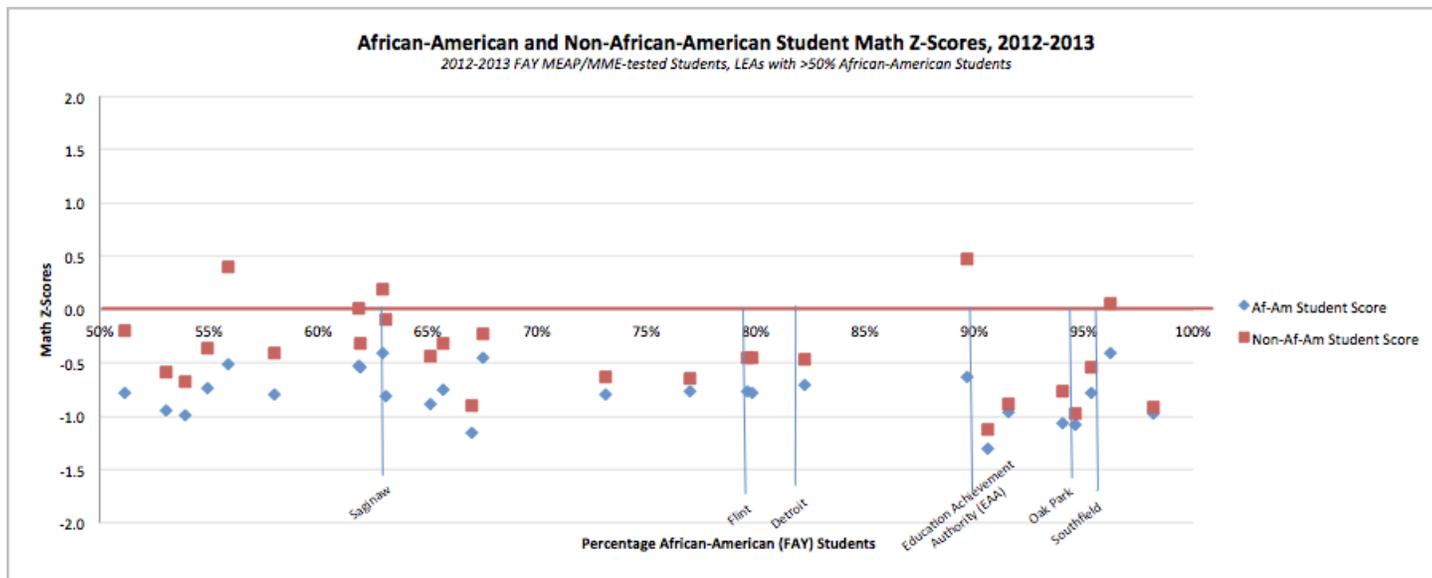


Figure 9. Percentage African-American students and District Average MEAP/MME Math performance for African-American and Other Students: Districts with greater than 50% African-American student populations. (FAY students) 2012-2013

Figure 9 is not replicated for PSAs because there are too many with greater than 50% African-American students, making the graph too crowded to meaningfully see the gaps as possible for LEAs.

Figure 10 shows the same information as Figure 8, for PSAs. The African-American average z-scores are still largely below the state average, but there are more that are close to average. There is more of a spread in scores, which is not surprising since PSAs are single-school districts. One PSA with nearly 75% African-American students scored above average and another with an even higher percentage scored at the state average. Other student averages at predominantly African-American PSAs are overall higher than at similar LEAs.

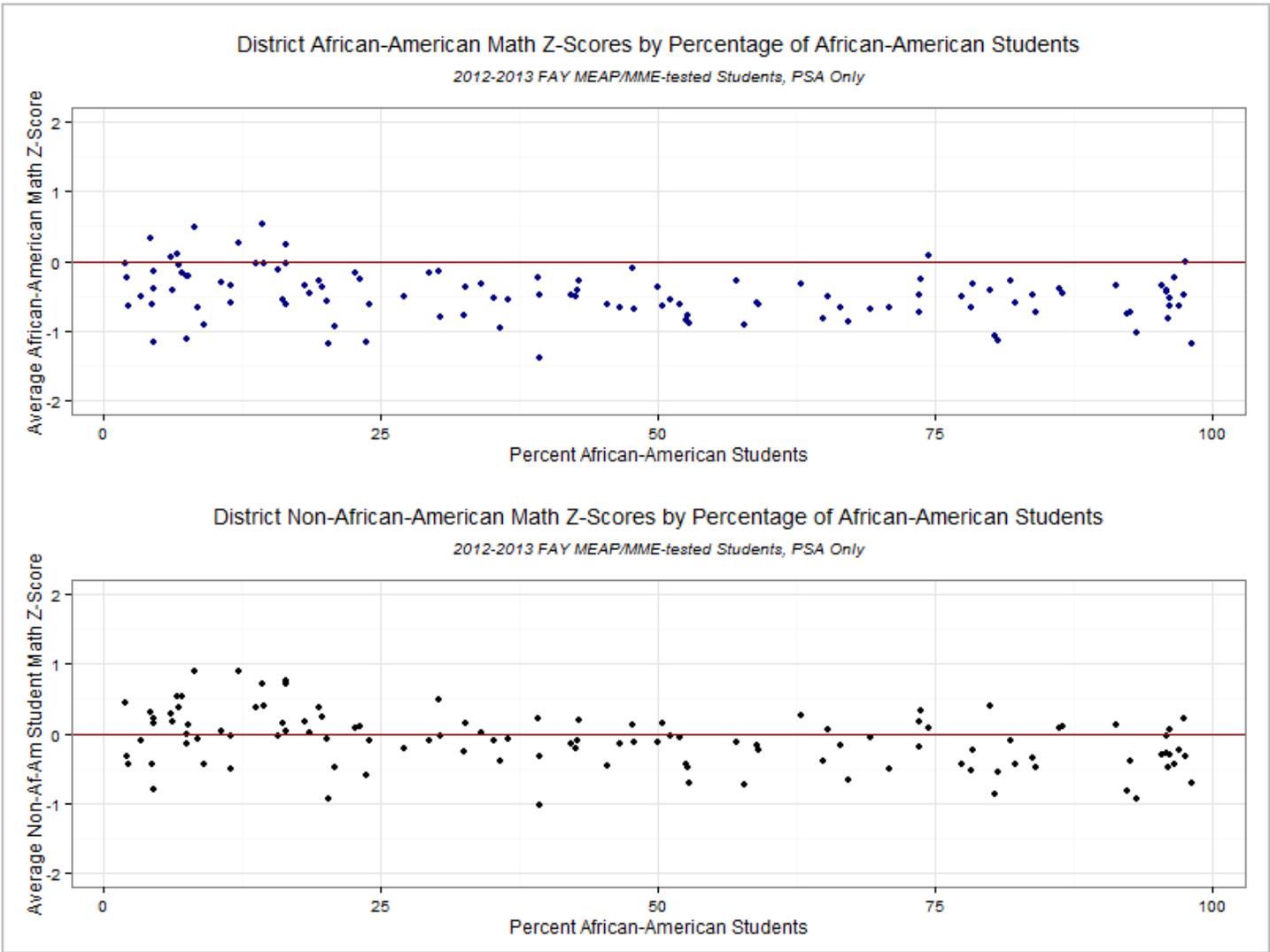


Figure 10. Percentage African-American students and District Average MEAP/MME Math performance for African-American and Other students, PSA Only (FAY students) 2012-2013

Figures 11 through 13 show the same information as Figures 8-10 for reading, with similar results.

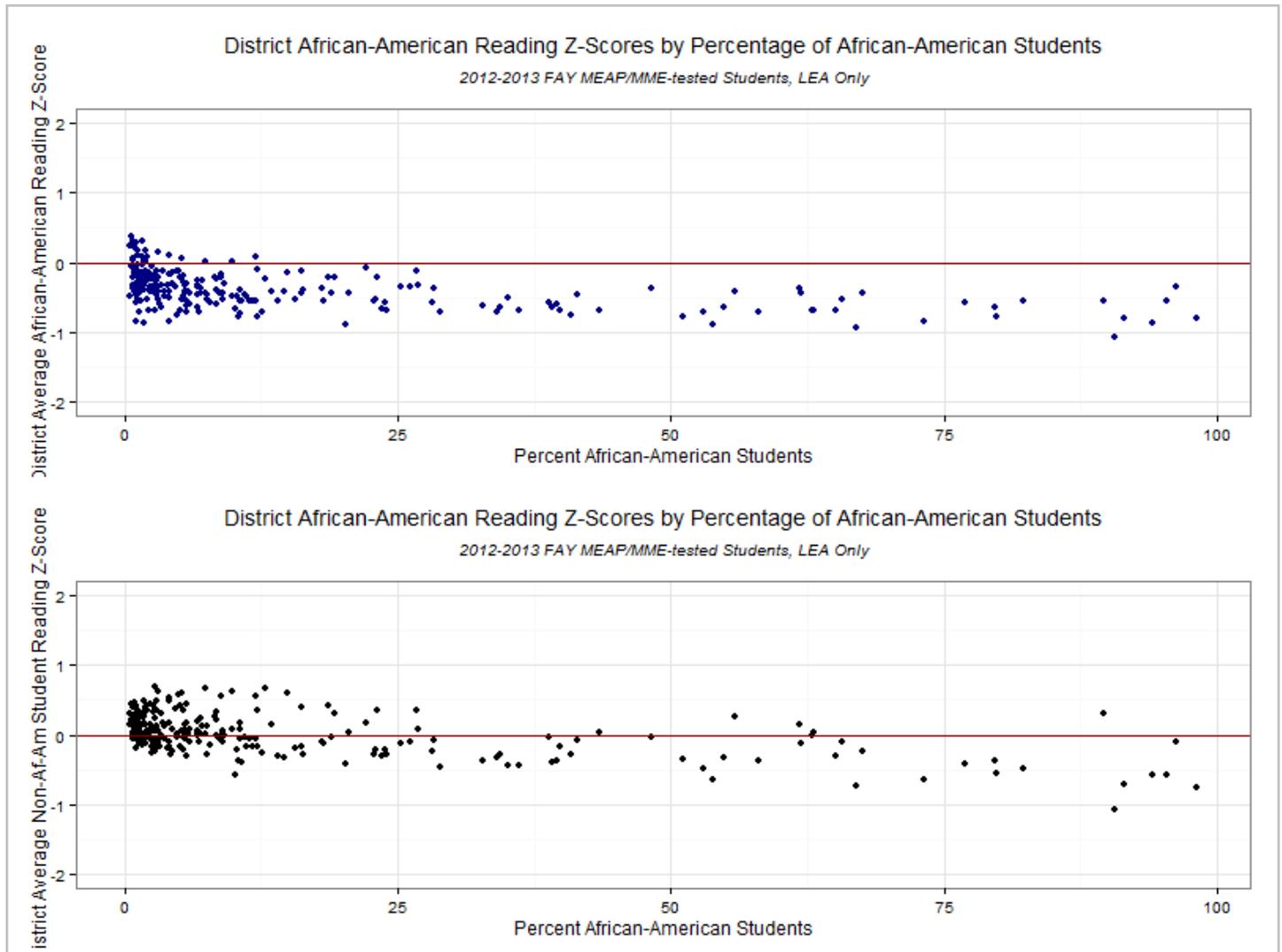


Figure 11. Percentage African-American students and District Average MEAP/MME Reading Performance for African-American and Other students (FAY students) 2012-2013

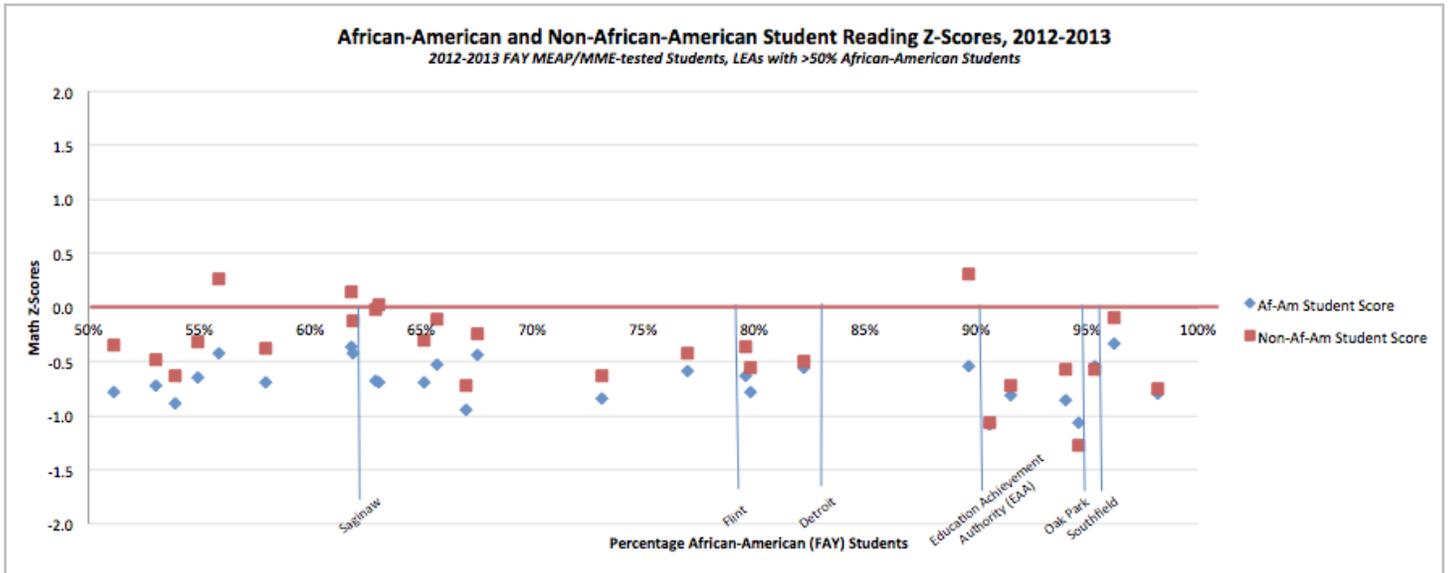


Figure 12. Percentage African-American students and District Average Reading performance for African-American and Other Students: Districts with greater than 50% African-American student populations. (FAY students, MEAP/MME) 2012-2013

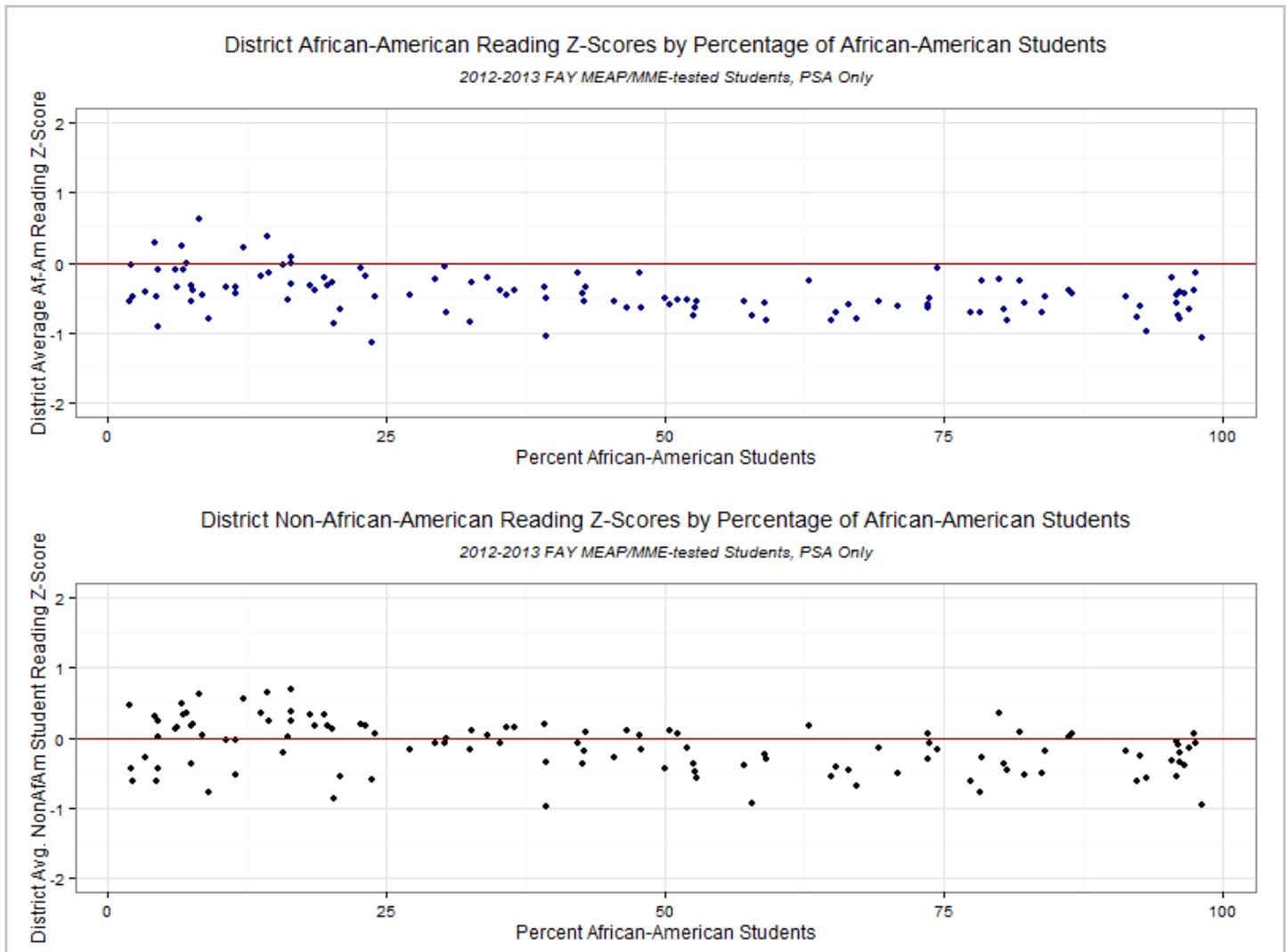


Figure 13. Percentage African-American students and District Average MEAP/MME Reading performance for African-American and Other students, PSA Only (FAY students) 2012-2013

Q5: Are there any patterns in Reading and Math Achievement at LEAs and PSAs? How are they related to concentration of African-American students?

The next several pages contain two series of graphs (one for LEAs and one for PSAs) showing the relationship between math and reading scores. The first graph in each series is a simple plot of math and reading performance for all students, followed by graphs of African-American student performance and weighted plots of the same, based on percentage of African-American students.

Starting with LEAs, Figure 14 shows district average math score on the horizontal axis and average reading score on the vertical axis. As typical with group achievement scores, there is a close relationship between math and reading scores.

Four smaller areas or quadrants are defined by the vertical and horizontal lines through the state average (“0”), and are numbered for ease of description.

- Quadrant 1: District average reading scores are higher than the state average, but average math scores are below the state average.
- Quadrant 2: District average scores are higher than the state average in both math and reading.
- Quadrant 3: District average math scores are higher than the state average, but average reading scores are below the state average.
- Quadrant 4: District average scores are lower than the state average in both math and reading.

The points in the graph are well distributed above and below the state average, with the vast majority of districts in Quadrant 2 or Quadrant 4. In other words, most districts are above average in both math and reading or below average in both subjects. The ten districts with the highest numbers of African-American students (though not necessarily highest percentages) are labeled on the graph. All of these districts had average scores below the state average in both math and reading.

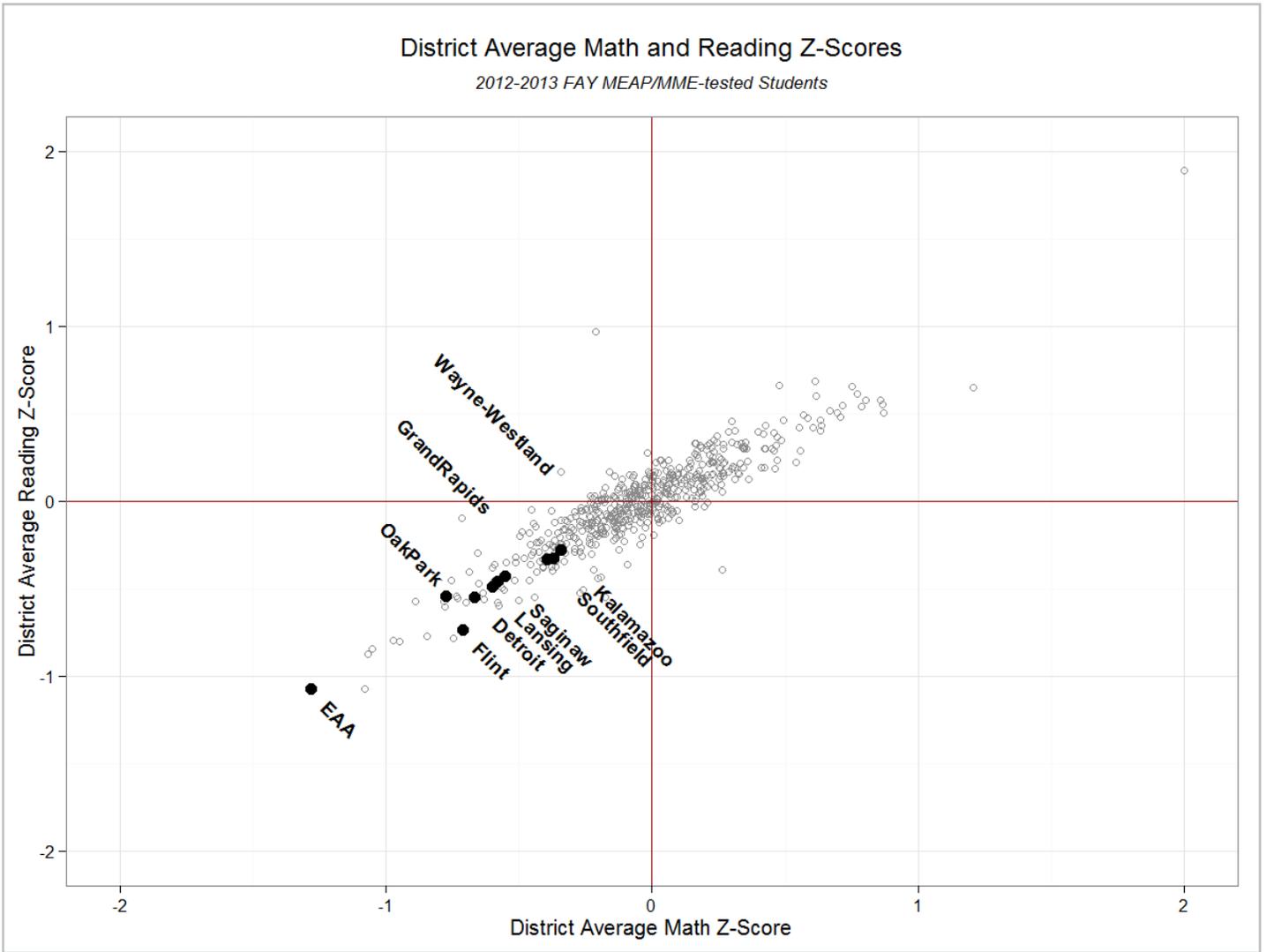


Figure 14: LEA District Average MEAP/MME Math and Reading Z-Scores (*FAY* students) 2012-2013

Figure 15 is the same graph as Figure 15 except that rather than showing average scores for all students, the points represent the district averages for African-American students only. The graph has a similar shape to Figure 15, but the points are slightly more spread out. More specifically, it seems that higher reading scores for African-American students are not as closely tied to high math scores. Achievement is also lower in both math and reading.

When looking at African-American achievement separately, the order of the ten districts with highest numbers of African-American students changes somewhat. African-American students in Grand Rapids Public Schools actually performed less well than most of the other districts with large numbers of African-American students, while Southfield Public Schools African-American students performed best compared to other students statewide. There also appears to be a number of districts whose African-American students scored lower than EAA students in either math or reading (or both).

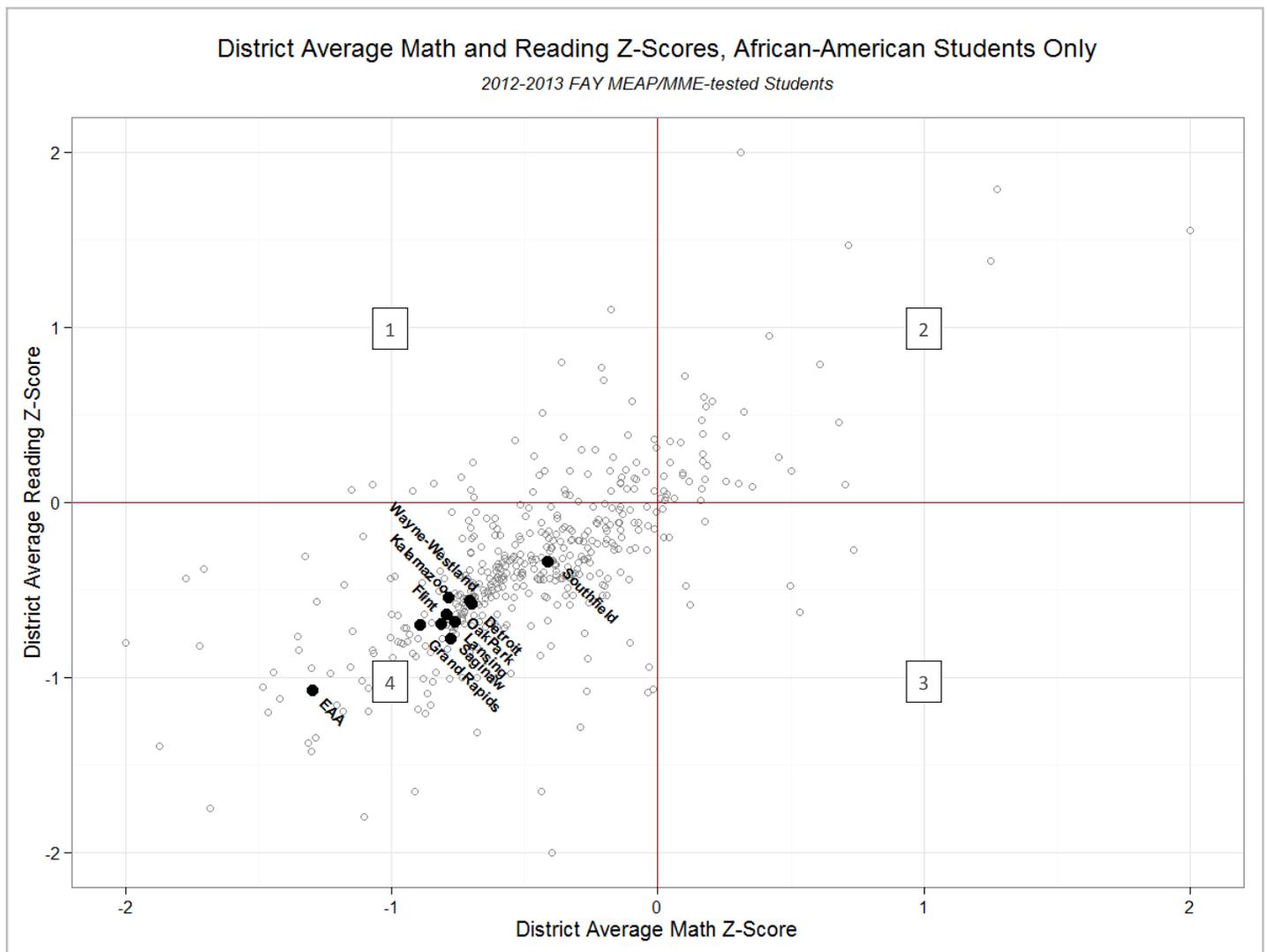


Figure 15: LEA District Average MEAP/MME Math and Reading Z-Scores, African-American FAY Students Only 2012-2013

Figure 16 is also similar to Figure 15, i.e. district averages are presented for all students, but each point is weighted by percentage African-American such that the circles are larger for districts with higher percentages of African-American students. The legend provides reference points for interpreting the size of the bubbles. The largest bubbles (representing districts with largest percentages of African-American students) are approximately 75% African-American, while the smallest bubbles are less than 25% African-American. From this graph it is clear that the districts with larger percentages of African-American students are clustered in the lower left quadrant, where both math and reading scores are less than the state average.



Figure 16. LEA District Average MEAP/MME Math and Reading Z-Scores, *FAY* Students (Weighted) 2012-2013

Last in the series, Figure 17 shows district average test scores for African-American students only. While there are some districts in all quadrants - including Quadrant 2, where African-American students scored above the state average on both assessments - all districts outside of Quadrant 4 have small percentages of African-American students.

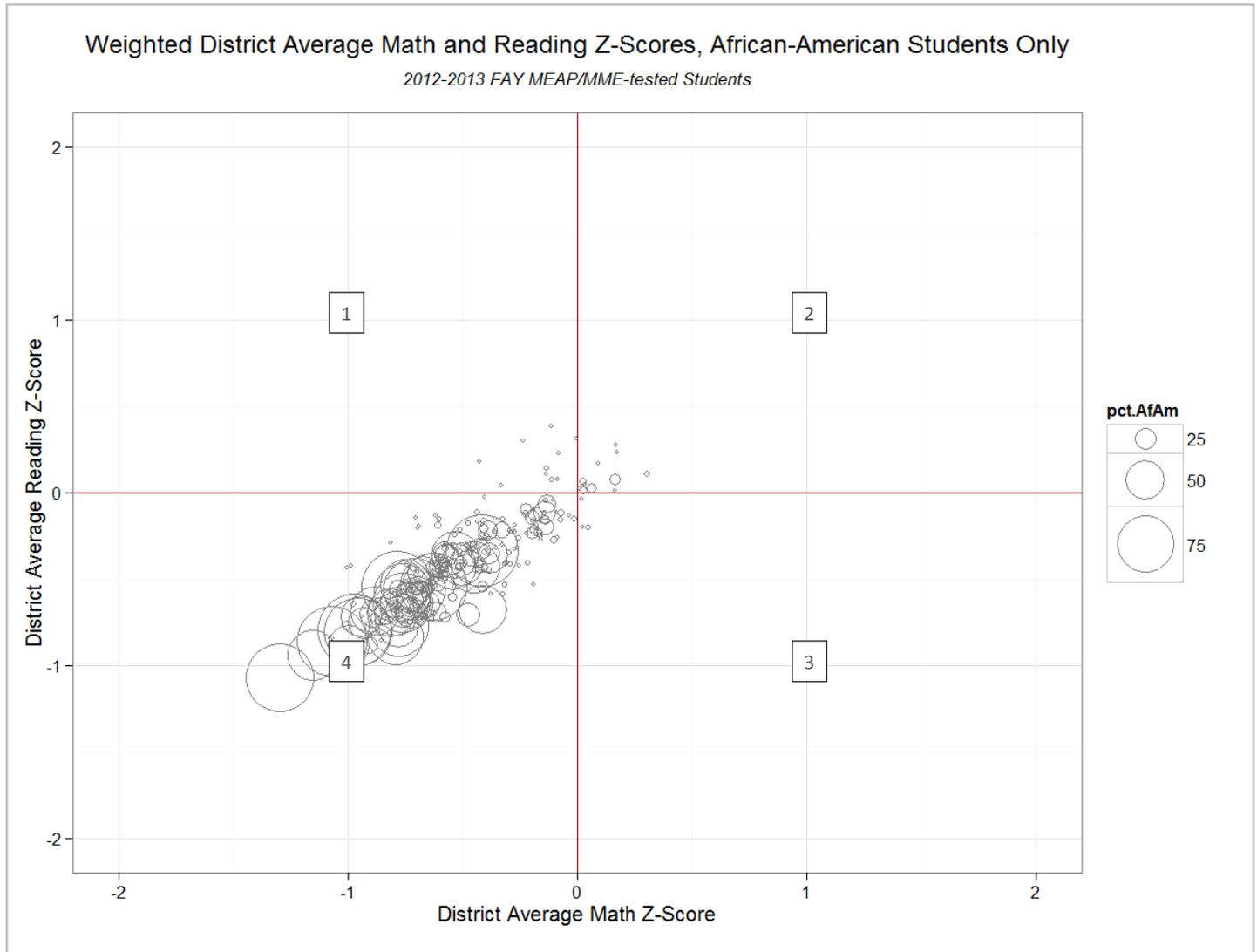


Figure 17. LEA District Average MEAP/MME Math and Reading Z-Scores, African-American FAY Students Only (Weighted) 2012-2013

PSA

Figures 18 through 21 present the same information as the previous four graphs, only for PSAs.

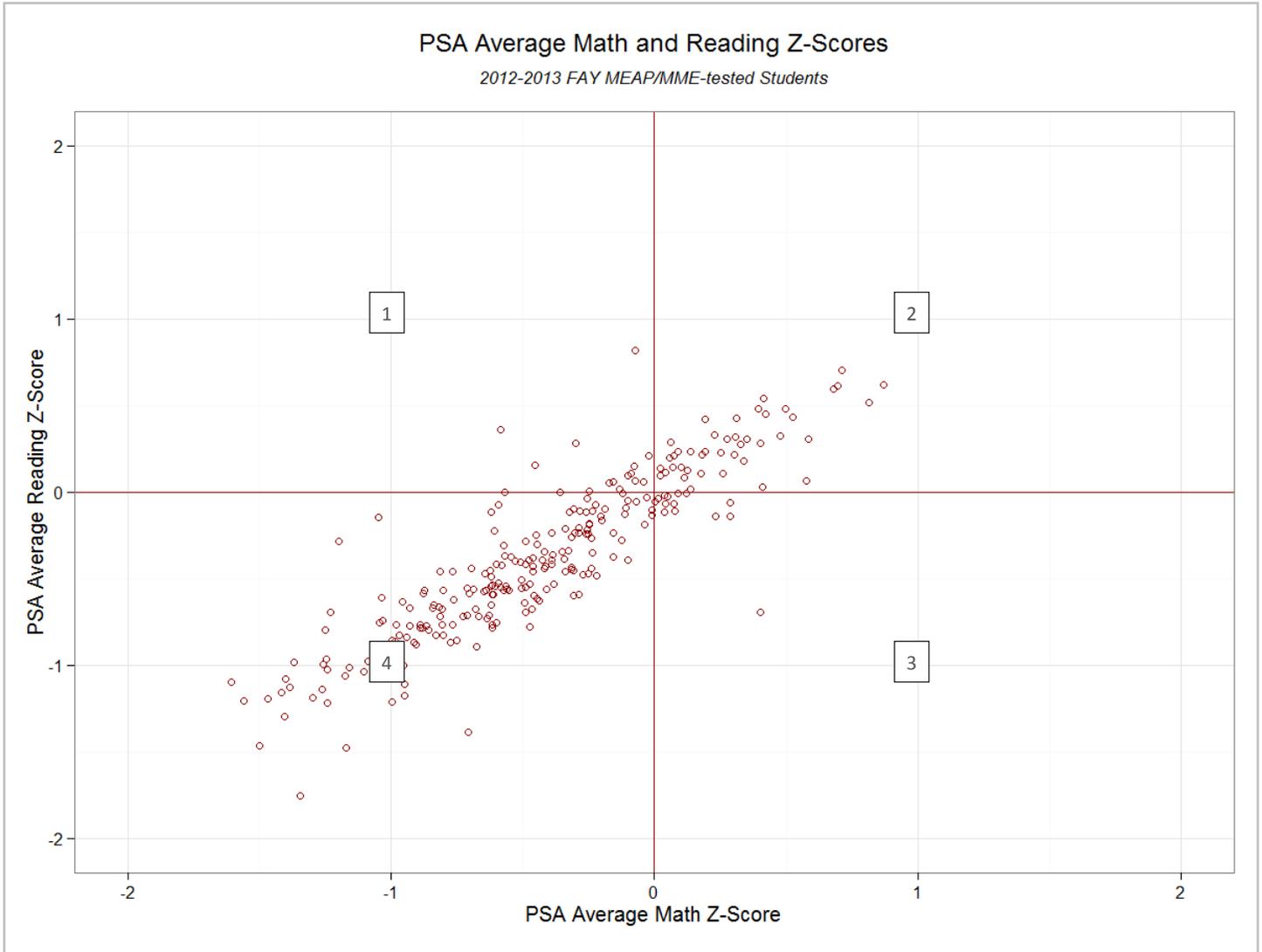


Figure 18. PSA District Average MEAP/MME Math and Reading Z-Scores (*FAY* students) 2012-2013



Figure 19. PSA District Average MEAP/MME Math and Reading Z-Scores, African-American FAY Students Only 2012-2013

Figures 18 and 19 show that the relationship between achievement data and percentage of African-American students is similar to that for LEAs, but shifted slightly down and to the left. This means that overall, PSA student average scores are lower in both reading and math.

Weighted PSA Average Math and Reading Z-Scores

2012-2013 FAY MEAP/MME-tested Students

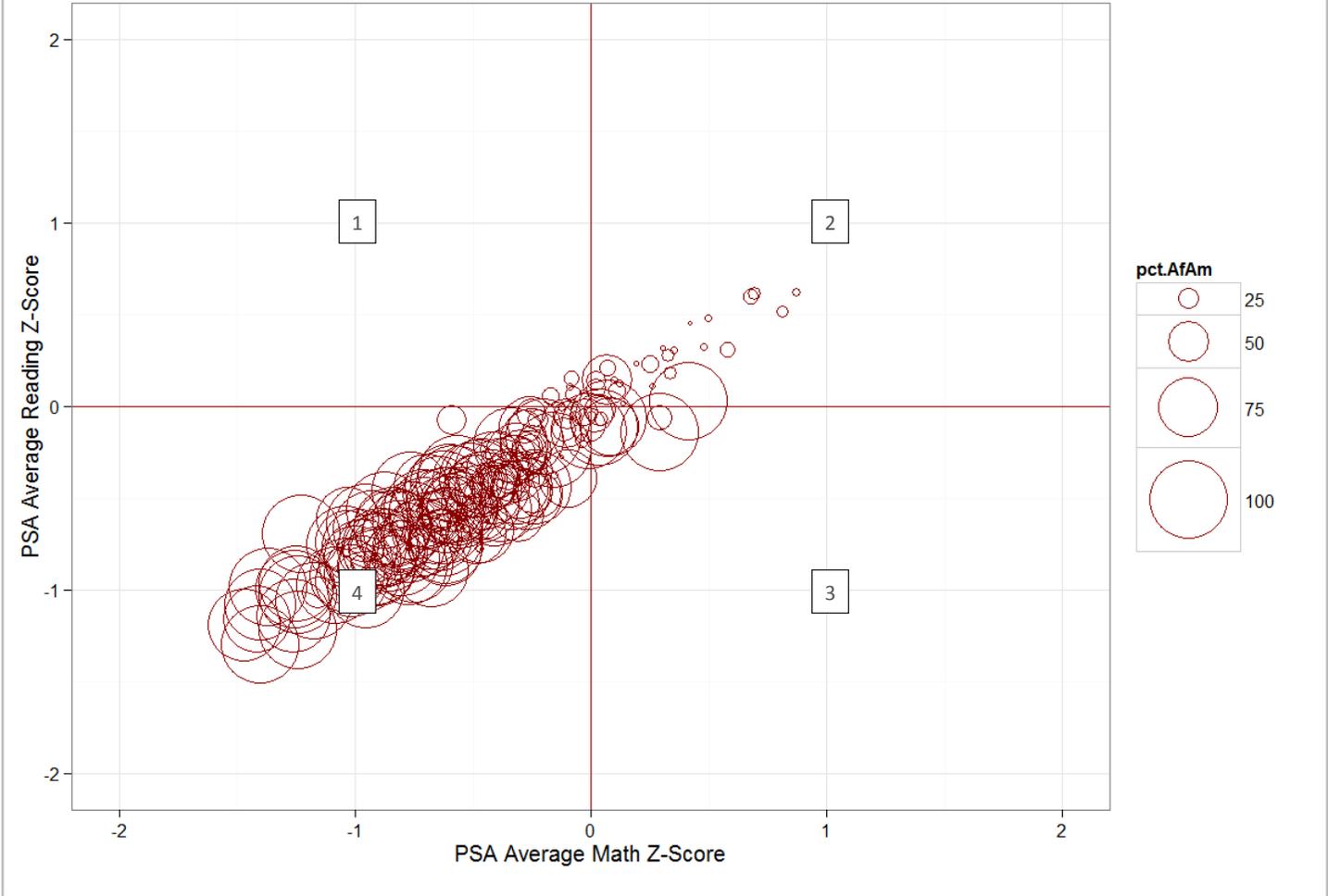


Figure 20. PSA District Average MEAP/MME Math and Reading Z-Scores, All FAY Students (Weighted) 2012-2013

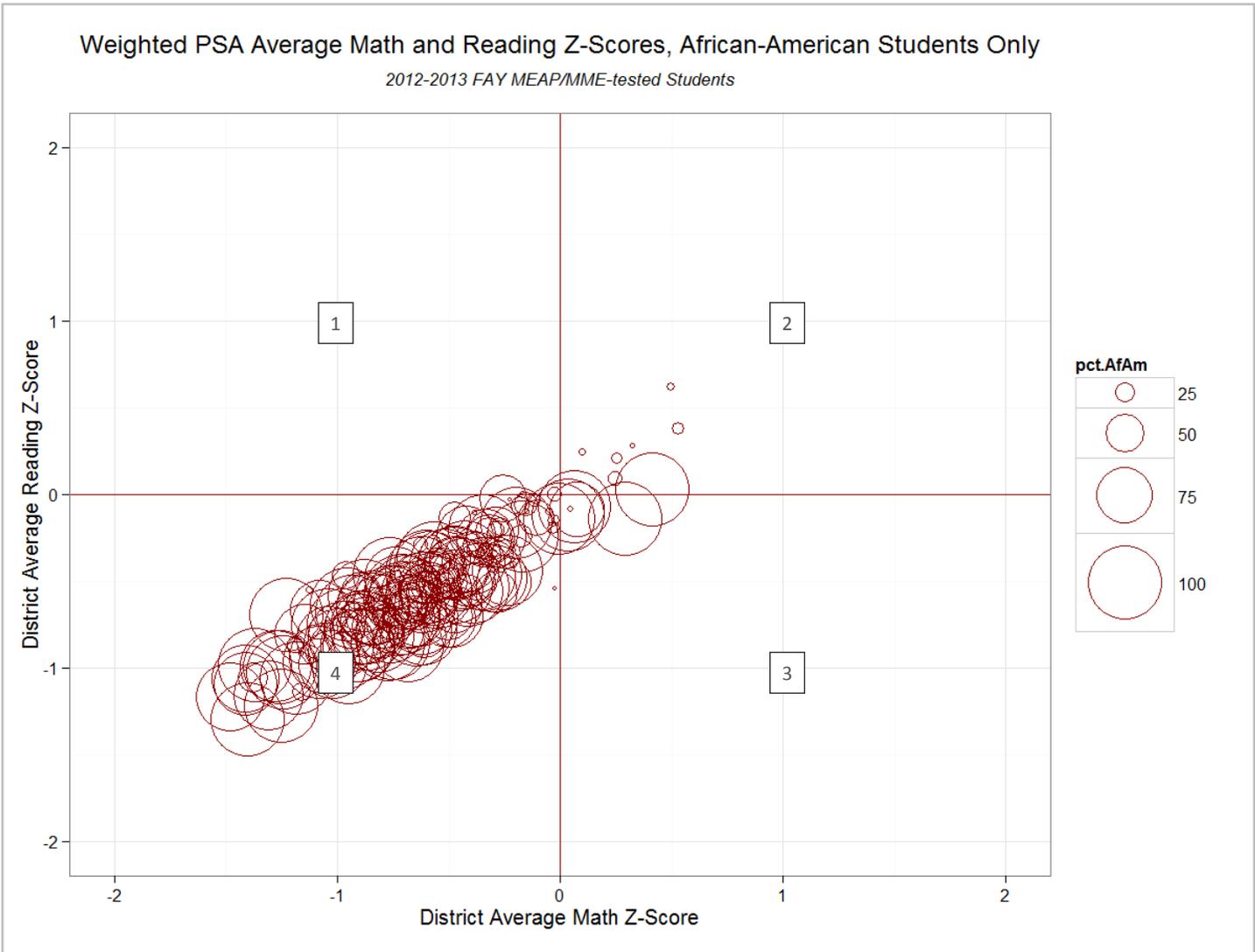


Figure 21: PSA District Average MEAP/MME Math and Reading Z-Scores, African-American FAY Students Only (Weighted) 2012-2013

There is actually little difference between Figures 20 and 21, largely because the percentage of African-American students is higher in many PSAs than in LEAs, as shown in Table 1. This means that there is more overlap between the graph for all PSA students and the graph for African-American PSA students only. The higher percentage of African-American students in PSAs is also reflected in the legend, which has a reference bubble for 100%.

For PSA districts, again the bulk of average African-American scores are found in Quadrant 4, below the state average in both math and reading. Of those in other quadrants, most have small percentages of African-American students.

Q6. How do **gaps** in math and reading correlate with concentration of African-American students?

Figure 22 is a plot of average z-score **gaps**¹¹ in reading and math¹². The size of the circles represents the percentage of African-American (FAY) students in the district. Negative values mean that African-American students scored lower than other students while positive values mean that African-American students scored on average higher than other students.

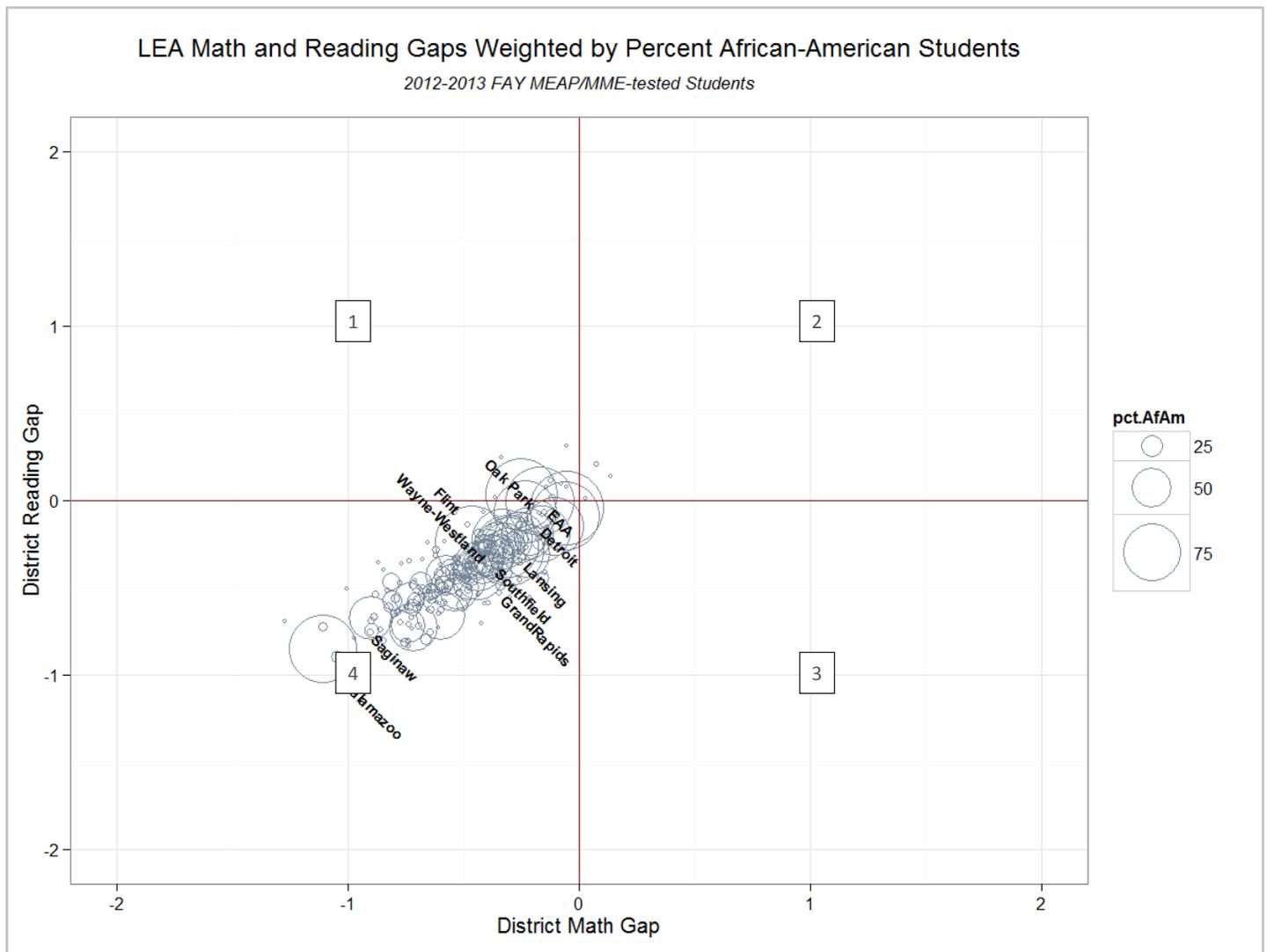


Figure 22. District (LEA) Average MEAP/MME Math and Reading Z-Score Gaps, FAY Students 2012-2013

Four smaller areas or quadrants are defined by the vertical and horizontal lines through zero (no gap), and are numbered for ease of description.

- Quadrant 1: African-American students scored higher than other students in reading but scored lower than other students in math.
- Quadrant 2: African-American students scored higher than other students in both math and reading.
- Quadrant 3: African-American students scored higher than other students in math but scored lower than other students in reading.
- Quadrant 4: African-American students scored lower than other students in both math and reading.

¹¹ The achievement gap calculated here is not the same as the one calculated for Top-to-Bottom (TTB) rankings. TTB uses the difference between the top scoring 30% and bottom scoring 3% within school, and does not take race/ethnicity into account; there is no district calculation. For this brief, the achievement gap is calculated between African-American students and Other Students by district.

¹² For the gap graphs Figures 23 and 24, districts with fewer than ten African-American students or fewer than ten Other Students are omitted.

Almost all districts lie in Quadrant 4, where African-American students scored lower in both reading and in math than other students. There is one LEA in Quadrant 2, where African-American students on average scored *higher* than other students in both math and reading, but this LEA has a very small percentage of African-American students.

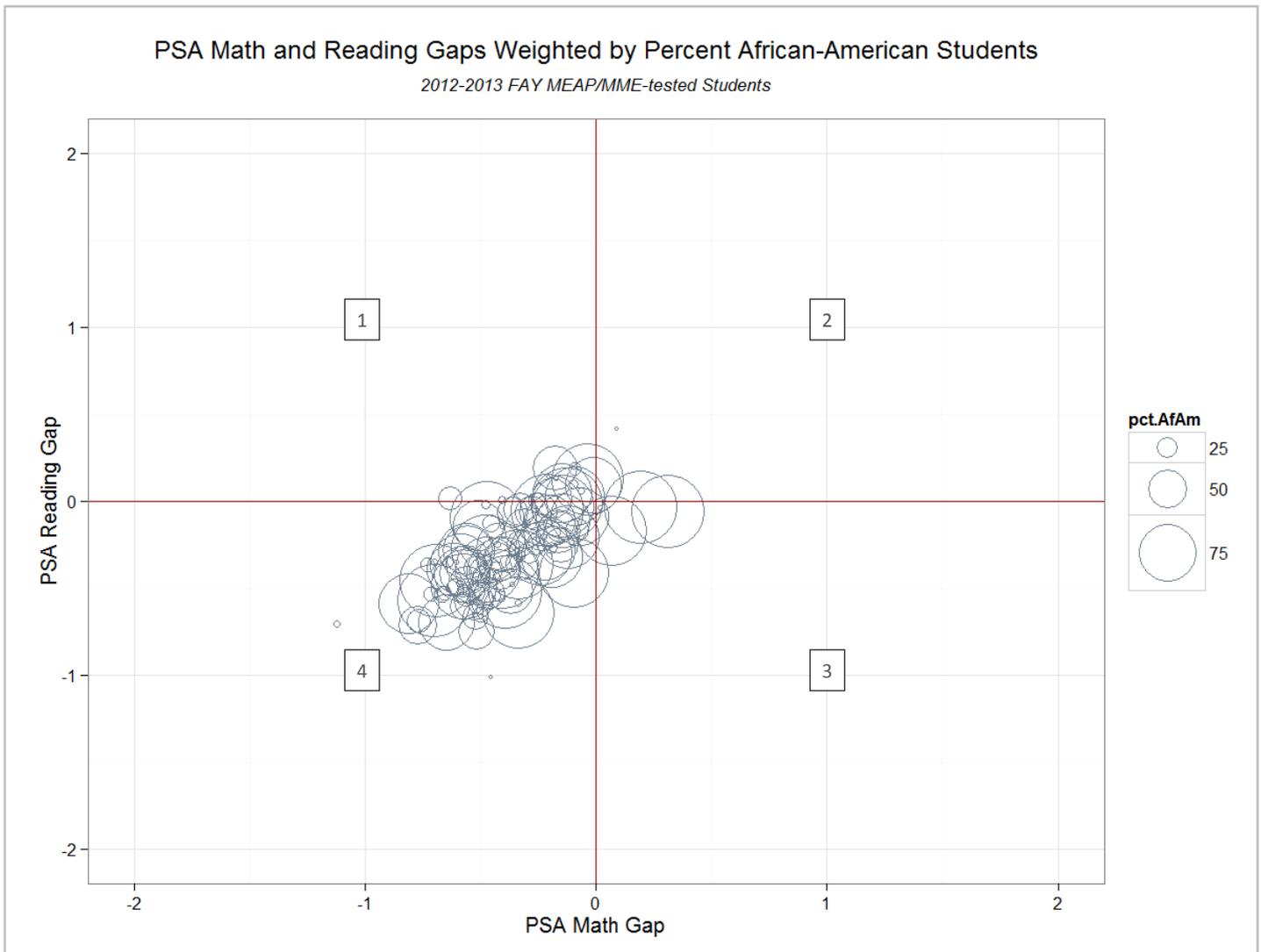


Figure 23. District (PSA) Average MEAP/MME Math and Reading Z-Score **Gaps**, FAY Students 2012-2013

Figure 23 shows gaps for PSA schools. A number of PSA schools are not shown on the graph because there were fewer than ten non-African-American students (or fewer than ten other students). The remaining districts are closely clustered, mostly in the fourth quadrant, with African-American students having scored up to one standard deviation below other students in math and reading¹³.

Conclusion and Recommendations

Education leaders have already identified that African-American students in Michigan, as in much of the nation, are underperforming their peers. As a group they perform below the state average and many are leaving school without meeting the expectations of career-and-college ready preparation. The overall story presented in this brief, reinforced through all of the analyses, is that when we focus on the district level, the percentage of African-American students in a district is negatively correlated with student performance, as a whole and for the African-American subgroup.

¹³ The restriction to at least ten in both the “African-American” and “Other Students” categories drops schools mostly in Quadrants 3 and 4, more negative than the schools pictured. There could be any number of reasons for greater gaps at more homogenous and/or smaller PSA schools and might be grounds for future study.

The maps presented at the beginning of the brief show that African-American achievement is not an issue that only applies to one or two districts. Many districts in Michigan have some African-American students. Strategies to close the gap will obviously differ in districts with higher percentages than in districts with lower percentages, as well as depending on how students are grouped into individual schools¹⁴.

Where annotated, the focus on the top ten districts by number African-American students has not been to criticize but to pinpoint districts in which focus and correction of performance deficits among African-American students would have significant impact on large numbers of children in Michigan. Currently, the African-American students in all of those districts score below the state average in both math and reading.

Public School Academies (PSAs) in general are presumably established to provide options outside of the regular district schools. It is assumed that they have taken on the challenge of raising achievement. While recognizing that these metrics do not take into consideration growth (i.e. the difference in achievement from the time of entering the school until present), and that PSAs often knowingly take on significant educational challenges, the information in this brief suggests that many still have a ways to go in changing the achievement patterns of African-American students: the data suggest that many of the academies more or less replicate the district pattern in both segregation and low scores for African-American students. There are some exceptions, as noted in Figures 6 and 7; several PSAs with high percentages of African-American students are scoring above LEA averages.

So where do we go from here? These numbers warrant:

- A deeper look at schools within districts to find out what at the school level might be driving district achievement patterns.
- Learning lessons from districts with higher levels of proficiency and high percentages of African-American students.
- Review of - and policy support for - explicit African-American achievement gap closure strategies by districts with large numbers of African-American students.

Current Research

This research brief has presented results based on accountability data, which by necessity measure final outcomes of the educational process but do not provide much information as to what is happening in schools and districts to contribute to the achievement gaps shown. There are research projects underway in the department to get more fine-grained data at these levels.

- The Office of Evaluation, Strategic Research and Accountability (OESRA) has recently established projects around differential course taking (e.g. AP courses, higher level math, and overall enrollment credits) by socio-economic status and race/ethnicity.
- The School Reform Office (SRO) is conducting research into practices leading to improvement in priority schools (72% of priority school students in 2012-2013 were African-American), in addition to providing ongoing support to these schools to improve achievement.
- The Office for Educational Innovation and Improvement (OEII) is implementing a three-year initiative, the African-American Young Men of Promise Initiative (AAYMPI). This initiative is aimed at improving school success for African-American male students. More information can be found at: http://www.michigan.gov/mde/0,4615,7-140-6530_30334-297206--,00.html

It is hoped and expected that these research efforts will produce information to inform school and district level mechanisms that contribute to the achievement described in this brief, so that policy solutions can be devised to begin to lessen the gaps.

¹⁴ A separate policy brief entitled Quantifying the Achievement Gap presents 2012-2013 statewide statistics on African-American students in Michigan, and explains different types of achievement gap issues that could be present within schools. The brief is available on OESRA strategic research webpage: http://www.michigan.gov/mde/0,4615,7-140-22709_63924---,00.html

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Appendix

Table A1. Population Characteristics of Top Ten Districts by Number African-American students 2012-2013						
District Name	Total Number of Students (MiSchoolData)	Total Number of African-American Students (MiSchoolData)	Number of African-American students in full accountability population (student details) Grades 3-8 & 11	Number of African-American used in brief <i>Grades 3-8 & 11, FAY, MEAP & MME only</i>	Percentage of Total African-American Students represented in Brief	Percentage of Accountability African-American Students represented in Brief
Detroit City	50,172	42,051	25,611	15,604	37%	61%
Education A.A.	8,682	8,255	5,048	2,228	27%	44%
Southfield	7,423	7,083	4,599	3,267	46%	71%
Flint	8,599	6,747	4,128	2,448	36%	59%
Grand Rapids	17,444	6,054	3,654	2,228	37%	61%
Kalamazoo	12,627	5,542	3,533	2,441	44%	69%
Lansing	12,463	4,998	3,210	1,971	39%	61%
Saginaw	7,603	4,861	3,109	2,051	42%	66%
Oak Park	4,403	4,234	2,483	1,399	33%	56%
Wayne-Westland CSD	12,183	3,652	2,289	1,490	41%	65%

Table A2. Achievement Characteristics, All Students, African-American Students and Other Students for Top Ten Districts by Number African-American students 2012-2013

District Name	Percentage of African-American (in brief population)	Percent proficient in Reading (all tested grades)	Percent proficient in Math (all tested grades)	Average Math z-score	Average Reading z-score	Average African-American Math z-score	Average African-American Reading z-score	Average Other Student Math z-score	Average Other Student Reading z-score
Detroit City	82%	43%	15%	-0.67	-0.55	-0.71	-0.56	-0.47	-0.49
Education A.A.	91%	19%	3%	-1.28	-1.07	-1.30	-1.08	-1.13	-1.07
Southfield	96%	52%	23%	-0.40	-0.33	-0.41	-0.34	-0.05	-0.09
Flint	80%	34%	15%	-0.71	-0.74	-0.78	-0.78	-0.45	-0.55
Grand Rapids	34%	46%	20%	-0.58	-0.46	-0.89	-0.70	-0.42	-0.34
Kalamazoo	43%	53%	28%	-0.34	-0.28	-0.76	-0.68	-0.02	-0.04
Lansing	39%	45%	18%	-0.60	-0.49	-0.79	-0.64	-0.48	-0.39
Saginaw	63%	46%	21%	-0.55	-0.43	-0.82	-0.70	-0.10	-0.03
Oak Park	95%	42%	12%	-0.78	-0.54	-0.79	-0.54	-0.54	-0.58
Wayne-Westland CSD	28%	54%	26%	-0.37	-0.33	-0.70	-0.58	-0.24	-0.22

