

VI.G.

VOLUNTARY INTERDISTRICT CHOICE CORPORATION

REPORTS

2009 MAP TEST INDEX ANALYSIS

APRIL 23, 2010

Executive Summary

The accompanying analysis was prepared using the new 2009 MAP test index score data that is publicly available on the DESE web site. Only Communication Arts and Mathematics results are currently available. Because test results are not disaggregated by DESE for transfer students as a separate group, test scores for all African American students (which would include both residents and non-residents) in each district were used. Likewise, SLPS data represents overall averages since test results for magnet versus non-magnet schools are also not disaggregated. Districts that did not report data or whose number of minority students were below the subgroup reporting size requirement of 30 are not shown. Based on the districts for which data was reported, VICC computed a weighted average MAP index score for all county districts combined. Results of this analysis and possible conclusions are presented herein. As a general overall observation, VST students appear to consistently outscore black students remaining in the city every year at almost every grade level and content area tested. There are limitations in this analysis which are described below which we hope to be able to address in the future by conducting a more comprehensive student achievement study.

For the past few years, VICC has been analyzing MAP test scores based on information that is publicly available on the DESE website in an effort to get a sense of how transfer students in county schools are performing on state tests as compared to African American students who remain at SLPS. Because DESE only disaggregates test results based on race and school/district of attendance, results for transfer students as a separate group are not available. Instead, they are comingled with county resident black students' scores in each school/district. Even then, however, the number of students in a potentially reportable subgroup still sometimes falls below the minimum reporting threshold of 30 students, especially in districts with lower enrollments. As a result, there is no separate (disaggregated) data available on the website for some districts such as Affton, Bayless, Brentwood and Valley Park. (Ladue and Pattonville were also excluded from VICC's analysis since they have very few (or no) elementary or middle school level transfer students any longer.) For most other county districts, though, minority student counts do exceed the reporting threshold. Furthermore, the vast majority of such students are transfer students (not residents) so using the black subgroup results in total should be fairly representative of overall transfer students performance (with the possible exception of Kirkwood and Webster Groves which have a proportionately high resident minority student population.)

For purposes of VICC's 2009 analysis, the overall MAP Index scores for each content area and grade level tested are used. This is a change that was made a few years ago compared to previous analyses but was necessary since DESE revised the way in which it reports MAP test results beginning in 2006 (changed to a four performance level system compared to the previous five levels) and increased the frequency of testing (proficiency is now tested at more grade levels than in the past). As a result, the multi-year trend analysis that was previously available from 1998 through 2005 was restarted beginning with 2006 test results under the new reporting structure. In addition, 2009 is the first year that high school grades 10 and 11 have been replaced by E2 for Communications and A1 for Mathematics. Hence there are no prior year comparisons for such scores.

The MAP Index score represents a calculated composite based on the proportion of students at each of the four performance levels based on the following DESE formula:

$$\begin{aligned} \text{MAP Index} = & \quad \% \text{ at Level 1 (Below Basic)} * 600 \\ & + \% \text{ at Level 2 (Basic)} * 700 \\ & + \% \text{ at Level 3 (Proficient)} * 800 \\ & + \% \text{ at Level 4 (Advanced)} * 900 \end{aligned}$$

Consequently, all students tested are represented in the MAP index.

In reviewing the results of VICC's analysis, please take note of the following limitations:

- 1) County district test scores include both VST and resident black students as previously indicated;
- 2) SLPS test scores include both magnet and non-magnet black students;
- 3) No attempt is being made to assess any black-white achievement gap or do any other analysis across racial lines. Instead the focus is on the single issue of whether or not participating in the transfer program appears to make a difference in student achievement;
- 4) This is a very general analysis and many variables (such as student turnover, length of time in transfer program/current district, socioeconomic status, education level of parents, etc.) may influence the results. However, because of funding and data availability limitations, no attempt was made to control for such variables. Instead, the MAP index scores were simply taken in total as they were available and used without adjustment or statistical validation.

Because of these limitations, caution should be exercised in attempting to read too much into the results.

That being said, in spite of these limitations, a few observations can be made based on VICC's analysis. A multiple year "trend" can be simulated by 1) comparing different grade level test results for the same year and 2) comparing progressive grade levels between 2007 and subsequent years (e.g. comparing 2007 third graders to 2008 fourth graders or 2009 fifth

graders). Based on such comparisons, as illustrated in the accompanying graphs, it appears that similar conclusions to those based on previous MAP results can continue to be drawn:

- 1) Average MAP test scores for transfer students are higher than for black students remaining in SLPS. This is particularly noteworthy at the high school levels since SLPS's drop-out rate is relatively higher than for transfer students. If adjustments were made for what the MAP test scores for these drop-outs would have been, the "MAP gap" would almost certainly be even wider. However, it was noted that SLPS did perform quite well on the new high school grade E2 Communications Arts exam almost closing the gap with the County average. Unfortunately it cannot be determined if this is due to improvements in student achievement or due to the drop out of the lower performing students.
- 2) MAP test scores of black students in each individual district are higher than for black students remaining in SLPS at nearly every grade level and nearly every content area tested.
- 3) The MAP gap tends to widen as year-over-year test scores are compared for a specific group of students - - e.g. comparing 2007 third grade scores with 2008 fourth grade scores or 2009 fifth grade scores. In other words, the transfer program does appear to make a significant positive difference in black student achievement over time.

One significant difference compared to past analyses was also noted. Specifically, in past years, MAP test scores of transfer students versus black SLPS students at the third grade level (the earliest point at which the MAP test is given) were comparable in both Math and Communication Arts but thereafter began to predictably diverge at succeeding grade levels. This finding tended to refute the notion that county districts were draining the best and brightest students from SLPS, and instead, suggested the average transfer student began at about the same academic level as the average SLPS student. The MAP gap then began and grew over time from that initial point.

In both 2008 and 2009, however, transfer student MAP scores at the third grade initial testing level were already markedly higher than SLPS in both Math and Communication Arts. Rather than attributing this to selection preference, however, it may possibly be due to county districts' increasing tendency to enroll new students at even earlier grade levels than in the past. Recent enrollment numbers show more than three out of four spaces for new VST enrollments have been at the K-1 grade levels. This compares to fewer than half of new spaces being at the K-1 level in earlier years. In other words, transfer students are increasingly entering the VST program at earlier grade levels so that a MAP gap is arguably already beginning to form by the initial third grade testing level. Likewise, the apparent closing of the gap at the later high school grade levels could be attributable to SLPS's higher drop-out rate as the relatively low scores of dropouts would therefore be excluded from SLPS MAP test scores.

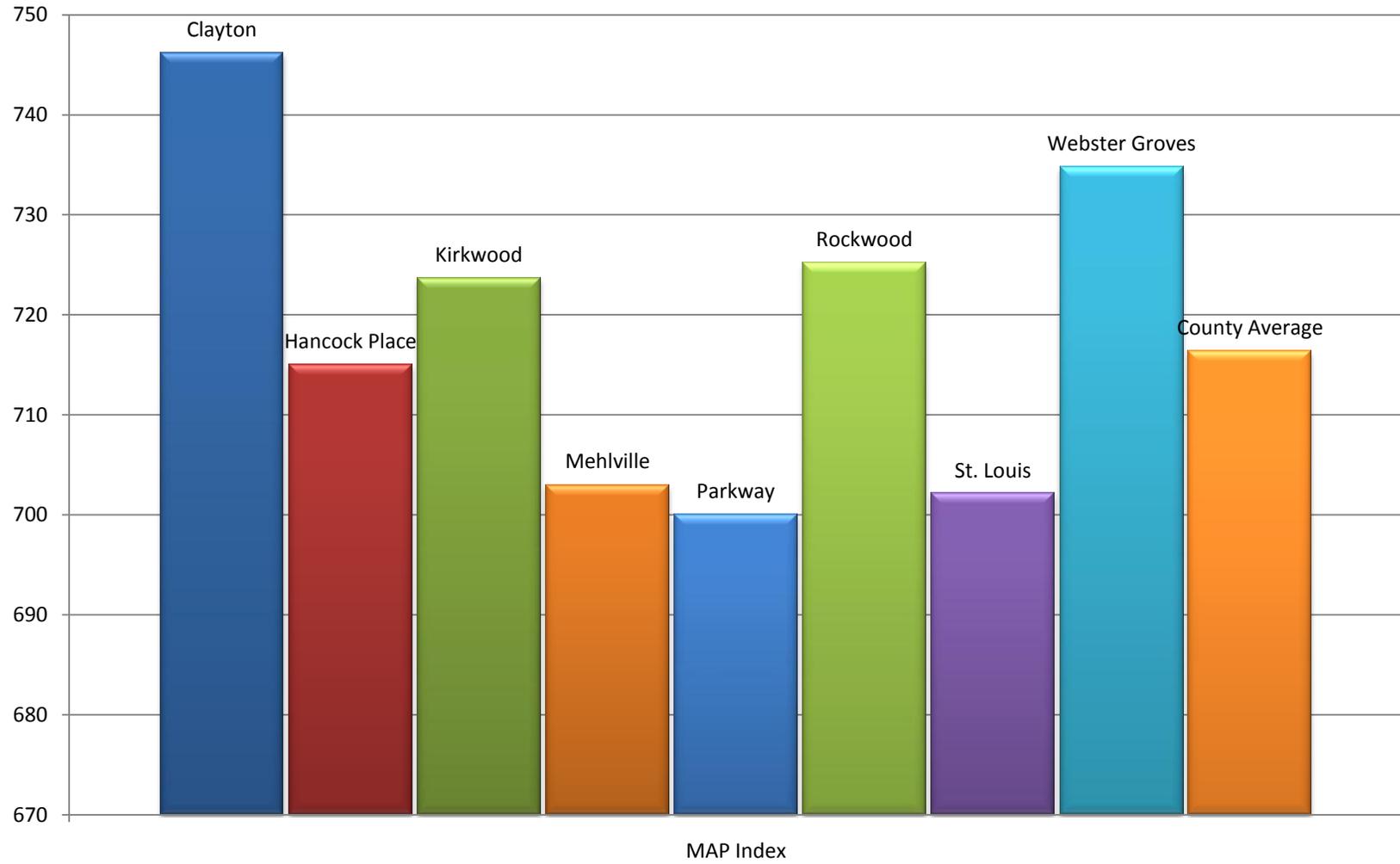
Conclusion

While using raw MAP test score data without adjustment does have inherent statistical limitations, the size of the sample populations is large enough, the time frame has been long enough and the overall trend has been consistent enough to at least suggest significant academic benefits (as measured by state standardized tests) result from being in the transfer program. These benefits are in addition to past studies which have shown both a higher graduation rate and a higher attendance rate for transfer students as well.

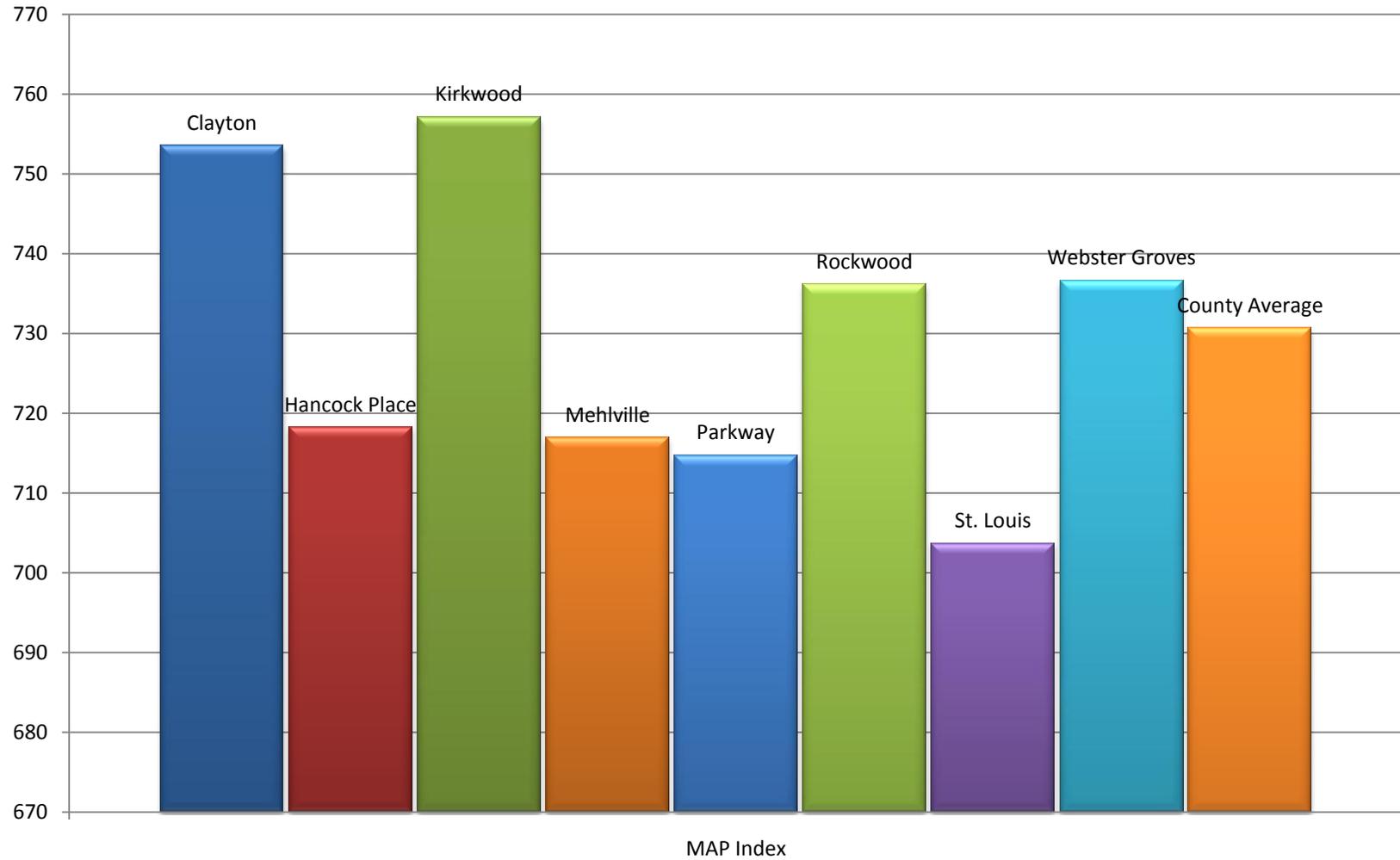
Attachments

Recommended motion report only; no action needed.

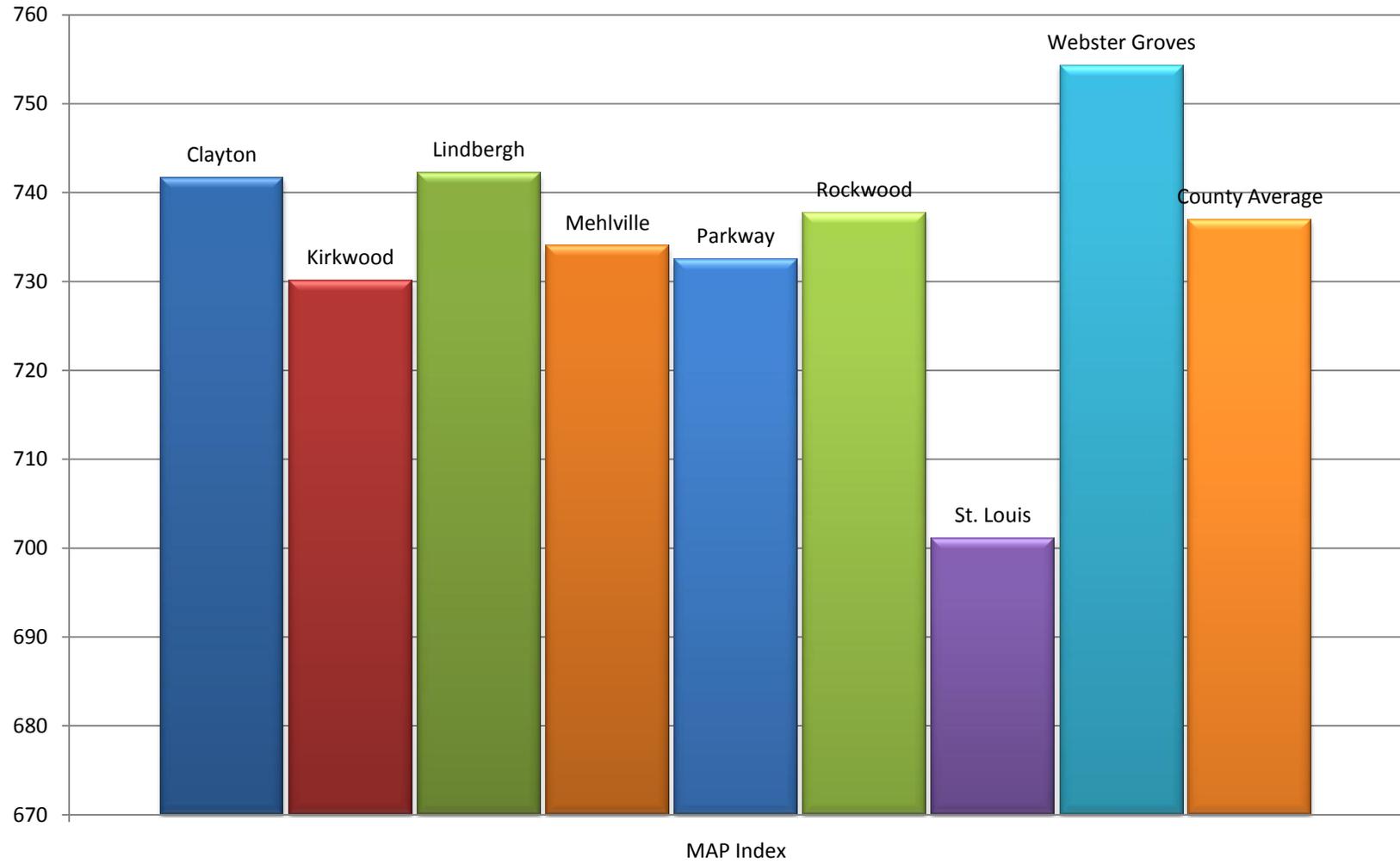
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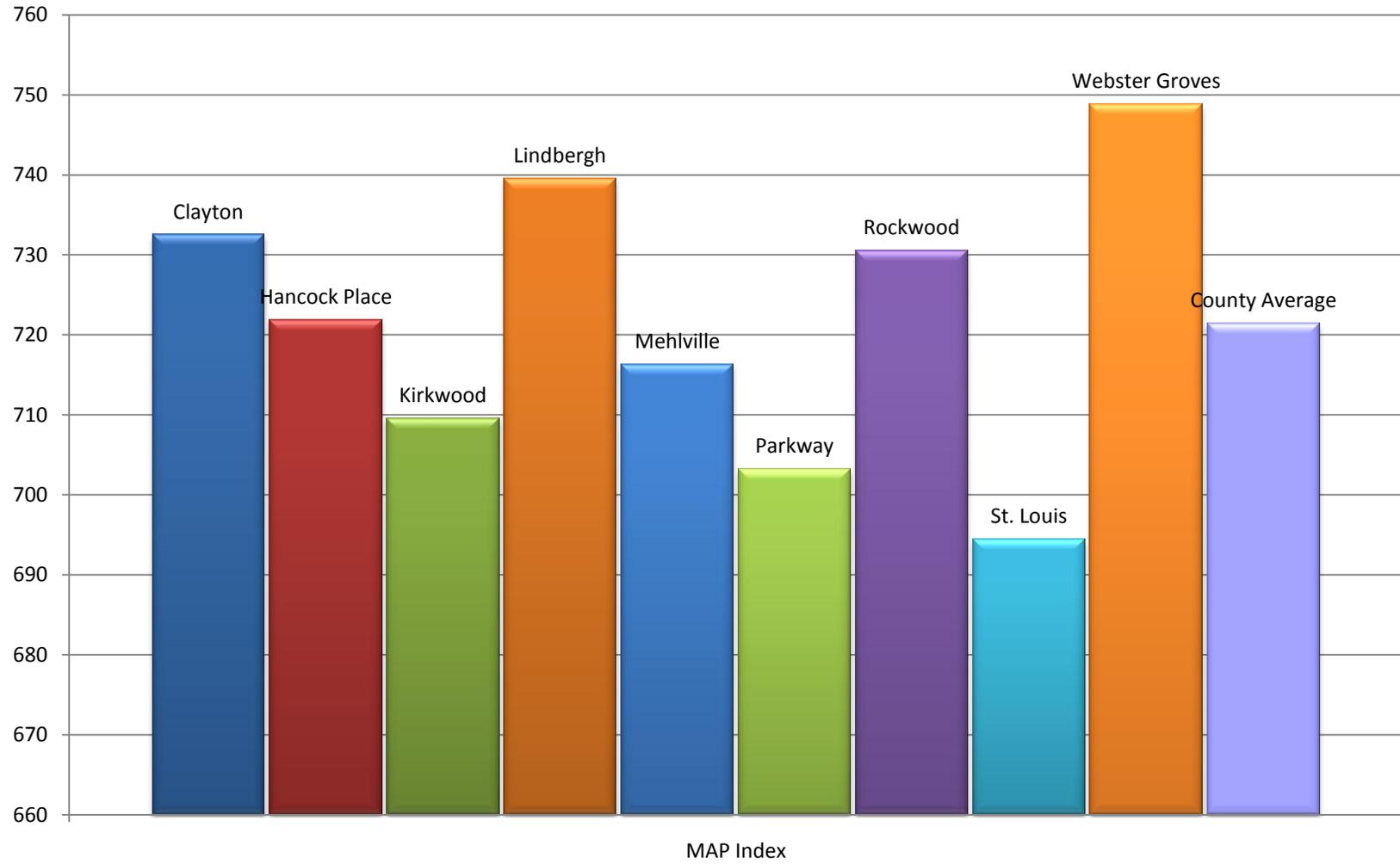
Communication Arts - Grade 4



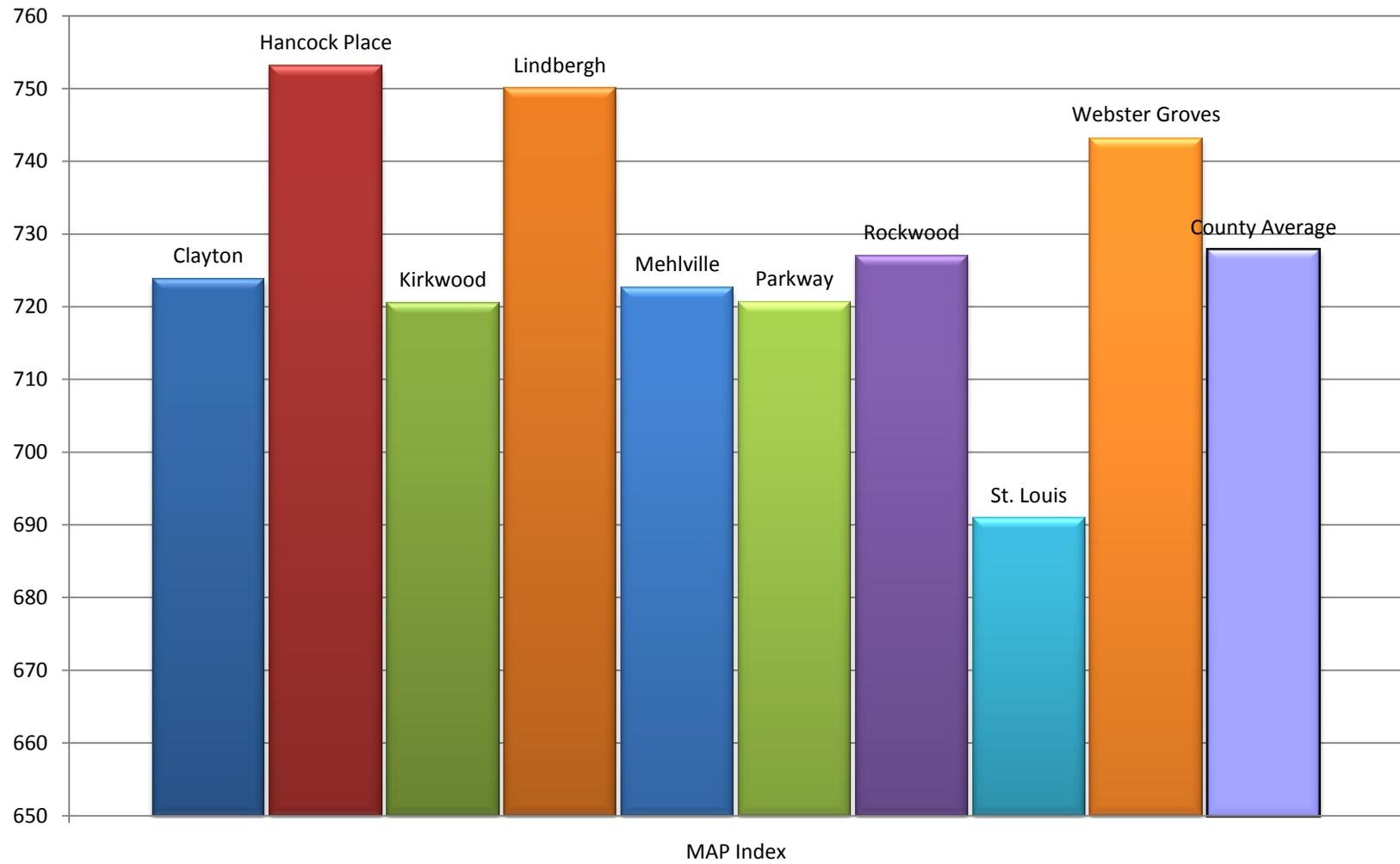
Communication Arts - Grade 5



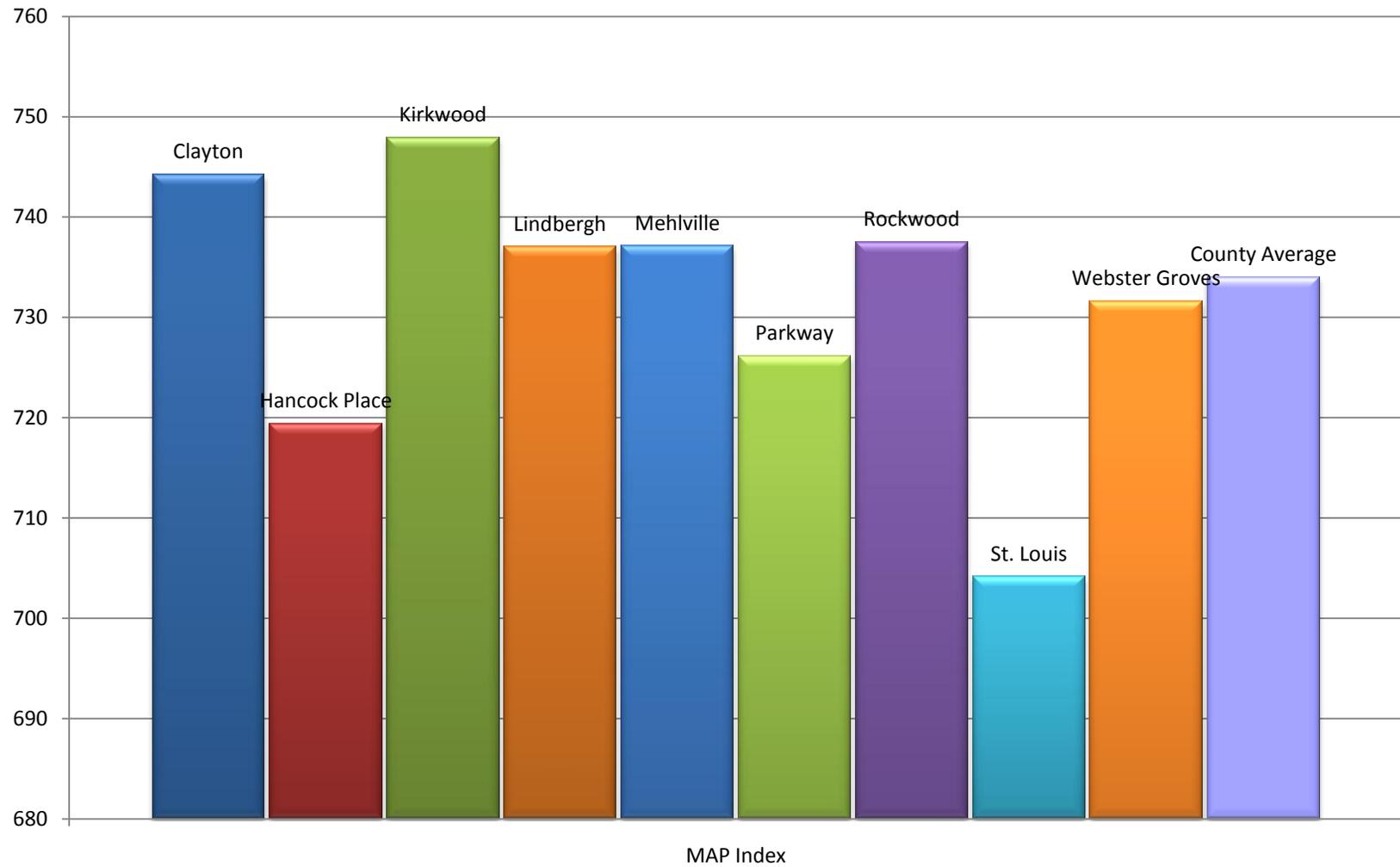
Communication Arts - Grade 6



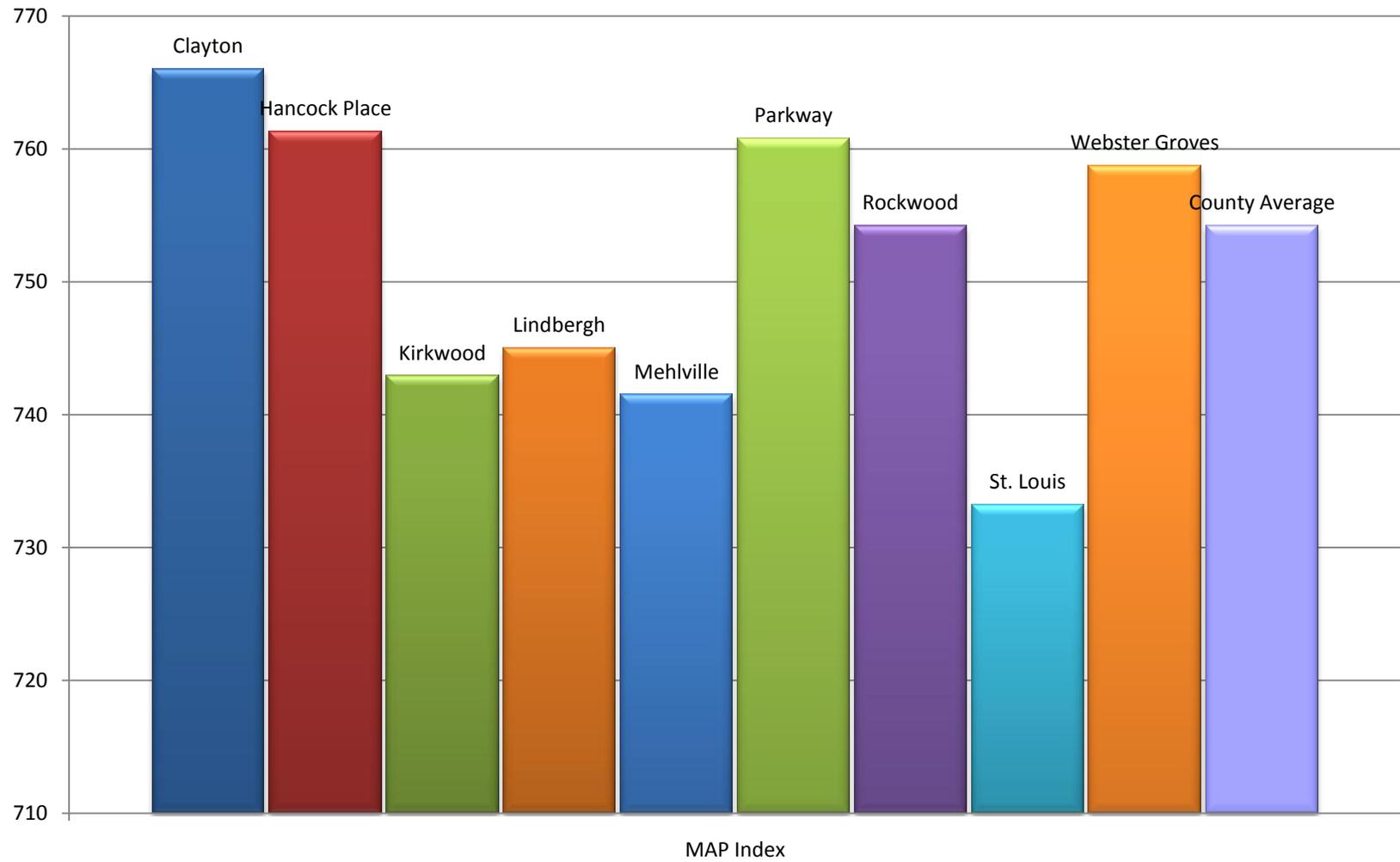
Communication Arts - Grade 7



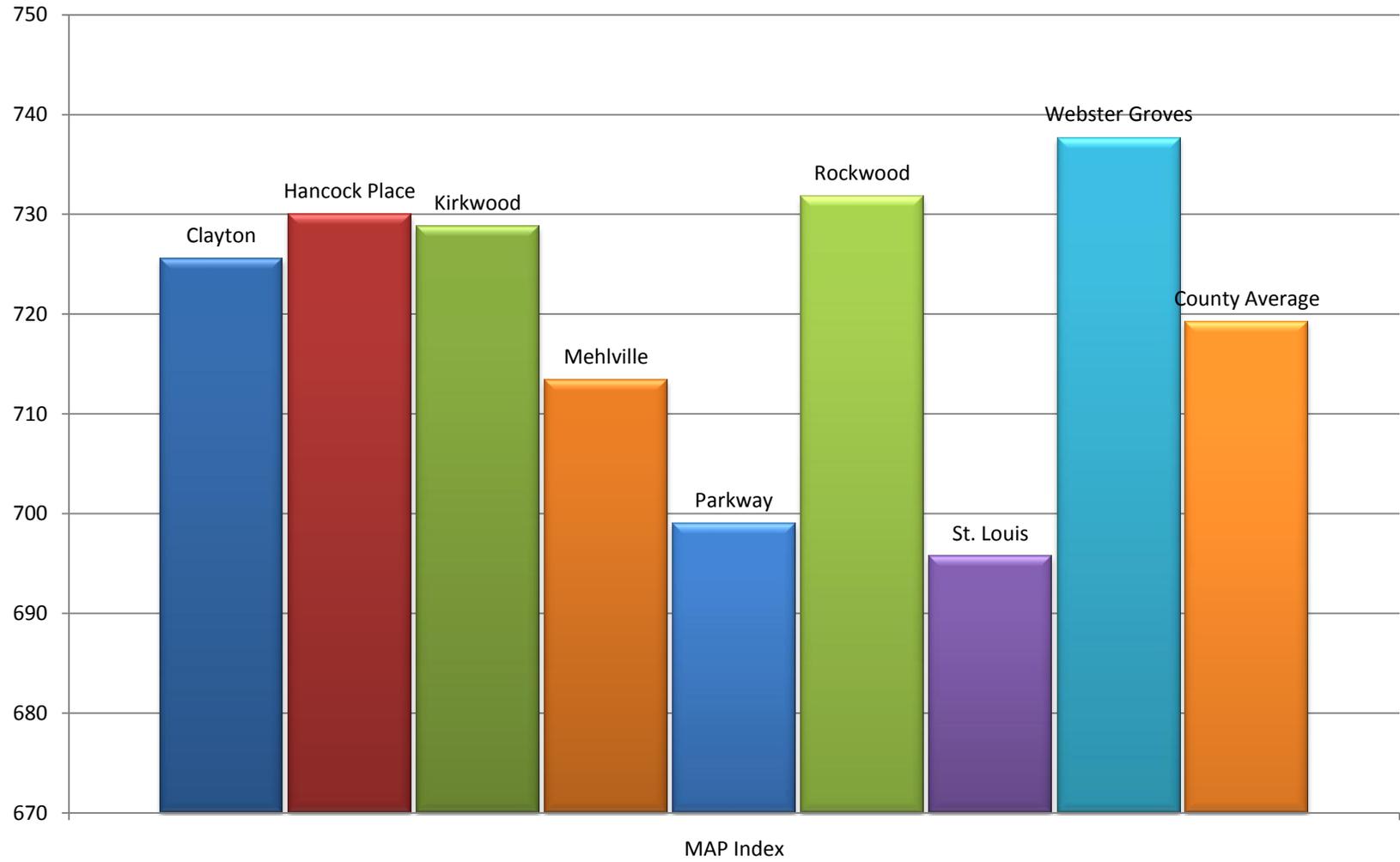
Communication Arts - Grade 8



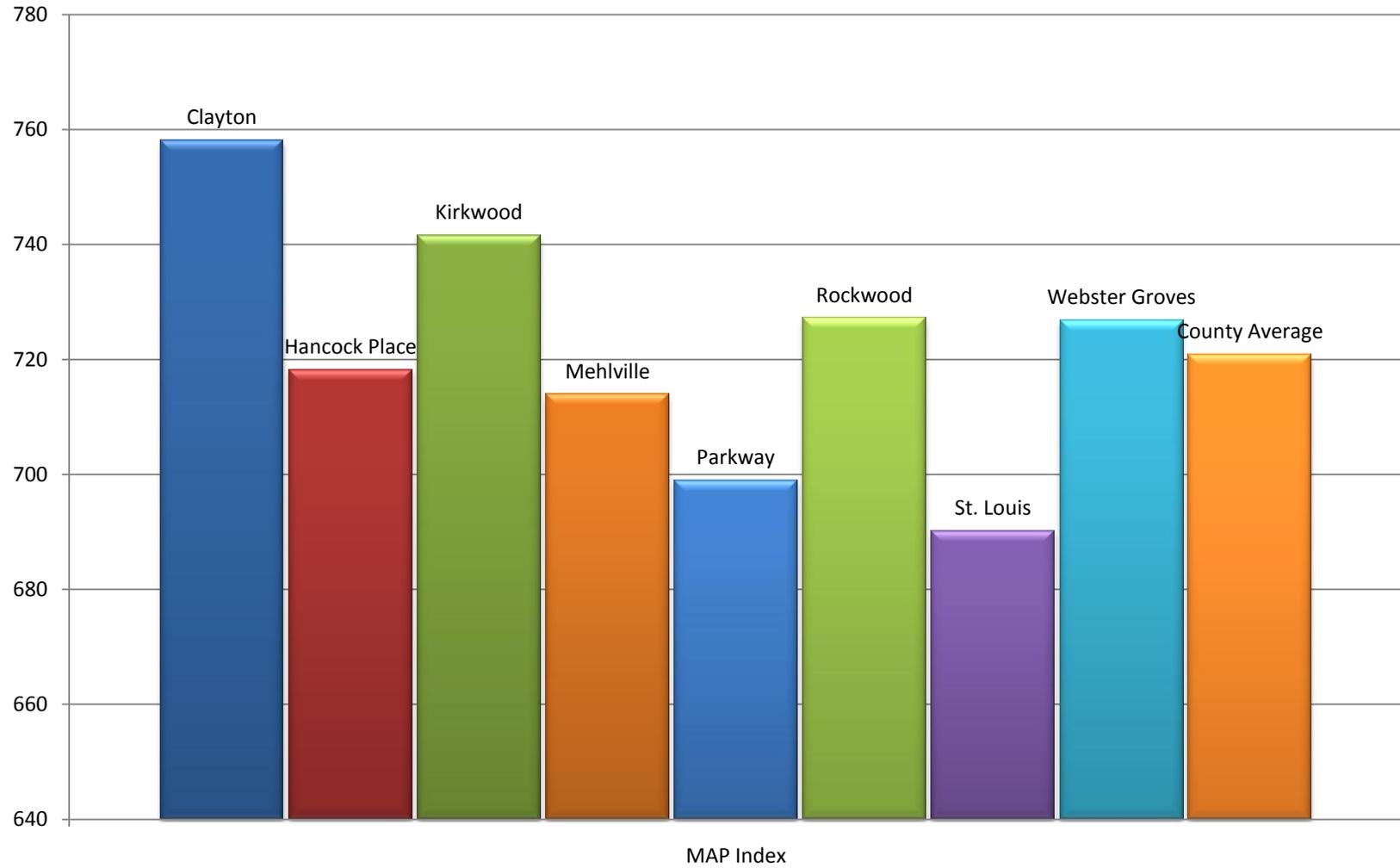
Communication Arts - Grade E2



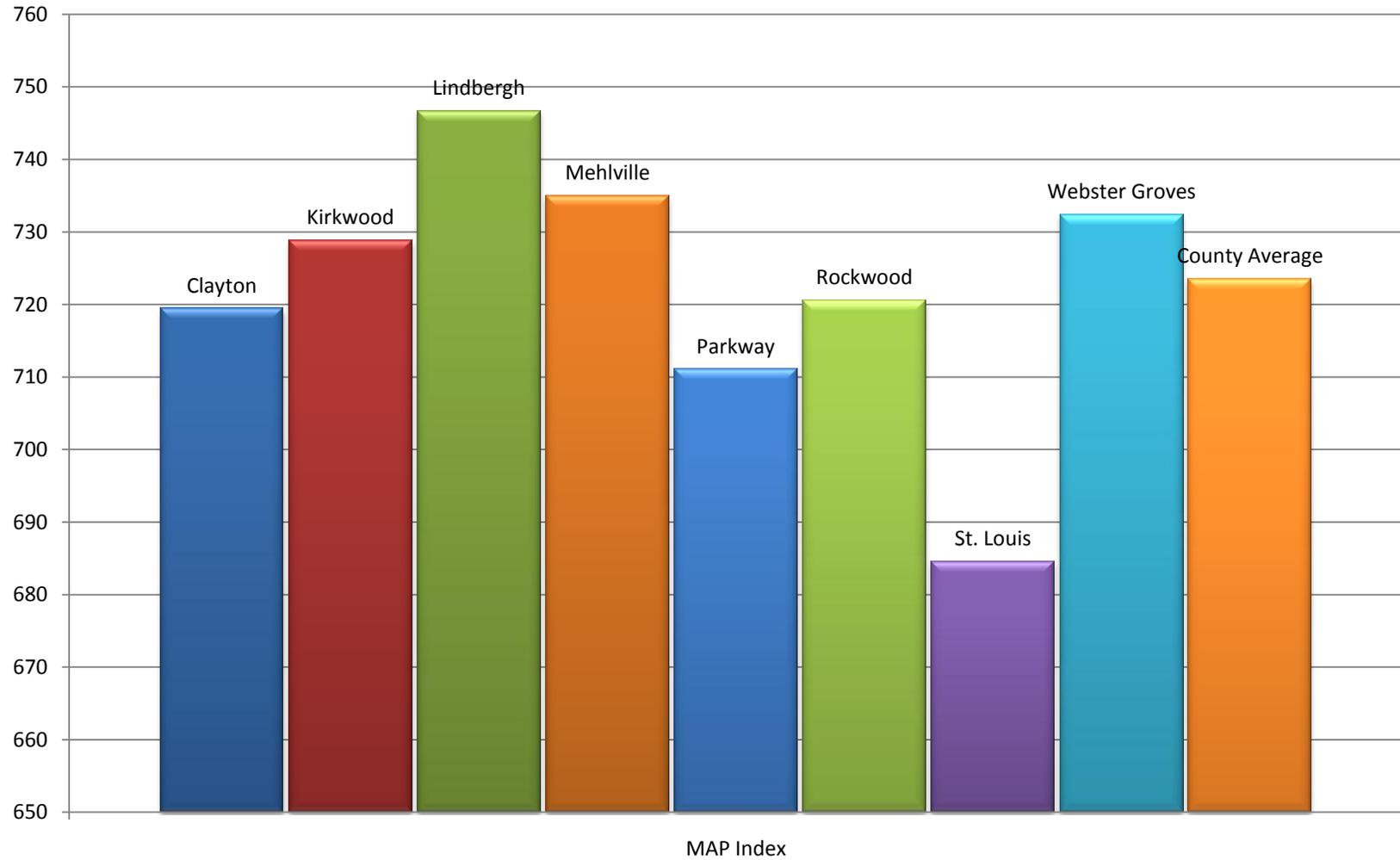
Mathematics - Grade 3



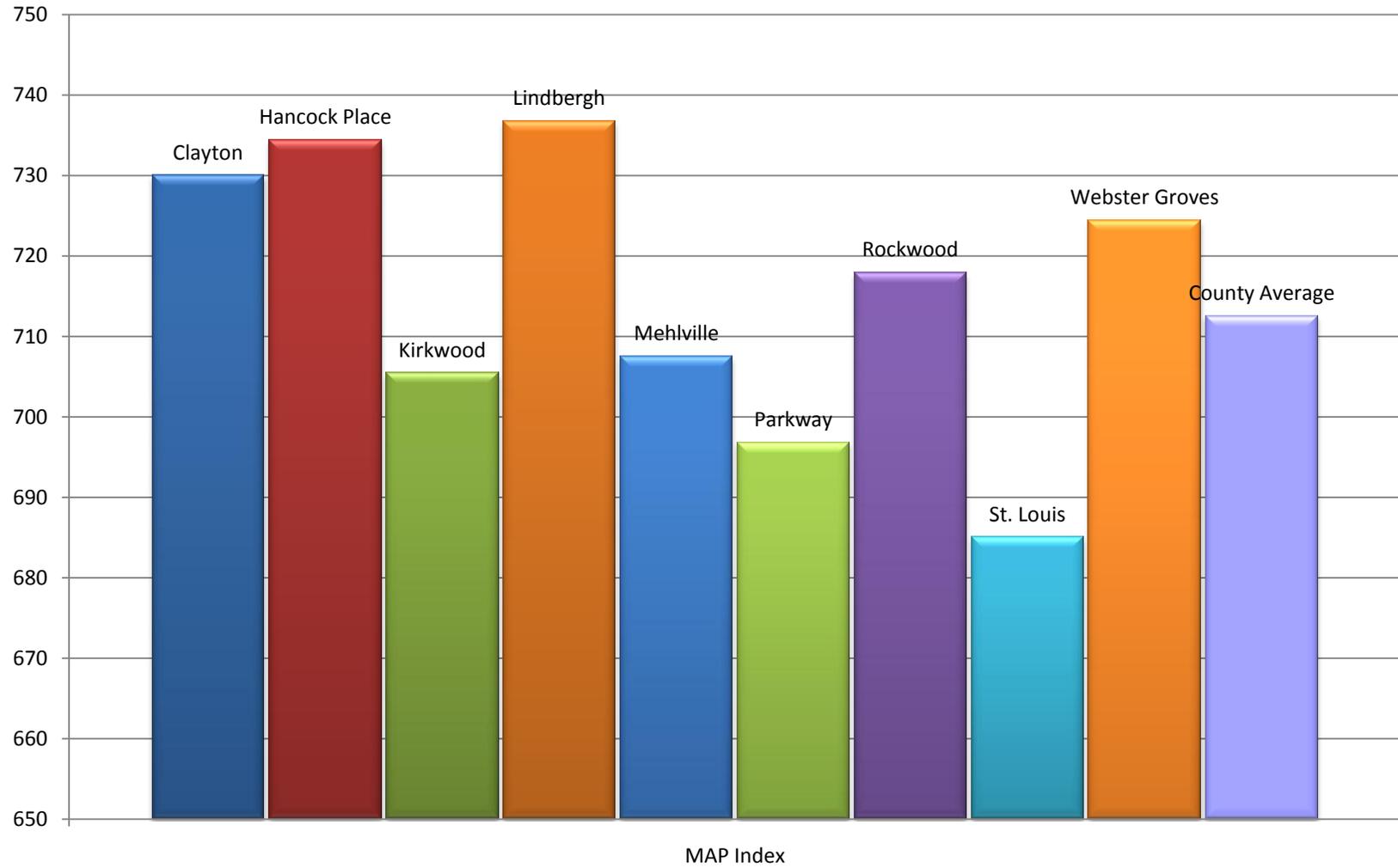
Mathematics - Grade 4



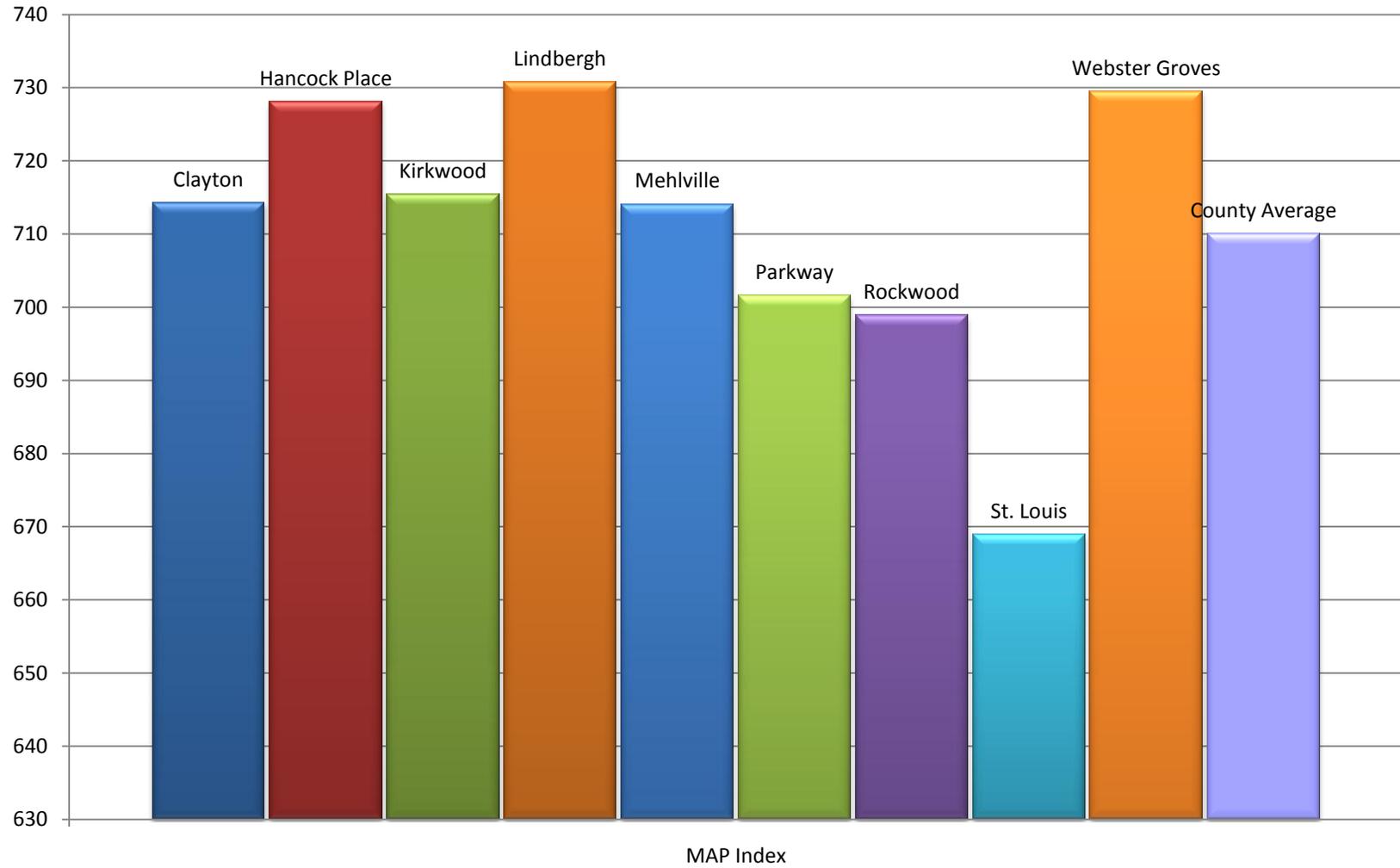
Mathematics - Grade 5



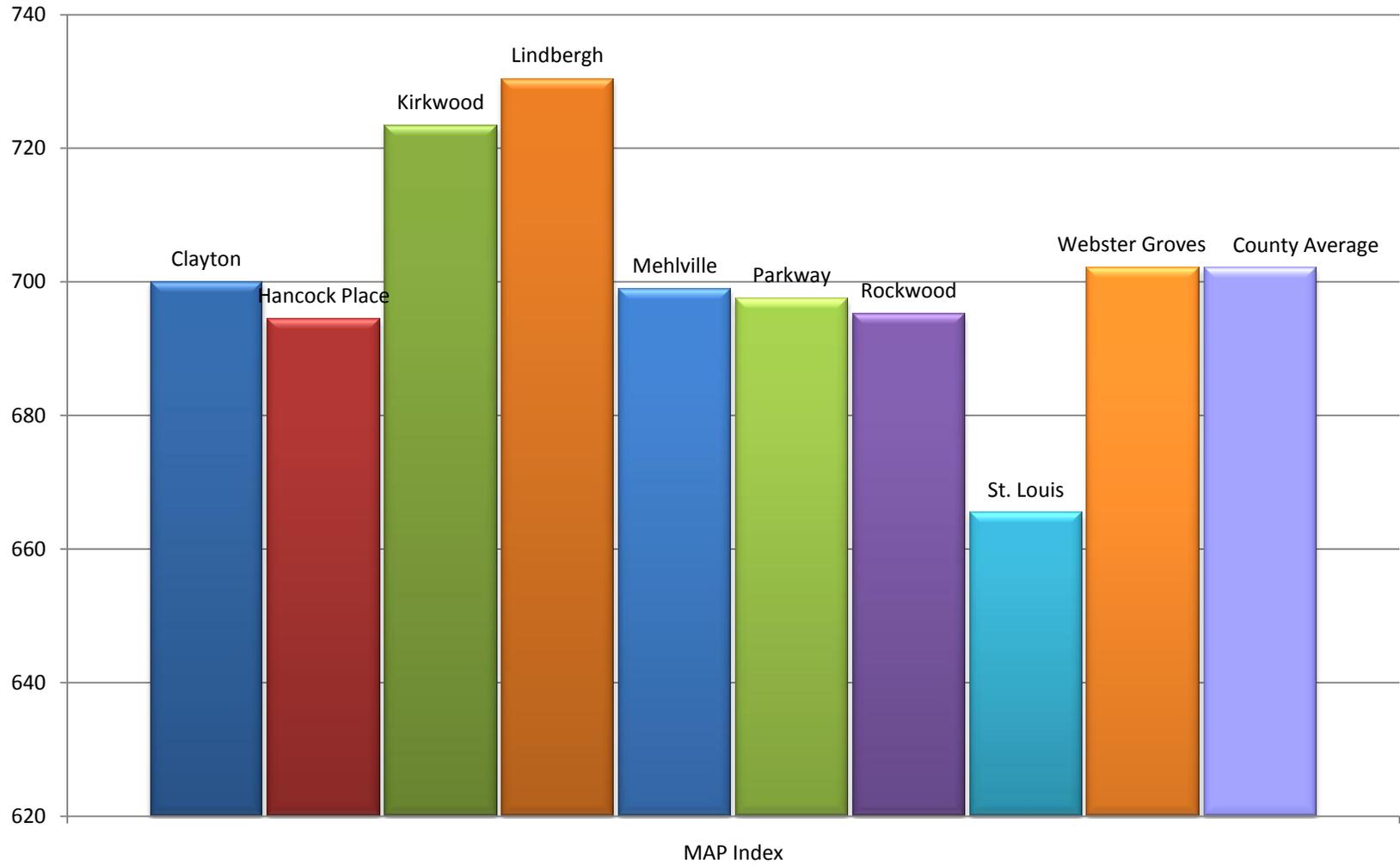
Mathematics - Grade 6



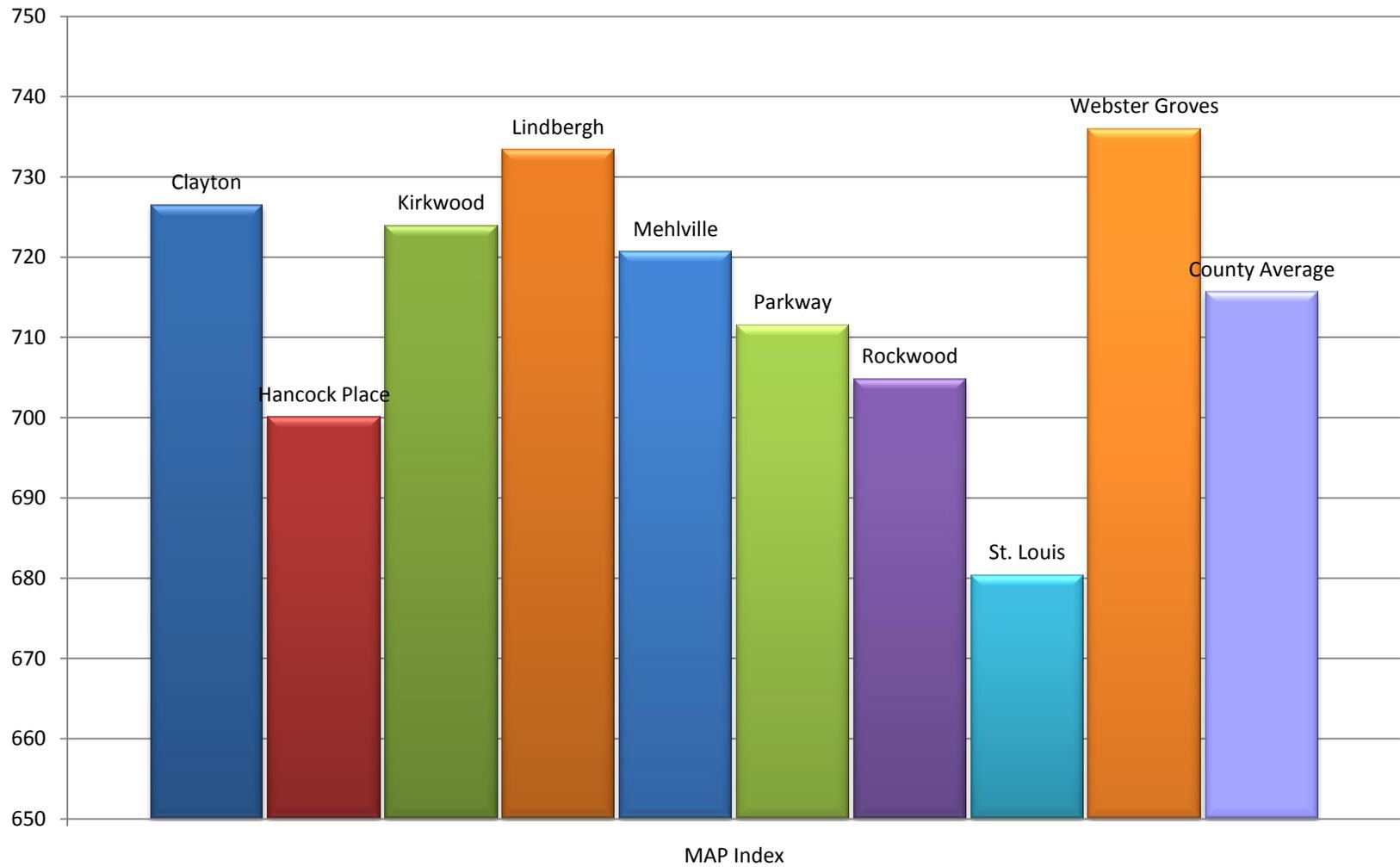
Mathematics - Grade 7



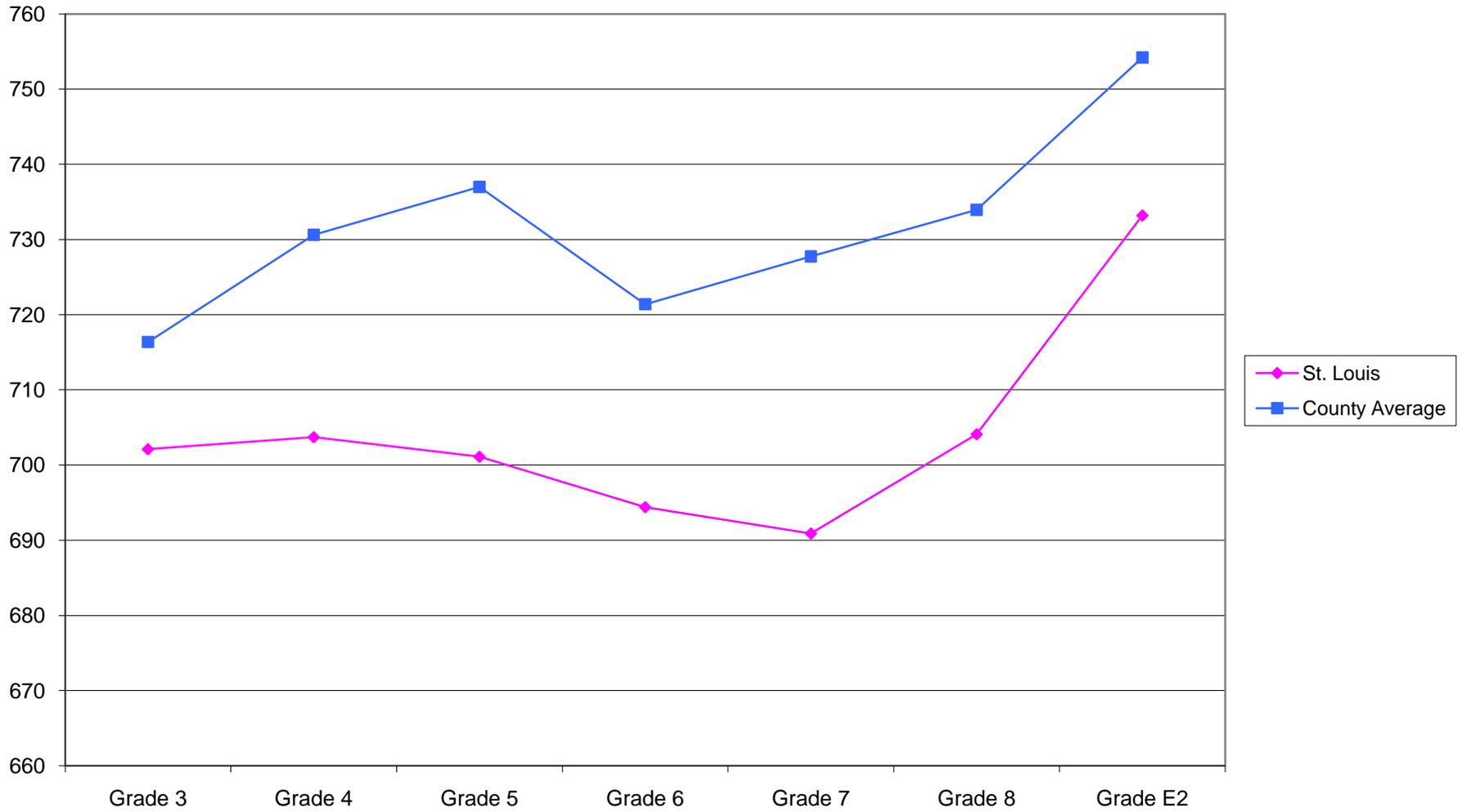
Mathematics - Grade 8



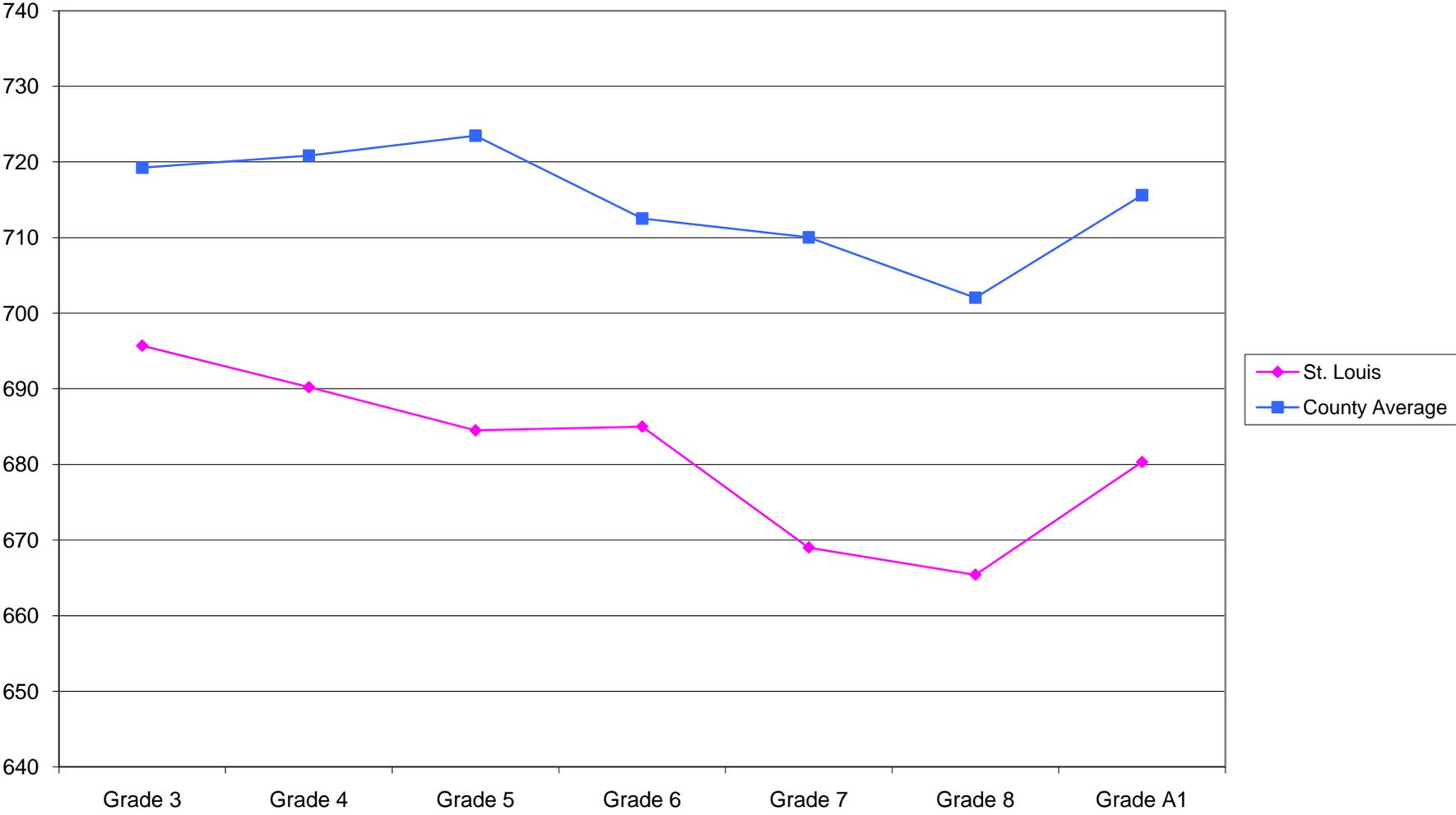
Mathematics - Grade A1



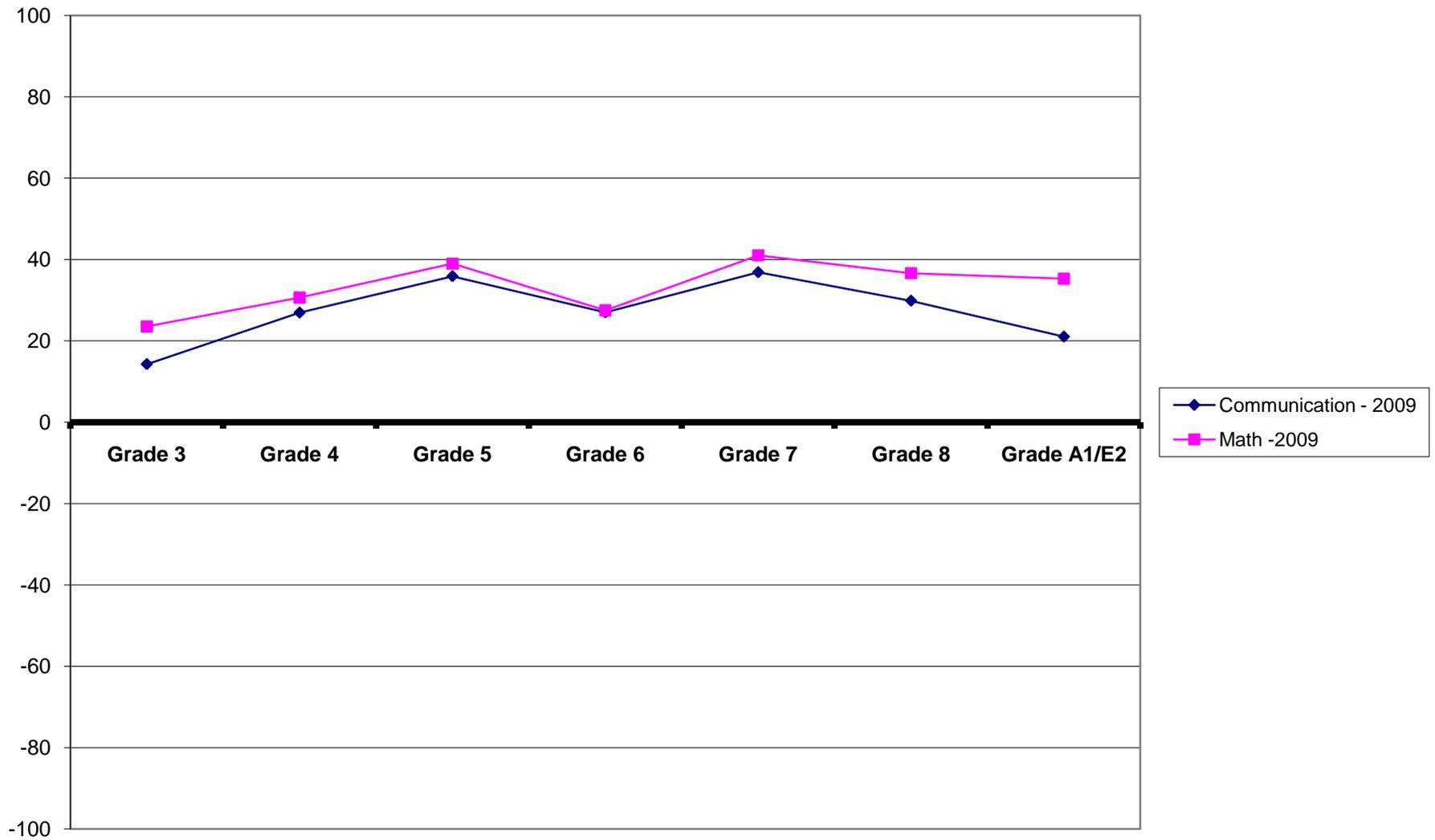
Communication Arts Comparison 2009



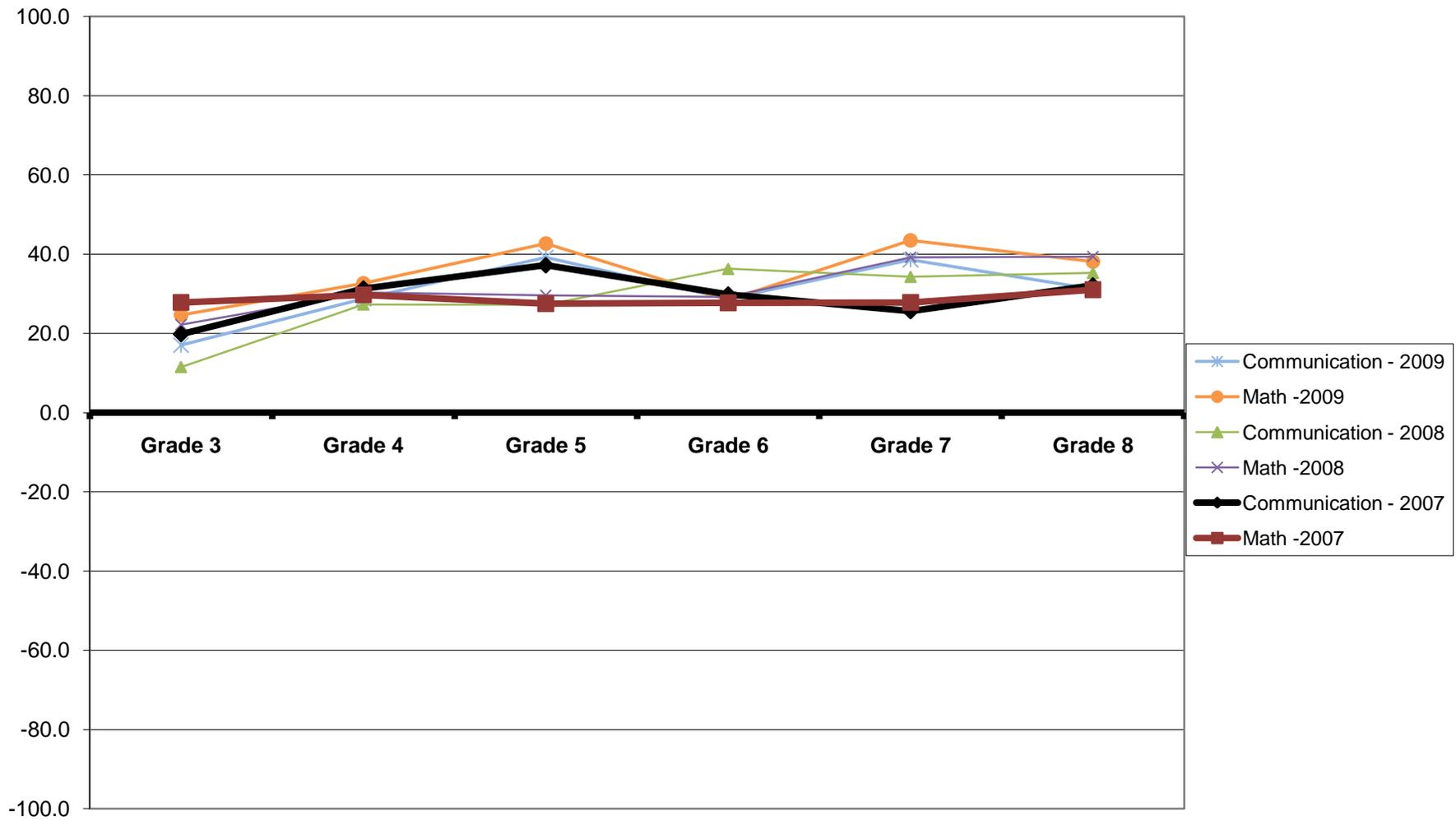
Mathematics Comparison 2009



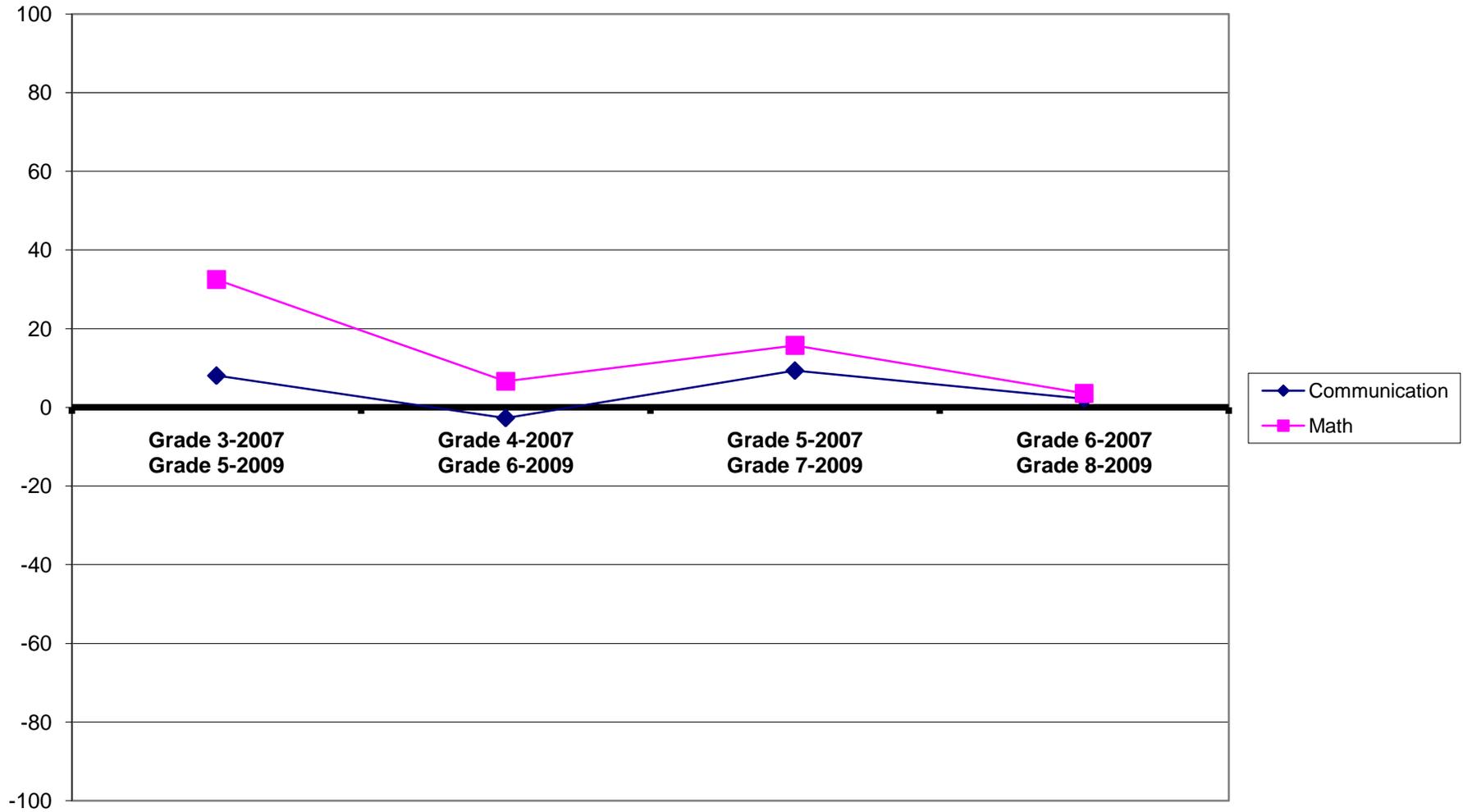
Snapshot Difference in Index Between St. Louis and the County Average



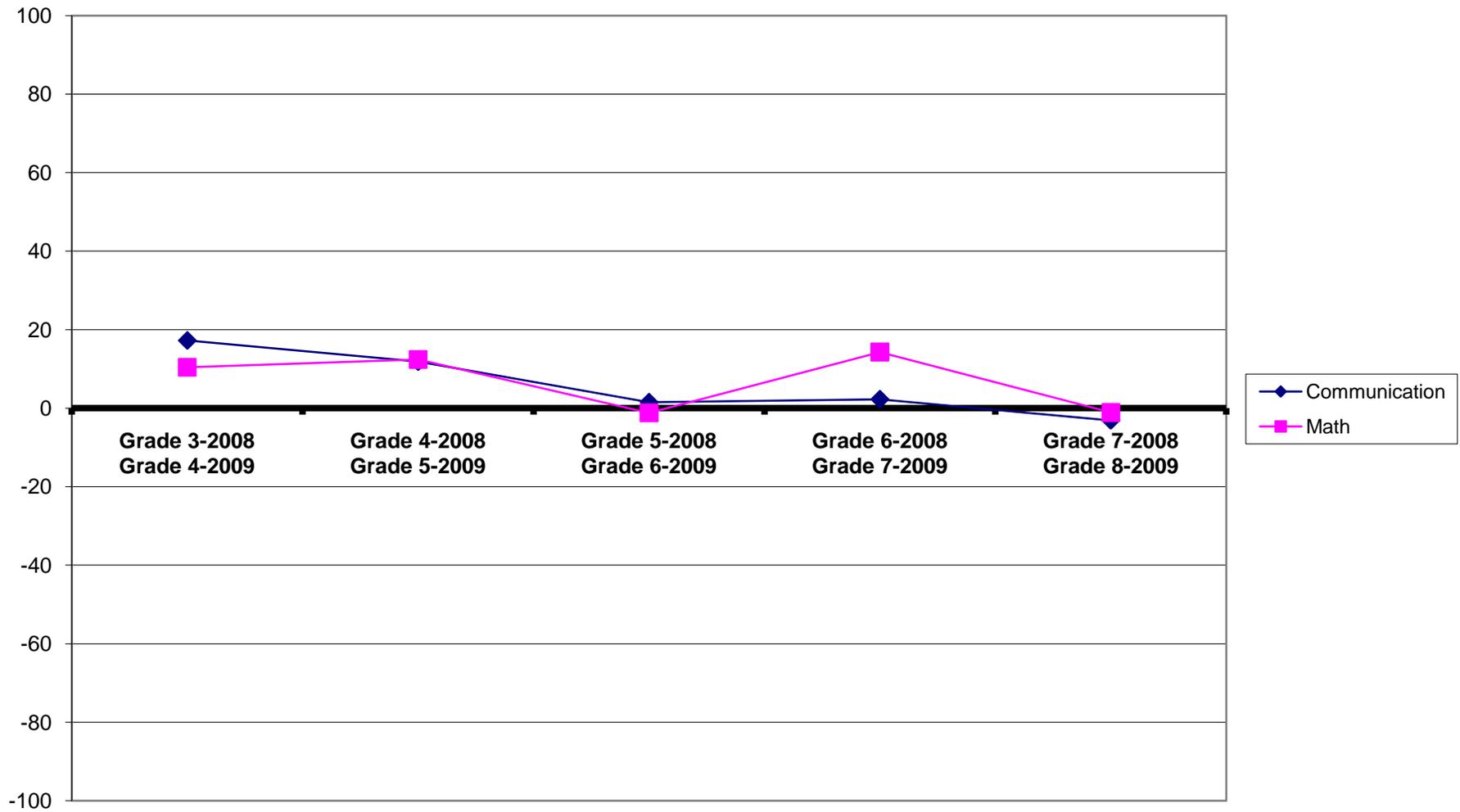
Snapshot Difference in Index Between St. Louis and the County Average 2007 - 2009



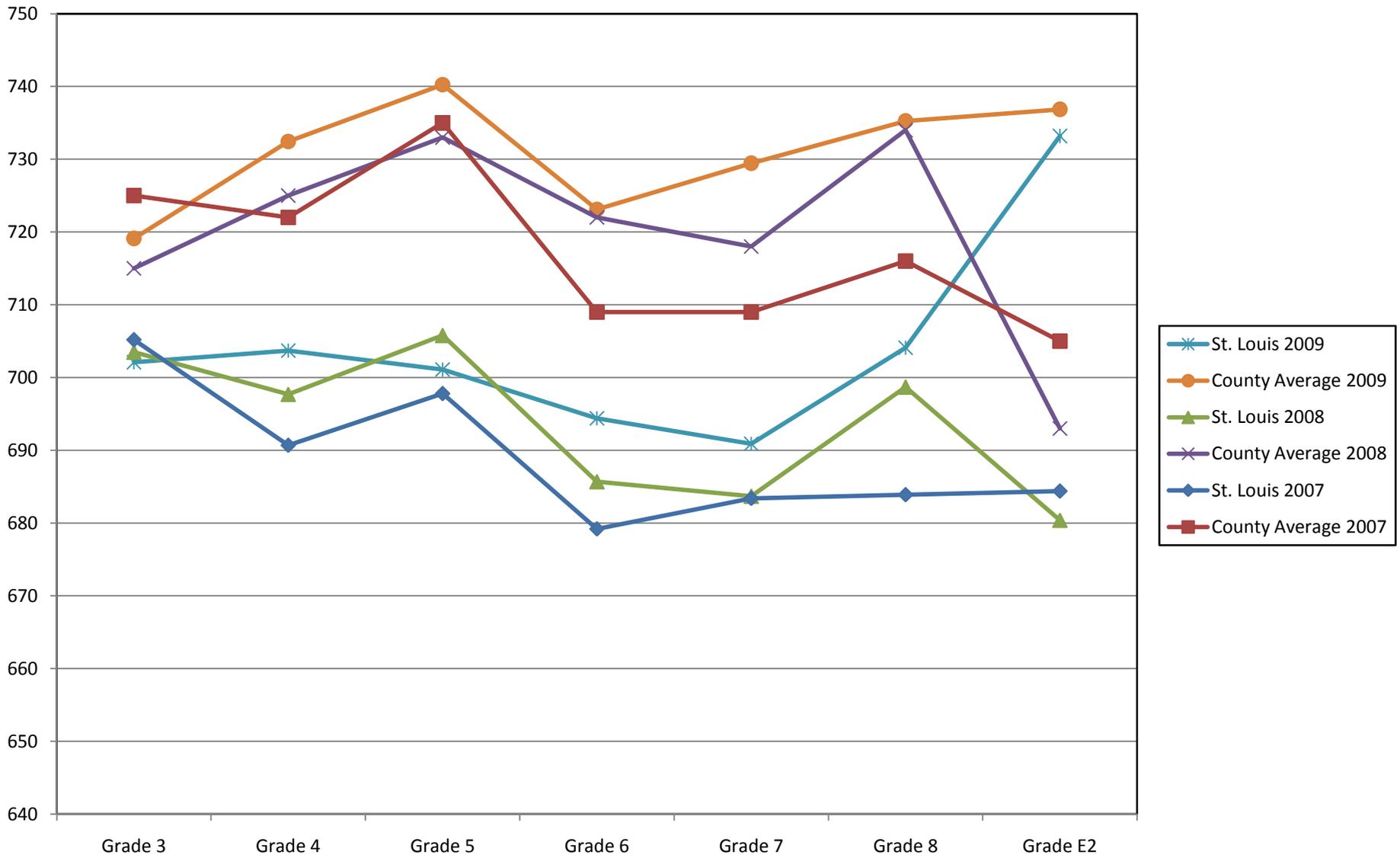
Difference in Index Between St. Louis and the County Average Continuity from 2007 to 2009



Difference in Index Between St. Louis and the County Average Continuity from 2008 to 2009



Communication Arts Comparison 2007-2009



Mathematics Comparison 2007-2009

