

2014

# An investigation of the relationship between Michigan Department of Education school achievement rankings and school's percentage of economically disadvantaged students

Nicholas E. Ceglarek

Follow this and additional works at: <http://commons.emich.edu/theses>



Part of the [Social and Behavioral Sciences Commons](#)

---

## Recommended Citation

Ceglarek, Nicholas E., "An investigation of the relationship between Michigan Department of Education school achievement rankings and school's percentage of economically disadvantaged students" (2014). *Master's Theses and Doctoral Dissertations*. 807.  
<http://commons.emich.edu/theses/807>

This Open Access Dissertation is brought to you for free and open access by the Master's Theses, and Doctoral Dissertations, and Graduate Capstone Projects at DigitalCommons@EMU. It has been accepted for inclusion in Master's Theses and Doctoral Dissertations by an authorized administrator of DigitalCommons@EMU. For more information, please contact [lib-ir@emich.edu](mailto:lib-ir@emich.edu).

An Investigation of the Relationship between Michigan Department of Education School  
Achievement Rankings and the School's Percentage of Economically Disadvantaged Students

by

Nicholas E. Ceglarek

Dissertation

Submitted by the College of Educational Leadership

Eastern Michigan University

in partial fulfillment of the requirements

for the degree of

DOCTOR OF EDUCATION

in

Leadership and Counseling

Dissertation Committee:

William Price, Ph.D, Chair

James Berry, Ed.D.

David Anderson, Ed.D.

Derrick Fries, Ph.D.

September 2, 2014

Ypsilanti, Michigan

## **Acknowledgments**

My deepest appreciation and gratitude goes to Dr. William Price, my dissertation chair. Without his patience, encouragement, and steady support, this would not have been possible. His leadership and guidance serves as a model for me in my life for my future endeavors. I would also like to recognize and thank the members of my committee, Dr. Berry, Dr. Anderson, and Dr. Fries. Again, without their support and patience this would not have been possible.

To my wife, Darcy, and two sons, Colson and Zane, it is through their strength, love and support we were able to scale this mountain. The only word that comes to mind is love.

To my family, specifically, my mother and father, this could not have been possible if it were not for their continued love and support. To my brother-in-law and great friend, Jeff without your time and talents this would not have happened. I am eternally grateful.

## Abstract

The primary purpose of this study was to compare the Michigan Department of Education's (MDE) school ranking system, the Top to Bottom Ranking, to the school's percentage of economically disadvantaged students as measured by the percentage of free and reduced-price lunch. In addition, finding that a correlation exists, the study sought to identify an alternate method of reporting school effectiveness, taking into consideration the school's percentage of economically disadvantaged students.

Utilizing the current Top to Bottom Ranking system, the Michigan Department of Education assigns an array of requirements, sanctions, and rewards, depending on where a school building ranks. This ranking system does not take into account the factor of the socio-economic status of the students attending the school. It was the intent of the study to show an inverse correlation between a school's percentage of economically disadvantaged students and the school's relative ranking on the Top to Bottom list. Additionally, the study aimed to provide an alternate solution for reporting and classifying school quality.

Specific research questions included 1) Does an inverse correlation exist between a school's rank and its economically disadvantaged (ED) population? and 2) Is it possible to create a ranking system that uses the MDE metrics of a building's student achievement scores, students achievement change, and students achievement gap while factoring in a school's percentage of economically disadvantaged student population?

Using a Pearson product-moment correlation coefficient on the 2011-12 and 2012-13 MDE's school data-based information, a significant correlation, -0.7525514 and -0.7379997, respectively, confirmed a p-value  $< 0.0001$ . Furthermore, using quantile regression, a new ranking model was created allowing one to control for an acceptable correlation between a school building's ranking and a school's percentage of economically disadvantaged.

## Table of Contents

Acknowledgments.....	ii
Abstract.....	iii
Table of Contents.....	iv
List of Tables.....	vi
List of Figures.....	vii
Chapter 1: Introduction and Background Information.....	1
Statement of the Problem.....	8
Purpose of the Study.....	9
Research Hypothesis and Questions.....	11
Significance of the Study.....	11
Operational Definitions.....	14
Limitations of the Study.....	16
Organization of the Document.....	18
Chapter 2: Review of Related Literature.....	19
Introduction.....	19
Poverty and Its Relationship to Student Achievement.....	20
Michigan Department of Education Assessments and the Federal “Race to the Top” Program.....	33
Summary.....	35
Chapter 3: Methodology.....	36
Methodology Research Design.....	36
Research Hypothesis.....	36

Statistical Methodology.....	37
Validity and Reliability of the Research Process.....	39
Explanation of New Ranking System.....	39
Summary.....	42
Chapter 4: Findings and Data Analyses.....	43
New Ranking vs. MDE Top to Bottom Ranking.....	47
School Buildings with the Largest Positive Change.....	48
School Buildings with the Largest Negative Change.....	49
Example of New Rank on a Mid-size District.....	52
Summary of New Rank on Michigan Schools.....	54
The Covert Example.....	55
Conclusion.....	63
Chapter 5: Conclusion of Results, Discussion, and Recommendations for Further Research, Practice, and Policy.....	66
References.....	71
Appendices.....	76
Appendix A: Correlation Derivation.....	76
Appendix B: New Top to Bottom Ranking 2011-12.....	78
Appendix C: New Top to Bottom Ranking 2012-13.....	146
Appendix D: MDE’s Top to Bottom Rankings Business Rules.....	214

## List of Tables

Table	Page
1. School Accountability Systems in Relation to Poverty Rates .....	41
2. Translation of a State’s Accountability Systems R Squared Values to Correlation Coefficient (r) in Relation to Poverty .....	41
3. Schools with the Most Significant Positive Difference Between New Ranking System and Current Top to Bottom System Using 2011-12 Data .....	48
4. Schools with the Most Significant Positive Difference Between New Ranking System and Current Top to Bottom System Using 2012-13 Data .....	48
5. Schools with the Most Significant Negative Difference between New Ranking System and Current Top to Bottom System Using 2011-12 Data .....	49
6. Schools with the Most Significant Negative Difference between New Ranking System and Current Top to Bottom System Using 2012-13 Data .....	50
7. Hudsonville Public Schools Building by Building Comparison of TtB Rank and NewRank Using 2011-12 .....	52
8. Summary Statistics of NewRank System Compared to MDE Top to Bottom Ranking .....	54
9. Achievement Index by Subject for Covert Elementary .....	57
10. MDE’s Weighted Value for Performance Change .....	58
11. Improvement Index by Subject for Covert Element .....	59
12. Gap Index by Subject for Covert Elementary .....	59
13. Calculations for Quantile Regression 2012 Data .....	63
14. Visual Inspection of Correlation with NewRank and Free and Reduced-price Lunch Percentages .....	64

## List of Figures

Figure	Page
1. Michigan’s Annual Adequate Yearly Progress Targets in English Language Arts and Math .....	2
2. Michigan Department of Education Top to Bottom Ranking Methodology (El./MS) .....	6
3. Michigan Department of Education Top to Bottom Ranking Methodology (HS) .....	7
4. Scatterplot of Michigan’s 2011-12 Top to Bottom Ranking Compared to a School Building’s Percentage of Free and Reduced-price Lunch .....	38
5. Scatterplot of Michigan’s 2012-13 Top to Bottom Ranking Compared to a School Building’s Percentage of Free and Reduced-price Lunch .....	38
6. Quantiles fit at the 0.05, 0.10, 0.15, ..., 0.95 2011-2012 Top to Bottom Data .....	46
7. Scatterplot of New Ranking System Compared to Current System .....	47
8. Two Scatterplots: One Using Current Ranking System (TtBRank) and a School’s Free and Reduced-price Lunch Population (FRProp), and the Second, the New Ranking System (NewRank) and a School’s Free and Reduced-price Lunch Population (FRProp) Using 2011-12 Data.....	51
9. MDE's Performance Level Calculation .....	57
10. MDE's Improvement Calculations .....	57
11. Zoomed in Quantile Rankings .....	61
12. NewRank and Associated Gamma Value Calculation.....	65
13. Reading Proficiency Scores in Relation to a Building’s Free and Reduced-price Lunch Population Using 2012 Data .....	68



## **Chapter 1: Introduction and Background Information**

High stakes testing has taken on new meaning in American Public Schools. In 2001, with the enactment of No Child Left Behind (NCLB), public schools are being held accountable to ensure that all students are reaching achievement gains. Rothstein and Jacobsen (2007) noted, No Child Left Behind (NCLB) holds all elementary schools, regardless of student characteristics, accountable for achieving proficient student scores in reading and math. By demanding that schools report achievement for racial, ethnic, and economic subgroups, the accountability systems aim to shine a light on schools that ‘leave children behind’ (p. 9).

As of 2001, the majority of states in the nation had accountability systems in place that used, in large part, state standards measured by a state-wide assessment system including targets for performance (Hamilton et al., 2002). With the new law in place, states are obligated to file with the federal government accountability plans, describing what happens when schools did not meet accountability targets. Part of the state’s plan had to show a growth model where all students would reach 100% proficiency by 2014. As an example, Figure 1 was the State of Michigan’s submission in 2002 of its accountability model:

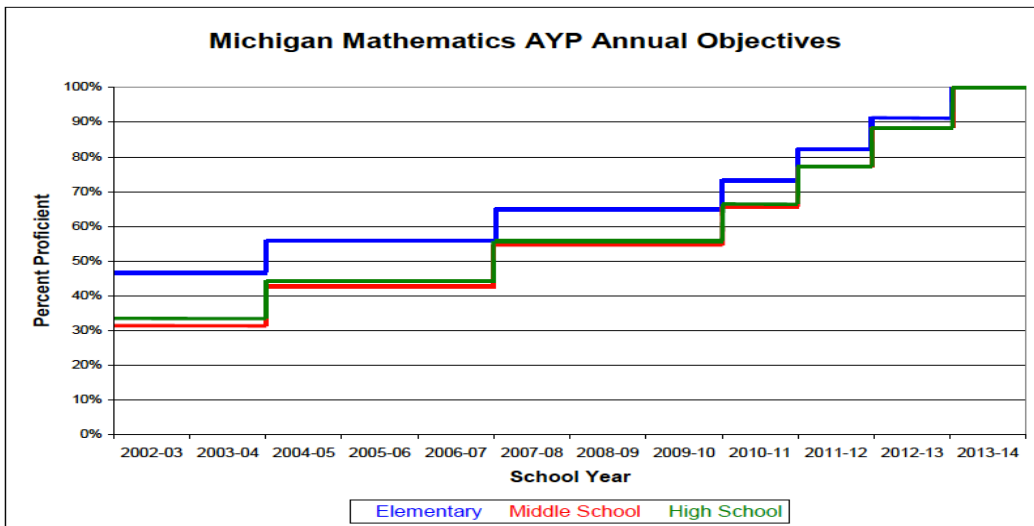
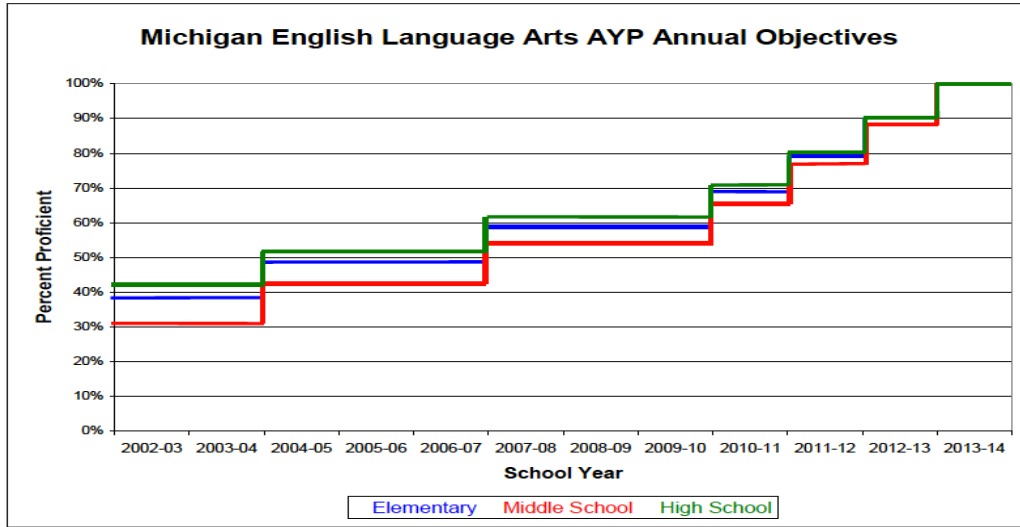


Figure 1. Michigan’s Annual Adequate Yearly Progress Targets in English Language Arts and Mathematics

As the 2013-2014 deadline approached for reaching proficiency, the anxiety level of school and state leaders increased. McNeil (2011) from Education Week reported, “The law [NCLB] allowed states to set their own annual benchmarks, provided they reached 100 percent proficiency by 2013-14, and some simply refused to raise their benchmarks any further or requested waivers from the rules” (McNeil, 2011, para. 14). In the summer of 2011, U.S.

Secretary of Education Duncan promised to create a waiver option for all states, as long as states met U.S. Department of Education prescribed benchmarks. The intent of the waiver was to provide schools, school districts, and states protections from the sanctions that would ensue if the proficiency targets of NCLB were not reached. However, the legislative processes to either reauthorize ESEA or NCLB has stalled with little indication of movement (Klein, 2011).

Uncertainty from the Federal level and diminishing state budgets due to the recession of 2010 caused many states to begin scrambling to adjust public school accountability measures. Michigan, for example, from 2009 to 2012, passed 948 public acts as well as over 100 legislative rules and regulations. Over half of all legislative action over the three-year period pertained to public education (Michigan Legislature Website, 2010).

In 2010, under new presidential leadership, a new federal educational program, Race to the Top, was introduced. A press release from U.S. Secretary of Education Duncan explained, “the Race to the Top state competition is designed to reward states that are leading the way in comprehensive, coherent, statewide education reform across four key areas:

- Adopting standards and assessments that prepare students to succeed in college and the workplace;
- Building data systems that measure student growth and success, and inform teachers and principals how to improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around their lowest-performing schools. (United States Department of Education, Race to the Top, 2010, para. 12).

The announcement of Race to the Top (RttT) was a fundamental shift regarding how federal funds were allocated to states and ultimately to local districts. RttT was the first time the federal government allocated a significant amount of money on a competitive basis. The \$4.3 billion grant program was only rivaled by traditional federally funded programs such as special education funds through IDEA as well as Title Funds to support high economically disadvantaged student populations in school districts. The major difference was that IDEA and Title funds were distributed via a formula and not through competition.

The RttT was released in two phases, in April of 2010 and in September 2010. Each phase competitively pitted state vs. state on five main reform efforts 1) design and implementation of high academic standards and assessments, 2) recruitment and retention of high quality educators, 3) design and implementation of state-wide data systems to inform and improve instruction, 4) innovation in turning around the consistently lowest performing schools, and 5) instituting wholesale education reform. Accordingly, the U.S. Department of Education scoring rubric measured these five efforts (United States Department of Education, Race to the top, 2010). States that could demonstrate through legislative action, regulations, and memorandums of understanding regarding the efficacy of the five reform efforts (as well as adoption of the Common Core Curriculum Standards) would be awarded the grants.

Forty states, including Michigan, applied for the first phase. Michigan's 182 page application did not meet the standards set forth and subsequently, Michigan and 38 other states bowed to the eventual winners: Delaware and Tennessee. The defeat of the first phase did not deter the leaders in Michigan. In fact, in a press release accompanying Michigan's second application, Governor Jennifer Granholm stated, "We are committed to ensuring that all Michigan children receive the first class, 21st Century education they need to compete and

succeed in a global economy. The plan outlined in this application establishes a clear path to help us meet that goal” (Ackley, 2010, para. 2).

Learning from the first application, Michigan’s new application, which was also not funded, identified reform efforts. New laws, enacted in January 2010, provided a statewide structure to turn around low-performing schools; improve instruction by providing supports to teachers and administrators whose students are not showing academic improvement over time; expanded charter schools; align curriculum and assessments with new common core standards; and provide alternate routes to teacher and administrator certification. The new reform laws outlined the process in which the State of Michigan was going to identify and report low-performing schools. The law required specific criteria on how the state would identify the Persistently Lowest Performing Schools (PLPS).

Michigan used a sophisticated Top to Bottom (TTB) ranking to 1) help identify low-performing schools, and 2) provide information to all schools regarding their performance and how they compare to similar schools. The Michigan Department of Education policy defined “a school with a high ranking is one that has a high level of proficiency, is improving over time, and is ensuring all students learn and achieve at a high level” (Michigan Department of Education, 2010). Figures 2 and 3 outline the criteria used to determine each school’s ranking in the State of Michigan. The Michigan Department of Education uses some basic standardization statistics (Z-scores), which allows for comparisons of elementary, middle and high schools.

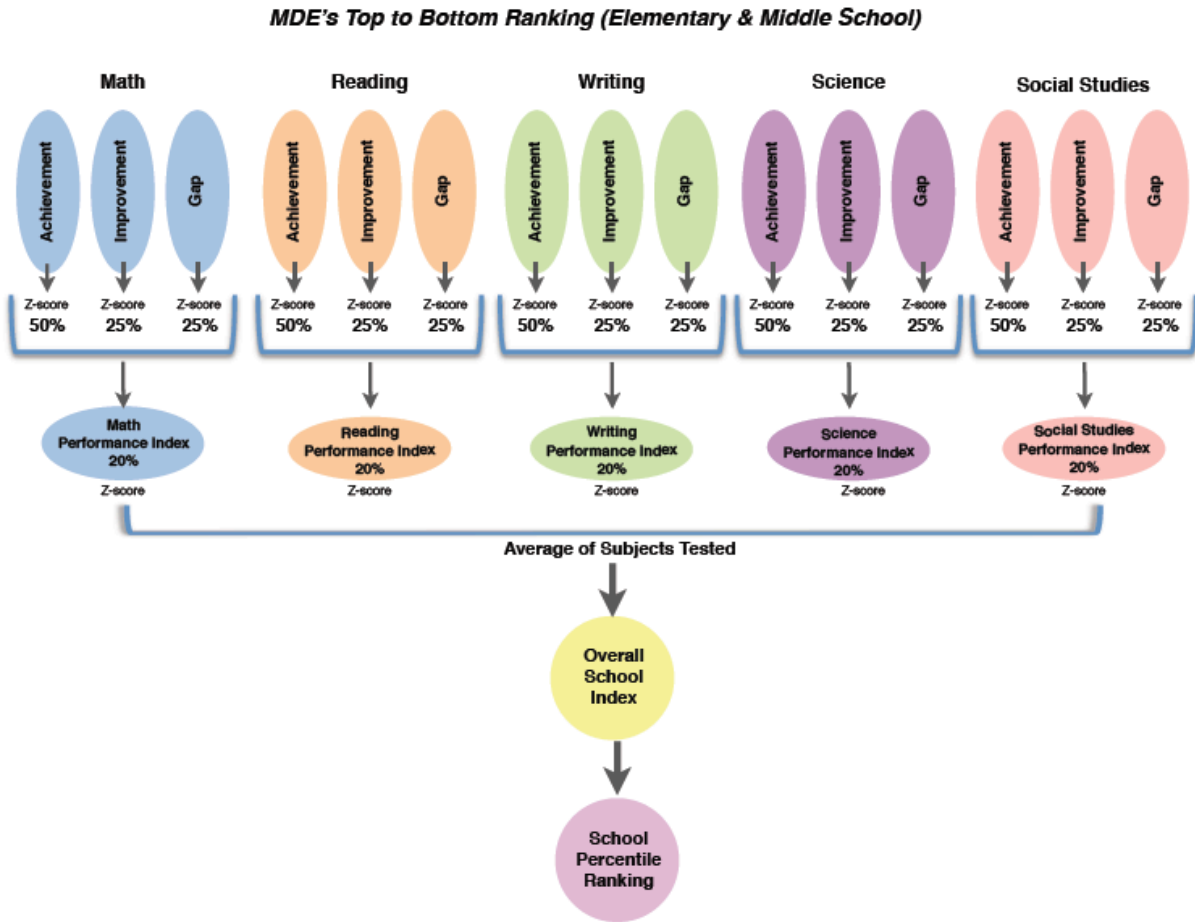


Figure 2. Michigan Department of Education Top to Bottom Ranking Methodology for Elementary and Middle Schools

**MDE's Top to Bottom Ranking (High School)**

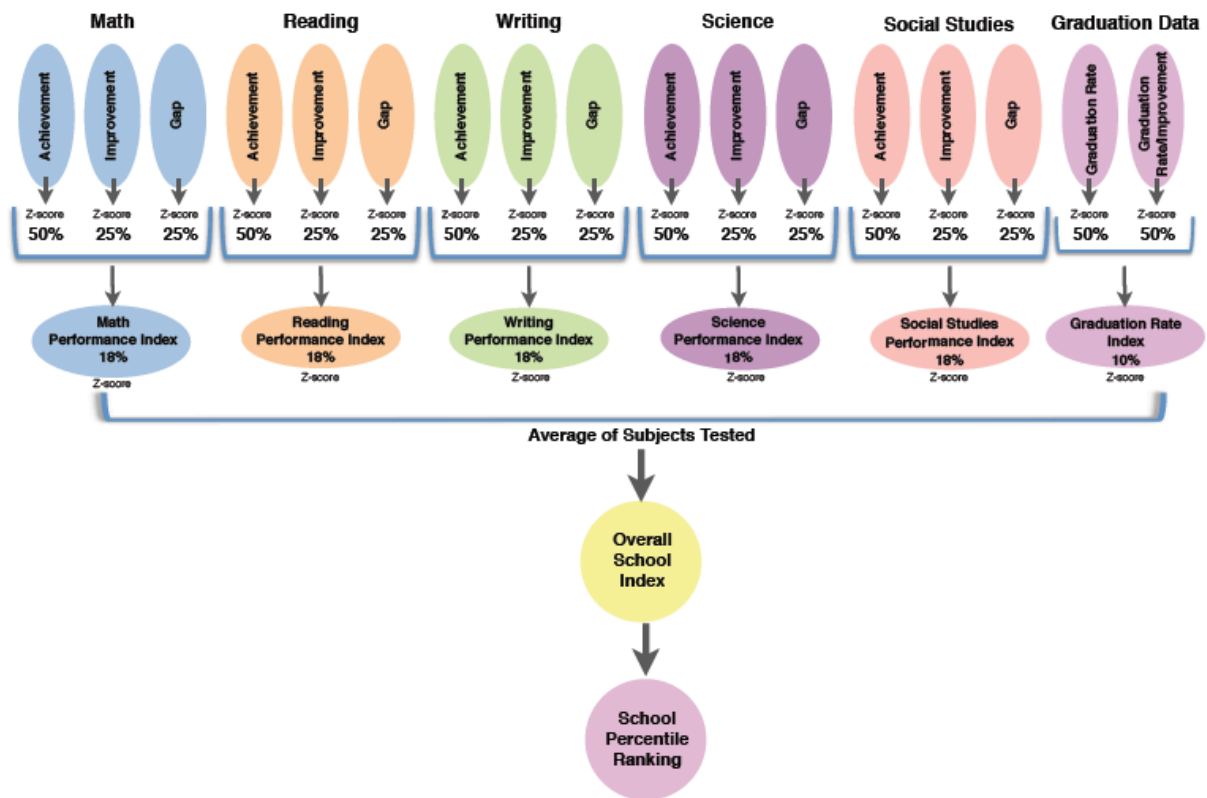


Figure 3. Michigan Department of Education Top to Bottom Ranking Methodology for High School

Each year, the Michigan Department of Education publishes this Top to Bottom (TTB) list that rank orders all qualifying public schools in the state. According to the Michigan Department of Education’s Top to Bottom Business Rules (Appendix D) to qualify 1) all students with test scores who are full academic year (FAY) are included, 2) at least 30 FAY students are tested in either the elementary/middle school span or the high school span for each in two or more subjects, 3) a student with a performance level of 1 or 2 is considered proficient, and 4) schools are ranked ordered using an achievement index, an improvement index, and an achievement gap

index. Schools with a graduation rate also have graduation rate and graduation rate improvement included in their ranking calculation.

In 2012, the TTB list rank ordered 2885 schools. In addition to this TTB ranking, the Michigan Department of Education highlights groups of schools “in order to provide appropriate support” (Michigan Department of Education, 2012). The groupings include Priority, Focus, and Reward Schools (Appendix D). The school groupings are identified and related to the school’s relative TTB ranking.

### **Statement of the Problem**

Beginning in 2010, a change in reporting occurred in the Michigan Department of Education (MDE) policy and philosophy with regard to reporting school effectiveness. Over the past three years, the Michigan Department of Education has released a “Top to Bottom” list of schools. Based on student achievement and graduation data for high schools, the MDE, through z-score standardization, has ranked ordered all the schools using at least 30 full academic year students in two testing content areas. The MDE annually releases this “Top to Bottom” ranking of schools to the public.

The release of data, in rank order fashion, has created a controversy and generated many questions in school districts across the State of Michigan. Parents and community members took the rank order of schools as a definitive statement of school quality. For example, in a district with multiple school buildings, parents questioned school officials as to why one elementary was ranked far below another and what plans were in place to “beat out” neighboring schools. Additionally, with the prevalence of school of choice, some districts, which are ranked higher on the MDE’s Top to Bottom Ranking, are seeing an increase in school of choice requests solely based on a school’s ranking. If parents are making decisions based on a ranking system shouldn’t the system be just and be within the school’s control to improve its relative ranking?



Given the research on the effects of socio-economic status such as lack of nutrition, lack of a home support system, and lack of safety within neighborhoods (Coleman et al., 1966, Brooks-Gunn et al., 2001, Prince et al., 2006) is there a correlation between a school's ranking and the school's percent of economically disadvantaged students? Is this current TTB system communicating to the greater community the authentic quality of a given school or is it a reflection of the school's percentage of economically disadvantaged students? Is there a better model for reporting to the public a school's quality (or effectiveness) that takes into account mitigating factors outside of the school's control, like the percentage of economically disadvantaged students within a school?

Ranking, by its definition, is an act or instance of relative standing (Webster, 2012). Moreover, ranking indicates superiority from one entity to another. Ranking is important and necessary in our daily lives. Prior to the purchase of a TV, an individual may rank TVs based on size of screen, contrast ratio, price, and other features. This ranking is to ensure the consumer has made an informed purchase. However, is a school ranking system utilizing test scores without accounting for the school's socio-economic status of the student population appropriate for evaluating a school's effectiveness?

### **Purpose of the Study**

This study will investigate whether a relationship exists between a school's achievement ranking and the percent of economically disadvantaged children attending the school. The current MDE practice, which is unique to the State of Michigan, systematically rank orders all qualifying schools in the State of Michigan based on three criteria for elementary and middle schools and four criteria with high schools 1) student achievement data as measured by the Michigan Education Assessment Program (MEAP), 2) a school building's achievement improvement over time as measured by the MEAP, 3) the largest achievement gap between the

highest and lowest performing subgroups as measured by the MEAP, and 4) high school graduation data.

The purpose of this study is to analyze the MDE “Top to Bottom” list and show, similar to the Coleman research (Coleman et al., 1966), that a correlation exists between a school’s “ranking” and the percent of economically disadvantaged students attending the school. It is the belief of this researcher, that by rank ordering schools, parents, community and policy makers in the State of Michigan are given a false indicator of school success. This system of rank ordering schools completely disregards other student factors such as socio-economic status that research has suggested significantly effects student learning.

If a correlation is shown between a school’s “Top to Bottom” ranking and the school’s percent of economically disadvantaged students, then it would suggest that the current system of ranking schools does not provide a complete measure of a school’s effectiveness. A secondary purpose of this study, therefore, is to propose an alternate model for measurement that considers socio-economic status on a school’s effectiveness. The proposed study will include a comprehensive review of educational research focused on the economically disadvantaged student populations in schools, school quality, and the State of Michigan’s school accountability model. The researcher will investigate a possible correlation between the percent of economically disadvantaged students within a school and that school’s achievement ranking. If the data reveals that such a correlation exists, then the researcher will propose a method of evaluating school quality in a more thorough manner. The new model will include state supplied data from the “Top to Bottom” list and factors such as the percent of economically disadvantaged students within a school. This research will apply rank ordered schools’ data to a quantile regression model. This regression model is proposed to be a more robust way of dealing

with the effects of dependent variables such as the percent of economically disadvantaged population within a school.

### **Research Hypothesis and Questions**

Null hypothesis:  $H_0$ : There is no correlation between the percentage of economically disadvantaged students within a school and that school's achievement ranking.

1. Is there a correlation between a school's percentage of economically disadvantaged students and that schools ranking on the TTB list?
2. Is it possible to create a ranking system that uses the MDE metrics of a building's student achievement scores, students' achievement change, and students' achievement gap while factoring in a school's percentage of economically disadvantaged student population?

### **Significance of the Study**

The Michigan Department of Education's Top to Bottom list (TTB) rank orders schools from the "best" to the "worst" based on how students in a school perform on the Michigan Educational Assessment Program (MEAP). Fifty percent of a school's rank order is on the overall schools MEAP proficiency level, twenty-five percent is based on the average student achievement change over time, and twenty-five percent is based on how well the school is closing the achievement gap between the bottom thirty percent of student performers compared to the top thirty percent of performers (Figure 2). With high schools, graduation data is also included in this ranking (Figure 3). Armed with all this data, MDE officials normalize a school's score in each of the three areas allowing for a comparison to be made between elementary, middle, and high school across the State of Michigan. This absolute ranking released to the public is the Michigan Department of Education's way to identify that school A is better than school B

because it is ranked higher without any consideration of other student or school related factors such as poverty.

In a 2013 TTB report, officials from the Michigan Department of Education acknowledged, “schools with lower proportions of economically disadvantaged students tend to rank higher on the TTB list, though there is quite a bit of variance to this relationship” (Michigan Legislature Website, 2013). However, this TTB list is still the method employed by the MDE to report on school quality.

The Michigan Department of Education’s use of the TTB has significant implications for schools and communities. In 2011, State Superintendent Flanagan commented, “[The TTB list] provides a real look at how our local schools are doing in educating their students” (Spalding, 2013, p. 2). The TTB list is not only used to inform communities on school quality it is also used to satisfy federal requirements as outlined in Michigan’s ESEA Flexibility Request. A significant portion of the state’s waiver outlines sanctions imposed on schools that fall low on the TTB list. Specifically, schools identified in the lowest 5 percent based on the TTB list are categorized as priority schools. Priority schools, which replaced the Persistently Lowest Achieving (PLA) designation used in 2010 and 2011, are closely monitored by the Michigan Department of Education officials and are required to develop a plan including one of four reform or redesign models: Transformation, Turnaround, Restart, or Closure.

From public perception to school sanctions, Michigan Department of Education officials and thus the State of Michigan’s use of an absolute rank ordering of schools through the TTB list has far reaching consequences. A mere acknowledgement of an informal relationship between a school’s percentage of low socio-economic students and that school’s ranking is not acceptable. In a 2013 report entitled, “Michigan’s Top-to-Bottom Ranking: A measure of school quality or student poverty,” Spaulding (2013) stated,

Michigan could look to other states for school ranking practices that have been approved by the federal government and that have less of a chance of penalizing schools for simply serving more disadvantaged students. Instead of measuring achievement gaps between the top- and bottom- score students, MDE should consider including the growth of lowest-scoring students as part of its report card, following the example of Florida, Arizona, Main, Ohio and Oklahoma. As part of its research, the state could look for measures of test score growth that *do not penalize schools that educate a large population of disadvantage students* [emphasis added]. (p. 9)

## Operational Definitions

In an effort to provide clarity in the study, definitions of the following terms will be provided:

1. **“Top to Bottom”**: This refers to the Michigan Department of Education rank ordering of each public school in Michigan on achievement, improvement, and within-school achievement gaps. Graduation rate is also factored into the TTB ranking for high schools.
2. **Economically Disadvantaged (ED)**: To remain consistent with the data collected/provided for the purpose of this research, ED was defined by the Michigan Department of Education (MDE) as those individual students that qualify for free or reduced-price lunch.
3. **“Beating the Odds”**: Refers to schools identified by the MDE as schools that have outperformed a peer group or a predicted value as determined by a linear regression model. Each school was compared to every other school in the state on locale, grade configuration, total enrollment, state foundation allowance, percentage of economically disadvantaged, percentage minority enrollment, percentage students with disabilities, percentage English language learners, and whether the school is a special education center. Based on these variables each school was matched with the 30 most demographically similar schools by calculating a weighted standardized Euclidean distance of each school.
4. **Quantile regression model**: A type of regression analysis whereas the conditional median or other quartiles are used with the response variable.
5. **Race to the Top**: A federally funded competitive grant program introduced in 2010.
6. **Persistently Lowest Performing Schools (PLPS)**: Schools identified using the states defined criteria as performing in the bottom 5% of all schools in the state.
7. **Equality of Educational Opportunity Study (EEOS)**: Also known as the Coleman Study, a study conducted in response to the provisions of the Civil Rights Act of 1964. Commissioned

by the U.S. Department of Health, Education and Welfare in 1966 to assess the availability of educational opportunities to children.

8. **Priority Schools:** The bottom five percent of schools identified by the TTB ranking.
9. **Focus Schools:** Schools with the largest within-school gap in achievement between the top 30% and bottom 30% performing students.
10. **Reward Schools:** Schools showing the highest improvement, highest performance or schools determined to be “Beating the Odds.”
11. **Transformation:** One of the models priority schools can adopt which addresses 11 requirements including replacing school leadership, educator evaluation and reward/replacement policies, use of data to inform professional development and instruction, family engagement, and operational flexibility.
12. **Turnaround:** One of the models priority schools can adopt which includes all the requirements of transformation but also replace 50% or more staff, and change in governance.
13. **Restart:** One of the models priority schools can adopt which closes the school and restarts with new management as a charter school
14. **Closure:** One of the models priority schools can adopt which closes the school permanently.
15. **FRProp:** Associated percentage of students in a school building who are eligible for and participate in free and or reduced-price lunch.
16. **BCODE:** This stands for Building Code which is the unique number associated with a particular school building.
17. **DNAME:** This stands for the District Name associated with a particular school building controlling school district.
18. **BNAME:** This stands for school building’s name.

19. **TtBRank:** This represents the rank of a school building using the current Michigan Department of Education Top to Bottom Ranking System.
20. **ZScore:** This stands for a building's overall z-score which calculates the building's TtBRank. The zscore is calculated by weighting a building's achievement index, improvement index, and gap index in each subject area and grade level tested. Figure 10 and Figure 11 along with Appendix D provides greater detail on calculations.
21. **QR-Adjusted:** A new calculation developed to mitigate the effects of socio-economic status by using quantile regression to rank order all schools based on TtBRank when factoring in a school buildings percentage of free and reduced-price lunch data.
22. **NewRank:** The model developed in this study that weights the current TtBRank and QR-Adjusted to develop a new ranking system which mitigate the effects of a buildings percentage of economically disadvantaged students.

### **Limitations of the Study**

This study will be narrow in focus. The study uses the data the Michigan Department of Education collects and challenges certain assumptions about successful schools. Specifically, the MDE rank orders schools based on an individual school's proficiency (50%), achievement change (25%), and achievement gap (25%) all measured by the Michigan Educational Assessment Program. This study accepts that these percentages are sufficiently accurate. The weights given to achievement, achievement change, and achievement gap are established by the Michigan Department of Education. The purpose of this study is to use the MDE ranking system provided and incorporate a metric, which would account for or recognize the effects of socio-economic status of a school building. This research does not attempt to answer the questions of whether the weighting of achievement, achievement change, and achievement gap is appropriate;



or whether the three categories, which are based on the results of an annual assessment, are appropriate for the amount of consequences and sanctions associated to a school.

The study uses free and reduced-price lunch count as a way of measuring economically disadvantaged student populations. While many educational studies use this as a measure of poverty, it can be argued (Kurki et al., 2005) that free and reduced-price lunch does not capture all relevant dimensions of poverty and because eligibility is dependent on self-reporting (families must apply), the percentages are not completely accurate.

The intent of this study is to demonstrate a relationship between the number of economically disadvantaged students enrolled in a school and a school's relative ranking on the Michigan TTB list. Additionally, this study intends to develop an alternate method of reporting school quality, one that is not as influenced by a school's percentage of economically disadvantaged students. The study does not aim to address other factors that may influence school quality.

To summarize, chapter one introduced background information, the problem, and the intent of the following research. It presented backdrop information on high stakes testing in relation to the No Child Left Behind legislation and the Race to the Top program, followed by, a description of a problem concerning Michigan Department of Education's ranking system. Finally, the chapter ended with the purpose of the study which was to investigate a connection between Michigan Department of Education's school ranking system and economically disadvantaged populated school rankings.

## **Organization of the Document**

The following chapters are organized as such:

Chapter 2 is a review of literature regarding the effect poverty has on student achievement using Coleman's (at el. 1966) report as a basis and an explanation of Michigan Department of Education (MDE) assessments and the Federal Program "Race to the Top" requirements.

Chapter 3 describes the research methodology. A Pearson Product Mean Correlation is used to provide evidence that a strong negative relationship exists between a student socio-economic status and that school building's "Top to Bottom" ranking. Then a quantile regression technique will aid in the development of a "New Ranking System." This statistical method will identify a school building's performance respective of socio-economic status.

Chapter 4 presents an analysis of the generated data complete with tables, equations, and charts.

Chapter 5 submits a summary, conclusions, and possible inferences, supported by the results of this study, and recommendations for further research.

## Chapter 2: Review of Literature

### Introduction

Currently, the Michigan Department of Education (MDE) systemically rank orders all schools in the State of Michigan from 1 to 3011 based on three criteria 1) student achievement data as measured by the Michigan Education Assessment Program, 2) a school building's achievement improvement over time, and 3) the largest achievement gap between the highest and the lowest performing subgroups. The system does not take into account a school's population of economically disadvantaged children, the percentage of special education students, the number of English as a Second Language students, or other student factors that affect student achievement. It is the belief of this researcher, that by rank ordering schools without consideration of other factors such as socio-economic status, parents, community members, and policy makers in the State of Michigan are given a false indicator of school success. To display the injustice of this assessment, this study will analyze the MDE "Top to Bottom" list and will show, similar to the Coleman (et al., 1966) report that a correlation may exist between a school's ranking and the percent of economically disadvantaged students. A secondary intent of the study is to propose an alternate model for measuring school effectiveness including student factors such as socio-economic status that research suggests influences student learning.

In order for this research to have a conceptual basis, it is important to review educational literature dealing with state and federal student assessments and the relationship between student achievement and poverty.

This review will be organized in the following manner: A discussion of poverty and its relationship to student achievement with emphasis on the Coleman Report (Colman et al., 1966), an explanation of Michigan Department of Education (MDE) assessments and the Federal Program "Race to the Top" requirements, and the chapter summary.

## Poverty and Its Relationship to Student Achievement

Finding the key to educational success for all students has been an insurmountable mountain to climb for educators, legislators, community members, and parents over past decades. Since 2001, the federal government and state governments have tried to convince the public through standards, curriculum, assessments, and rankings that schools alone have the ability to reach this goal. In contrast, many educational researchers have seen and documented the complexity of the issue in the light of student factors such as: socio-economic status (SES), housing, and parental support. Through past and present studies, researchers have tried to answer questions such as: Is poverty connected to student achievement? What school policies best addressed the needs of the economically disadvantaged? And are resources equally distributed between high economically disadvantaged schools compared to low economically disadvantaged schools? The following research has detailed some of these studies.

In 1966, Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, and York commissioned by the United States Department of Education in response to the Civil Rights Act of 1964, evaluated questionnaires completed by public school teachers, principals, district school superintendents, and 645,000 pupils in grades 3<sup>rd</sup>, 6<sup>th</sup>, 9<sup>th</sup>, and 12<sup>th</sup> from 4000 schools nationwide. Subjects from the 4000 schools participated in the survey. “The participation rates were: in the metropolitan North and West, 72 percent; metropolitan South and Southwest, 65 percent; non-metropolitan North and West, 82 percent; non-metropolitan South and Southwest 61 percent” (p. 8). The report described inequality among minority and white students in many areas in education such as facilities, resources, teacher experience, and educational background. Another result of this national survey showed the effects of socio-economic status on student learning as the most powerful predictor of school success. Using these data, Coleman et al. (1966) reported:

Schools bring little influence to bear on a child's achievement that is independent of his background and general social context... this very lack of an independent effect means the inequality imposed on children by their home, neighborhood, and peer environment are carried along to become inequalities with which they confront adult life at the end of school. For equality of educational opportunity must imply a strong effect of schools that is independent of the child's immediate social environment, and that strong independence is not present in American Schools. (p. 325)

Because of the size, depth, and width of Coleman's et al. (1966) research, it has become a landmark study.

Many researchers have studied the issues of economically disadvantaged students and their development in the school environment since the publishing of Coleman's report (Coleman et al., 1966). Similar to Coleman, Tiedt (1968) found educational programs lacking in assisting the disadvantaged student. His research emphasized the need to highly prioritize educational environments with an influx of funding and available resources. Educating teachers who understand the disadvantaged child's plight and self-concept was also a key component of his study. The child's plight included malnutrition, poor hygiene, lack of supervision at home, crowded housing conditions, and lack of educational readiness.

Brooks-Gunn and Duncan (1997) also detailed the effects of family income on children's lives using national longitudinal data sets. Their findings discussed children's health being at-risk in low-income households in the areas of low birth weights, infant mortality, growth stunting, and lead poisoning. According to the data, these at-risk factors led to serious physical disabilities, grade repetition, and learning disabilities. In agreement with Coleman et al. (1966), Brooks-Gunn et al. (1997) found that students who lived in poverty for four years and longer had assessment scores six to nine points lower than advantaged children.

In a study conducted by Ludwig, Ladd, and Duncan, (2001), low in-come families were given the opportunity to move into areas with low poverty rates. The program, Moving to Opportunity (MTO), consisted of three research groups - the experimental group, the Section- 8-only comparison group, and the control group. The experimental group received rental subsidies and required to move to low poverty areas. They also received life skills training. The Section 8-only group received rental subsidies, no life skills training, and no requirement to move to low poverty areas. The control group received no outside help (no subsidies and no training).

Similar to Coleman's et al. (1966) findings regarding the effects of poverty on children and success in school, Lutwig et al. reported,

The sensitivity of young children's outcomes to the magnitude of the change in neighborhood poverty rates that they experience suggests that MTO does not improve test scores solely through a generic moving effect. Some actual difference between high- and low-poverty neighborhoods appear to be responsible for the reported MTO program impacts.... (Lutwig et al., 2001, p. 185)

In *Inequality at the Starting Gate*, Burham, and Lee (2002) emphasized the importance of educational success in relationship to socio-economic status. They, like Coleman, stated that of all the factors associated with student achievement, "race/ethnicity, family educational expectations, access to quality child care, home reading, computer habits-SES accounts for more of the unique variations in cognitive scores than any other factor" (p. 4).

Prince, Pepper, and Brocato, (2006) reviewing data from the Kids Count Data Book in 2005 (published by the Annie E. Casey Foundation), noted:

With the evidence available that indicates the relationship between poverty, child well-being, and high school success, it seems that taking care of the needs of our young citizens could possibly be a factor that would break the cycle of poverty. (p. 26)

Further data collected by Prince (et al. 2006), pointed to the relationship between family income and composite scores of the ACT High School Profile for the state of Mississippi – “the average composite scores for students reporting family incomes below 18,000 was 16.3”... in order to reach 19, the family income had to exceed \$42,000 (p. 26).

Searching for a succinct picture of the relationship between student academic achievement and socio-economic status, Sirin (2005) completed a meta-analytical review of research between 1990 and 2000. Gathered from 74 independent samples, the study involved 101,157 students, 6,871 schools, and 128 school districts. Similar to Coleman (et al. 1996), Sirin found a relationship between academic achievement and SES, however, unlike Coleman, he documented that the relationship increased significantly across various levels of schooling except for high school which was the same as elementary school. (Sirin owned this outcome to the lack of longitudinal research on high school dropout data.)

Sirin (2005) concluded in his research on educational and social policy:

As the main finding of this review shows, school success is greatly influenced by student’s family SES. This finding indicates that our society may be failing in one of the greatest commitments of every modern society, that is, the responsibility to provide educational opportunities for each student regardless of social and economic background.

(p. 445)

Studying degrees of poverty and student achievement, Sorhaindo (2003) extracted information from the Miami-Dade County Public Schools data base and the Standard Achievement Test scores for the 1997-98 school year at the fourth and eighth grade level. Sorhaindo defined the degrees of poverty in terms of free and reduced-price lunch counts. Reduced-price lunch students were considered living in low poverty, students who applied for and were granted free lunch were considered medium poverty, and high poverty were students

who automatically qualified for free lunch. Fifteen hundred students were randomly selected that fit the criteria for each level of poverty and grade level. Thus, 4500 fourth graders were participants and 4500 eighth graders were participants. The design of the study conformed to a 2 (grade level) X 3 (poverty level) factorial design. Sorhaindo (2003) found results in support of the Coleman et al. report (1966):

A comparison of the mean scale scores on the Stanford Achievement Mathematics Application and Reading comprehension subtests, at both the 4<sup>th</sup> and the 8<sup>th</sup> grades, revealed significant differences in achievement among the three different poverty groups. ...The low poverty group had a mean scale score that was significantly higher than that of the medium poverty group and the medium poverty group had a mean scale score higher than the high poverty group. (p. 36)

Fuhrman and Lazerson (2005), commenting on the Coleman report in *The Public Schools*, noted that researchers continue to pose questions over the school's ability to reduce economic and social inequalities especially, when governments fail to address structural barriers to jobs and social status. They stated, "It remains unlikely that schools alone can enfranchise peripheral groups into civil society or integrate the poor into middle-class occupations" (p. 88).

In 2009, Hargreaves and Shirley also wrote in defense of the effect of SES on student educational success in *The Fourth Way: The Inspiring Future for Educational Change*. They stated that after years of studying school effectiveness the reason for most differences in student outcomes was due to outside forces. They continued to stress the importance of school standards; however, their main focus was the significance of schools working with communities and communities investing in schools.

Chamberlin (2007) studied poverty as a predictor of student achievement on a statewide high-stakes testing program. In 2007, he stated, "Over the past five years the Colorado



Department of Education (CDE) has used the results of the Colorado Student Assessment Program (CSAP) to rate public school performance on the School Accountability Report (SAR)” (p. 21). Chamberlin (2007) compared 2001 and 2004 data from the (CSAP) and the Colorado Department of Education’s report for these same years regarding free and reduced-price lunch statistics. He discovered that poverty had “a very large negative effective size relationship with student achievement in 2001 and 2004” (p. 23).

Ladd (2012) in her address to the Association for Public Policy Analysis and Management tackled the issue of poverty and student achievement. She stated that in the 1940’s the gap in reading test scores was a standard deviation of 0.60 between economically disadvantaged and advantaged students whereas in 2000 standard deviation doubled to 1.25. In her analysis, Ladd also reported on the difference among states in test scores and the treatment of students living in poverty versus students in middle class households. For example, Massachusetts test scores “far exceed predicted levels given the state’s 12 percent child poverty rate, presumably in part because the state implemented an aggressive and comprehensive education reform strategy” (p. 206) focused on young children; whereas, in California student achievement test scores were below those predicted for its 20 percent poverty rate. Ladd (2012) stated that California has a long history of limited funding in education.

Ladd (2012) also discussed the government’s No Child Left Behind policy and its presumption that schools had the ability to offset the issues economically disadvantaged children bring to the classroom. According to Ladd’s perspective, NCLB policy denied the correlation between low family income and student achievement. She suggested that more testing to increase student achievement did nothing to help the disadvantaged child, rather, an all-out assault similar to Lyndon Johnson’s ‘war on poverty’ is needed since 15.1 percent of the United

States population lived in poverty and 21 percent of its children were economically disadvantaged.

In agreement with Ladd, Tienken (2012) wrote an editorial in the *AASA Journal of Scholarship and Practice* entitled Poverty Matters. He confronted the bureaucrats who claimed poverty is not the problem and challenged the school administrators to begin controlling the message of the definite relationship between poverty and student achievement. Tienken (2012) scripted,

Although the results from scientific studies suggest that students from poverty will make one year or one-and-a-half year's worth of growth during the school year, so will their working and middle class peers. Thus, the "achievement gap" will never close without a sustained national commitment to close the societal gap. While middle class peers spend their summers in more academically enriched environments and gain an extra month of summer learning, children from poverty lose up to three months of achievement. Thus, the gap can actually grow with time. (p. 4)

Similar to Tienkin's (2012) editorial, Horn and Wilburn (2013) evaluated Tennessee's school reform program and its winning application for Race to the Top that addressed the needs of the economically disadvantaged student. They learned that present day policy analysts ignored the lessons of earlier researchers regarding school reform and instead, "laser" focused on high-stakes testing of the 90's research, and dismissed practical advice given by university departments. In *The Mismeasure of Education*, they stated,

What began for many as an idealistic battle against achievement gaps has become a myopic fixation on raising test scores at any cost, including the quality of education of those targeted for help and the professional careers of the helpers. (p. 207)

After studying the school reform movement and the effects of federal mandates, Coley and Baker (2013) wrote that today's educational system failed to meet its goal - closing the student achievement gap for the economically disadvantaged. Their research found little evidence that current school improvement strategies reduced the influence of poverty on educational opportunity. They claimed this was because:

Emphasis has shifted from providing more equitable and adequate funding for schools and targeted services for disadvantaged students and toward policies directed at developing and implementing common core standards, improving teacher quality through the design and implementation of quantitative evaluation metrics, widespread use of test-based accountability systems, and providing wider-ranging choice among traditional district schools, charter schools, and through private school vouchers. (p. 40)

Tienken (2011) researched the test-based accountability systems used by most states and discovered a structural inequity regarding cut scores and test reporting among economically disadvantaged (ED) students. Thus, economically disadvantaged students are faced with two dilemmas: living and growing up in a bureaucracy that ignores poverty, and state departments of education that overlooks skewed test scores. Between 2008 and 2010, Tienken (2011) collected available state test technical manuals and databases from 50 states that use high school exams. He implemented a non-experimental, exploratory, descriptive cross-sectional design to analyze the conditional standard of error of measurement (CSEM) and its effect on individual test-score interpretation. He found,

An estimated 166,305 students were miscategorized at least once in an academic year as less than proficient on their statewide mandated LA test because of CSEM and the fact that state education agency personnel do not account for it at the student level. Similarly, an estimated 164,982 students were categorized as less than proficient on their statewide

mandated math test...Because students in the ED group scored closer to their states' proficiency cut points more frequently than their non-ED peers, the data suggested CSEM is an issue that disproportionately affects students who are economically disadvantaged compared to students who are not economically disadvantaged. (p. 265)

Researching student achievement and poverty in the state of Florida, Moore (2011) utilized Free and Reduced-Price Lunch (FRPL) as a proxy for poverty and Florida Comprehensive Assessment Test (FCAT) as an indicator of student achievement. He discovered a strong correlation between these variables (-0.761 to -0.855) from 2004-2009. "Over the span of years observed, as poverty levels increased in Florida schools, 76 percent to 86 percent of the corresponding student achievement scores decreased. These connections provided measured relationships between poverty and student achievement" (p. 139).

In the 1970s, Finland was similar to the United States struggling to close the academic achievement gap between the economically disadvantaged students and the advantaged students. Since then, Finland's school improvement program has emerged successfully. Darling-Hammond (2010) found that Finland's educational reform took the opposite direction of the United States' movement. Through decentralization, less external testing, and highly trained teachers designing curriculum around slim national standards, Finland has risen to first among the Organization for Economic Cooperation and Development (OECD) nations. Key to Finland's educational reform was equitable funding and intense training for all teachers. Hammond further discovered,

More than 99 percent of students now successfully complete compulsory basic education and about 90 percent complete upper secondary school. Two-thirds of these graduates enroll in universities or professionally oriented polytechnic schools. ...By 2006, Finland's between-school variance on the PISA (Program for International Student

Assessment) science scale was only 5%, whereas the average between-school variance in other OECD nations was about 33 percent. (2010, p. 3).

In April of 2006, Uyeno, Zhang, and Chin-Chance presented a paper at the Annual Meeting of the American Educational Research Association regarding demographic factors and student performance. Using data from the Hawaii Department of Education and the Hawaii State Assessment with a set of 9,257 third graders, 9602 fifth graders, 8,043 eighth graders, and 6,504 tenth graders, Zang et al. shared, “In the four grades examined students eligible for free and reduced-price lunch are found to have significantly higher failure rates than their ineligible peers” (p. 5).

Urso (2008) in his study, *Student Achievement in High-poverty Schools: A Grounded Theory on School Success on Achievement Tests*, examined the results of the Ohio Department of Education initiative: Schools of Promise (a program that recognizes schools in high poverty areas that perform well on achievement tests). In 2006-2007, 194 schools were recognized out of a possible 1,597. This meant 92% of the schools serving economically disadvantaged students failed to meet the benchmarks of Schools of Promise. Urso stated, “This is a powerful figure that clearly indicates the significance of social class on student learning. It supports a stance that a vast majority of poor children continue to be left behind” (p. 134).

Struggling like Ohio to find the answer to student equity and academic achievement, New Jersey provided additional funding to 31 special needs school districts (known as the Abbott schools - labeled from a Supreme Court decision *Abbott v. Burke*). These schools were in the inner city enrolled with predominantly low income African-American and Latino students. According to Everett (2006), New Jersey equalized the foundation grant for all schools in the state to \$11,000 per student, plus the Abbott schools receive an additional \$2,000 to support at risk and supplemental programs. However, a review of the 2004 statewide High School

Proficiency Assessment still emphasized the achievement gap among White, African-American, and Latino students.

Eighty-one percent of White students demonstrated proficiency in the Mathematics section of the test compared to 38% and 49%, respective, for the African-American and Latino student populations. White students reached a level of 90% on the Language Arts section of the test, compared to 65% level of proficiency achieved by both African-American and Latino students. The disadvantages derived from racial and economic school segregation have not been eliminated despite additional school funding (Everett, 2006.).

In *The Geography of Inequality; Why Separate Means Unequal in American Public Schools*, Logan, Minca, and Adar (2012) found, similar to Everett's study, that a greater percentage of black and Hispanic students attend high poverty schools in the inner city. They also discovered that, "...independent of racial segregation, class segregations is associated with a lower quality school available to minority students" (p. 289).

Jargowsky and El Komi (2009) work supported Everett's (2006) study. They found:

Neighborhood always mattered. Even if neighborhood conditions are less robust than school context effects, concern about neighborhood conditions is still justified.

Reducing the concentration of poverty and economic segregation may be the easiest way to decrease the 'savage inequalities' that exist between schools. (p. iv)

Pereira (2011) also confirmed Everett's conclusions regarding the effect of socio-economic status (SES) on student achievement. Using the New Jersey Department of Education databases including the scores of the New Jersey Assessment of Skills and Knowledge at the 8<sup>th</sup> grade level and through multiple regression, Pereira found, "...the results of the study reflect what the literature suggests, that SES remains a strong predictor of student achievement" (p. 234).

According to her research, an individual's SES affected the language arts and mathematics scores on the New Jersey assessment.

Like Ohio and New Jersey, the Michigan legislature struggled to find the key to student equity and student academic achievement. However, contrary to New Jersey's program of increasing the foundation grant for each student, the Michigan legislature decreased student funding for every school in the state. To address the equity and achievement issue, the Michigan Department of Education developed a new program whereby every school is ranked from 1 to 3011 placing more importance on the Michigan Education Assessment Program (MEAP). Because of these rankings, schools are portrayed as successful or failing or mediocre in the eyes of parents, community members, and government officials.

The frustration level of educational personnel increased with the importance state officials placed on the MEAP without considering extenuating circumstances such as student poverty levels or special education needs. In 2002, Maylone studied the relationship between socio-economic factors and district scores on the MEAP. His research "...provided a correlational/predictive and multivariate analysis of several district level socio-economic status (SES) factors and aggregate high school student MEAP achievement. Michigan Department of Education databases, United States Census bases, and Standard and Poor's data bases provided the data sources" (p. 13). The analysis encompassed 522 school districts (K- 12) in Michigan in the year 2000. The results of Maylone's study (2002) emphasized a strong relationship between average family income and average number of parents per household and MEAP scores. He also found that high stakes testing increased the student achievement gap between low SES and high SES.

Michigan's three-year old Top to Bottom school ranking program has failed to close the achievement gap between the economically disadvantaged and the advantaged students.

Research on the effectiveness of ranking schools as part of a school reform process was lean. Few researchers investigated the issue because of the timeline of the data, three years. In the United States, Michigan was the only state to rank all its schools in its school improvement plan by the size of the gap between the highest 30% and the lowest 30% of student scores.

Spalding (2013), researcher for the Mackinac Center for Public Policy - known for its affiliation with the charter school movement and its support of school reform, examined Michigan's ranking system and found that 55% of the Top to Bottom (TTB) list correlated with school poverty rates and federally funded free lunch. She explained, "These results matter because TTB rankings are used to impose consequences on low-ranking schools. Such a system risks penalizing schools based not on their actual performance, but rather on the portion of low-income students they happen to enroll" (Spalding, 2013, p. iii).

An example of the risk involved using TTB methodology was Thirkell Elementary, part of the Detroit Public School System. Even though Excellent Schools Detroit, a nonprofit coalition of community leaders, labeled Thirkell Elementary the best school in the Detroit area, and even though, United States Secretary of Education Arne Duncan visited Thirkell to honor the school's success and progress, its Top to Bottom ranking only was in the bottom 1% (Spalding, 2013).

In the Detroit News, another sign of a TTB mismeasurement was a school within the Bloomfield Hills School District. In Michigan's ranking system, Lahser High School recorded a 97 percent graduation rate and consistently scored in the top percentile on state assessments, and yet was identified as a school that needs improvement, "particularly in educating its bottom 30% students as well as its special education, low -income, and African-American student populations" (Chamber, 2013, p. 2).



Advertising misinformation in the school reform movement has created more inequality among economically disadvantaged in some areas than less. In the past, parents chose a home close to work or family. However, with the age of instant knowledge, homes are chosen by investigating school systems and checking school report cards and rankings. In *Penalizing Diversity: How School Rankings Mislead the Market*, Glynn and Waldeck (2013) found:

The distortions matter. Misinformation about school quality may steer families away from areas they otherwise would have selected for price, neighborhood character, commuting distance, or other reasons. This in turn can lead to residential and school segregation and potentially harm educational outcomes for subgroups facing an achievement gap. (p. 467)

Instead of school rankings, Glynn and Waldeck (2013) suggested a new model report card for states to share with the public. The report card would contain a headline summary including school quality and subgroups like the school's diversity makeup.

### **Michigan Department of Education Assessments and the Federal Program “Race to the Top”**

In 2001, looking for answers to address the needs of the economically disadvantaged population, lawmakers turned to effective school reform data disregarding Coleman's (1966) research on poverty. They surmised from the school improvement data that schools had the ability, obligation, and power to assist all children in achieving academic success. Therefore, Congress passed a federal law - No Child Left Behind (NCLB). To adhere to the law's guidelines, states submitted accountability plans to the federal government detailing penalty procedures if school districts failed to meet NCLB assessment targets (Hamilton et al., 2002, pp. 20-21). Part of every state's plan included a growth model where all students reached 100% proficiency by 2014. As the 2014 deadline approached, anxiety levels of school administrators

and state leaders increased. Like other states, Michigan felt the pressure of not meeting the NCLB targets.

President Obama, hoping to continue the school reform movement (since Congress has not yet reenacted NCLB legislation), developed a new program. In 2010, he introduced Race to the Top (RttT). This competition rewarded states and ultimately, school districts, that led the way in comprehensive, coherent education reform in four key areas: “standards and assessments; building data systems measuring student growth; recruiting, developing, and retaining effective teachers and principals; and turning around the lowest-performing schools” (United States Department of Education, Race to the Top, 2010).

Forty states, including Michigan, applied for the first phase of the Race to the Top (RttT) competitive grant. Only two states, Delaware and Tennessee, met RttT’s requirements and so, won the first phase of the grant. Not defeated, Michigan aggressively identified school reform efforts by creating new education laws in January of 2010. These laws provided a statewide structure for school improvement, especially for the lowest performing schools. (Michigan Legislature Website, 2010).

Michigan’s method for identifying and reporting school data included a “Top to Bottom” ranking of all qualifying schools in the state. The rankings are based on student achievement at the elementary, middle, and high school levels; improvement in student achievement over time; the largest achievement gap between two student subgroups - the top 30% versus the lowest 30%; and graduation data where appropriate. In addition to the “Top to Bottom” rankings, the state distinguished some schools as Priority, Focus, or Reward schools. Priority schools are schools in the bottom 5% of the Top-to-Bottom list; Focus schools are 10% of schools with the largest achievement gaps; Reward schools are schools in top 5% of the Top-to-Bottom list or in

top 5% in improvement composite or “Beating the Odds” schools (Appendix D) (Michigan Department of Education, 2010).

### **Summary**

For many decades, educators, legislators, parents, and community members have sought to equalize educational opportunities for all children. Unfortunately, their intense efforts have not achieved this goal. A formidable nemesis still exists: poverty. This chapter review documented the relationship between poverty and student achievement. A major emphasis was a landmark study - the Coleman et al. report (1966). Many of the studies delineated similar findings to the Coleman report. The findings included substantial evidence between poverty and poor student achievement. Studies mentioned factors inherent in low socio-economic environments such as safety, nutritious diets, low birth weights, single parents, and urban plight, to name a few. The literature review then detailed some states’ efforts to combat the issues of poverty and improve student achievement. A discussion with documentation addressed high stakes testing and school rankings, and its relationship to student achievement, school quality, and poverty. Finally, the chapter described Michigan’s assessment program featuring school rankings and the Race to the Top competitive grant.

### **Chapter 3: Methodology**

The Michigan Department of Education (MDE) systemically rank orders all qualifying schools in the State of Michigan based on three criteria 1) student achievement data as measured by the Michigan Education Assessment Program (MEAP), 2) a school building's achievement improvement over time measured by the MEAP, and 3) the largest achievement gap between the highest and the lowest performing subgroups measured by the MEAP. The system does not take into account a school's population of economically disadvantaged students, which affects a school student achievement results. It is the belief of this researcher, that by rank ordering schools without consideration of socio-economic status, parents, community members, and policy makers in the State of Michigan are given a false indicator of school success. To display the injustice of this assessment, the following research design will analyze the MDE "Top to Bottom" list and show, similar to the Coleman (et al., 1966) report, that a correlation exists between a school's ranking and the percent of economically disadvantaged students. A secondary intent of the study was to propose an alternate ranking model that includes socio-economic status when placing a value on a school's relative rank.

#### **Methodology Research Design**

In order to determine if a school district's "Top to Bottom" ranking has an association with the school building's socio-economic status, and if that association exists to determine whether it is statistically significant, a Pearson product moment correlation coefficient calculation will be used.

#### **Research Hypothesis**

Therefore, the null hypothesis is:

H<sub>0</sub>: There is no correlation between percent of economically disadvantaged students within a school and that school's ranking, or representing the null hypothesis mathematically:

$H_0: \rho = 0$ ;  $\rho$  represents the correlation between (TtB Rank vs. FRProp)

### **Statistical Methodology**

The Michigan Department of Education publically releases data on school demographics and “Top to Bottom” rankings. Specifically, this study analyzed the Michigan Department of Education data for the 2011-12 and 2012-13 school years. The 2011-12 and the 2012-13 data sets released by the Michigan Department of Education included 227 unique variables with 2898 schools for 2011 and 2885 schools for 2012. For the purposes of this study, the variables of interest are Building Code=BCODE, District Code=DCODE, District Name=DNAME, Building Name=BNAME, Top to Bottom Final Calculation=TtB Rank, School Building’s Overall Z-Score=Zscore, and Building Free and Reduce Lunch-Price Percentage=FRProp.

A Pearson product-moment correlation coefficient will measure the strength of a potential linear association using 2011-12 data and 2012-13 between two variables: TtB Rank and FRProp. A plot will show TtB Rank versus FRProp for the 2011-12 (Figure 4) and 2012-13 (Figure 5) data sets. The study seeks to demonstrate through a Pearson correlation coefficient calculation to confirm the data for TtB Rank and FRProp are continuous dependent variables.

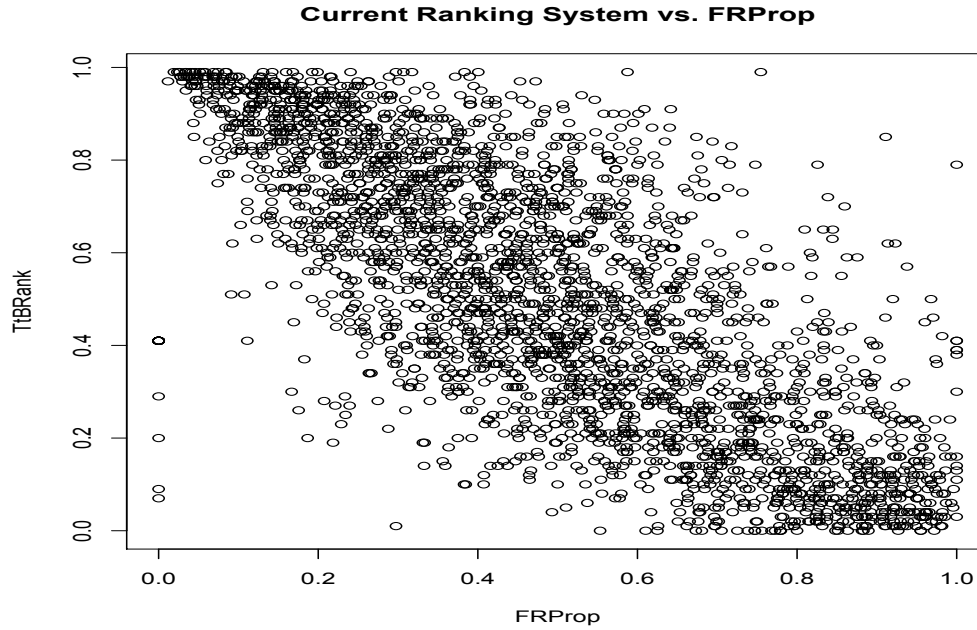


Figure 4. Scatterplot of Michigan's 2011-12 Top to Bottom Ranking Compared to a School Building's Percentage of Free and Reduced-Price Lunch

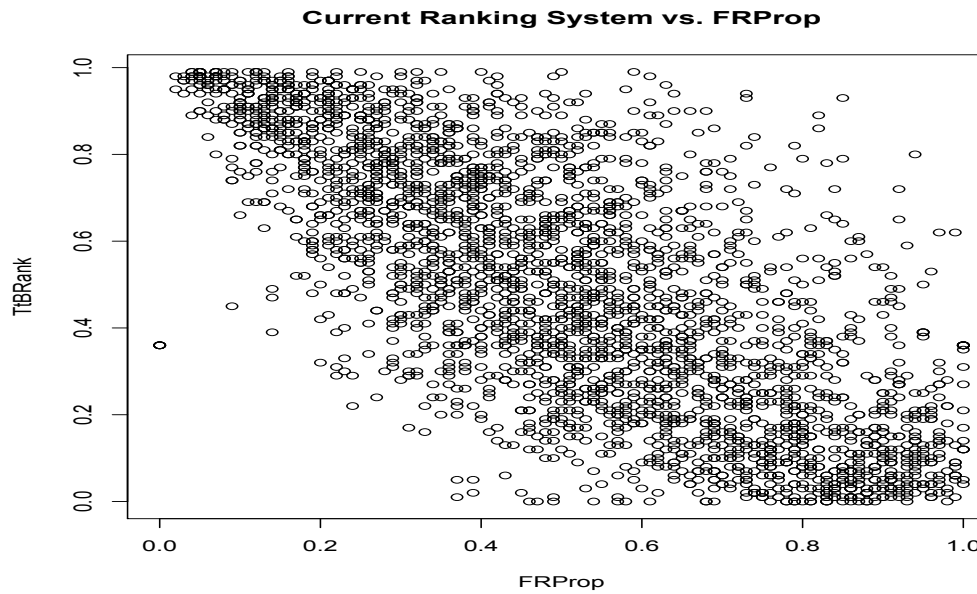


Figure 5. Scatterplot of Michigan's 2012-13 Top to Bottom Ranking Compared to a School Building's Percentage of Free and Reduced-Price Lunch

## **Validity and Reliability of the Research Process**

If Pearson correlation coefficient calculation returns a p-value appropriate to reject the null hypothesis and a relationship is determined, then the study aims to design a new system which will account for the impact of socio-economic factors that could replace the current “Top to Bottom” ranking system.

Thus, the intent of this research was to prove that a strong negative relationship exists between student socio-economic status and that building’s “Top to Bottom” ranking and to develop a “New Ranking System” through a statistical method that systematically identifies school building’s performance respective of a predicted quantile regression and incorporates an appropriate weight to that new value. To accomplish this, a quantile regression technique will be utilized. Quantile regression is a type of regression, which results in approximating the conditional quantile of a response variable (Zscore) given certain values of the predictor variable (FRProp).

Mosteller and Tukey (1977) in commenting on simple regression models wrote, “What a regression curve does is give a grand summary for the averages of the distributions corresponding to the set of  $x$ s. We could go further and compute several different regression curves corresponding to the various percentage points of the distribution and thus get a more complete picture of the set” (Koenker, 2005, p. 1). Quantile regression attempts to offer a more complete regression picture.

## **Explanation of New Ranking System**

Once a quantile regression is generated using the 2011-12 and 2012-13 school year data, a new quantile regression rank “QR-adjusted” was generated to reflect a school building’s state-wide ranking of achievement. Once this analysis was complete a new ranking system “NewRank” is calculated that combines the Michigan Department of Education’s current Top to

Bottom system which is highly correlated to a school's percentage of free and reduced-price lunch, with the "QR-adjusted" which has little to no relationship to the percentage of free and reduced-price lunch. That is,

$$\text{New Rank} = \gamma(\text{TtB Rank}) + (1 - \gamma)(\text{QR-adjusted})$$

such that  $0 \leq \gamma \leq 1$ . Given a predetermined correlation,  $\gamma$ , which represents the weight of the TtB Rank (Old System), and  $(1 - \gamma)$ , which represents the weight assigned to QR-adjusted (New System), can be calculated such that the correlation of a school's ranking (New Rank) to the percent of students on free and reduced-price lunch is satisfied. Research by Cohen, (1988, 1992) suggests that two variables are considered to have a "minimal effect" if the correlation is between  $-0.2 < r < 0.2$ . Through a correlation derivation or a visual inspection of graphing methods, the weights to TtB Rank and QR-adjusted can be assigned to assure predetermined correlation.

It is the proposition of this researcher that using a correlation a bit higher could be supported. That is, Spalding (2013), as outlined in Table 1, and the associated correlation outlined in Table 2, stated that Michigan had the highest percent of ranking explained by poverty.



Table 1

*School Accountability Systems in Relation to Poverty Rates*

State	School Year	Percent of Ranking Explained by Poverty (R <sup>2</sup> )
Michigan	2012-13	55%
	2011-12	56%
	2010-11	61%
Florida	2012-13	47%
	2011-12	47%
Wisconsin	2011-12	42%
Oklahoma	2011-12	35%
Ohio	2011-12	35%
	2010-11	35%
Maine	2011-12	32%
Indiana	2011-12	30%
Arizona	2012-13	12%
	2011-12	13%
	2010-11	11%

Source: See "Appendix A: Data Sources: School Accountability Systems and School Poverty Rates"

Table 2

*Translation of a State's Accountability Systems R Squared Values to Correlation Coefficient (r) in Relation to Poverty*

State	School Year	R squared	r
Michigan	2011-12	56%	-0.748
Florida	2011-12	47%	-0.6857
Wisconsin	2011-12	42%	-0.6481
Oklahoma	2011-12	35%	-0.5916
Ohio	2011-12	35%	-0.5916
Maine	2011-12	32%	-0.5657
Indiana	2011-12	30%	-0.5477
Arizona	2011-12	13%	-0.3601

Using this data chart, if a correlation of -0.35 was utilized, the State of Michigan would move from the state with a ranking system most strongly correlated to poverty to below Arizona, which

has the weakest correlation. Regardless of the selection of the new  $r$  value, the NewRank system would allow for weights to be adjusted to assure this “acceptable” correlation level.

### **Summary**

To accomplish the intent of this study, a Pearson product moment correlation coefficient will show a statistically significant negative relationship exists between student socio-economic status and that building’s “Top to Bottom” ranking. Then, using a quantile regression technique the researcher will identify a “NewRank” system that uses the state’s current Top to Bottom ranking system in conjunction with a school building’s success when factoring in the school’s percentage of free and reduced-price lunch population.

## Chapter 4: Findings and Data Analyses

Over the past three years, the Michigan Department of Education (MDE) has released a “Top to Bottom” list of schools. Based on student achievement and graduation data for high schools, the MDE, through z-score standardization, has ranked ordered all the schools using at least 30 full academic year students in two testing content areas. The release of these data, in rank order fashion, has generated many questions and controversy in school districts across the state. Many district personnel, community members, and parents have questioned the validity of the measurement, which is based solely on student achievement test data without any consideration to other student factors, especially, the socio-economic status of the students. This caused the birth of the study.

Therefore, the purpose of this research was to analyze the MDE’s “Top to Bottom” list and show that a correlation exists between a school’s “ranking” and the percent of economically disadvantaged students attending the school using 2011-12 data (Appendix B) and 2012-2013 (Appendix C) school year data. In the 2011-12 school year, 2898 schools made up the data set, and in the 2012- 2013 school year, 2885 schools made up the data set.

The second intent of the study was to develop an alternate model of ranking schools, one that included consideration of the socio-economic status of the students in the school building.

To investigate whether a statistically significant relationship exists between a school building’s “Top to Bottom” rank (TtBRank) and that building’s percentage of free and reduced-price lunch population (FRProp), the following null hypothesis was used:

$$H_0: \rho = 0$$

$\rho = \text{correlation between TtBRank and FRProp}$

A hypothesis is a conjectural or a formal statement suggesting there is an expected relationship between a dependent (TtBRank) and independent variable (FRProp; Crewell, 1994;

Ary, Jacobs & Razavieh, 1984; Kerlinger, 1956). A Pearson correlation coefficient calculation and appropriate degrees of freedom (N) will return a probability value which will allow either an acceptance of  $H_0$  or rejection of the  $H_0$ .

Using R, a Pearson correlation coefficient calculation with the dependent variable (TtBRank) and independent variable (FRProp) on the 2011-12 school year data was analyzed which returned the following results:

```
cor.test(Data2011Good$TtBRank,Data2011Good$FRProp)
```

Pearson's product-moment correlation

```
data: Data2011Good$TtBRank and Data2011Good$FRProp
t = -61.4975, df = 2896, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
-0.7679205 -0.7363163
sample estimates:
cor
-0.7525514
```

Similarly, a Pearson correlation coefficient calculation was performed using the 2012-13 school year data:

```
cor.test(Data2012Good$TtBRank,Data2012Good$FRProp)
```

Pearson's product-moment correlation

```
data: Data2012Good$TtBRank and Data2012Good$FRProp
t = -58.7223, df = 2883, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
-0.7541812 -0.7209225
sample estimates:
cor
-0.7379997
```

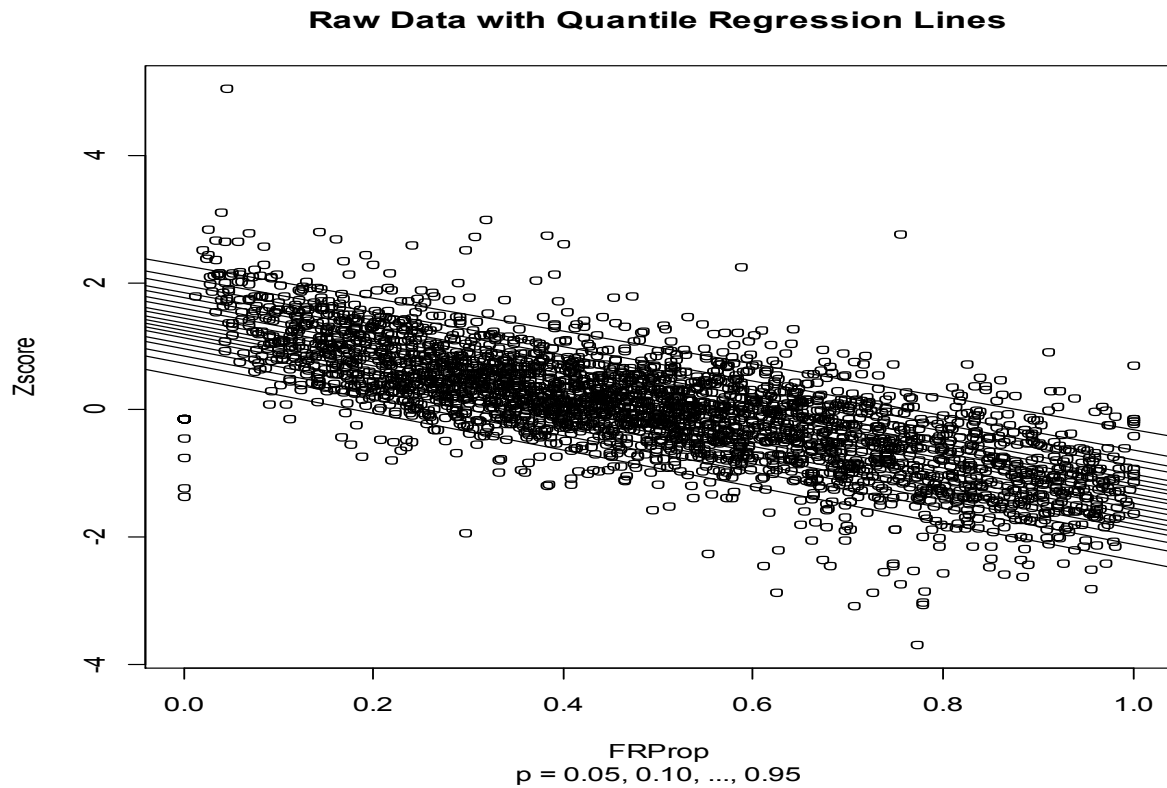
Both the 2011-12 school year data and 2012-13 school year data revealed a p-value of < 0.0001, which would support the rejection of  $H_0: \rho = 0$ . While it is important to note that

correlation does not suggest causation, the 2011-12 and 2012-13 school year data clearly suggests that there is a strong negative correlation (Cohen,1988,1992) between a school building's Top to Bottom Ranking (TtBRank) and that building's free and reduced-price lunch population (FRProp). Therefore the null hypothesis is rejected.

The next portion of the study was to determine an alternate method to calculate and report a school rank, which includes the school's performance when considering the school's socio-economic status of the student body. Thus, the goal of this research was to develop a new method of ranking schools. This new ranking system factors in a school's poverty level, as measured by free and reduced-price lunch. This is accomplished by calculating the school's relative performance measured by the predicted quantile regression line. The basis of the model builds upon the concept of quantile regression first described by Mosteller and Tukey (1977) but more robustly, by the work of Koenker (2005). Once schools have been ranked based on relative performance (QR-adjusted), a new ranking system (NewRank) is established by weighting the current TtBRank and the QR-adjusted.

$$\text{NewRank} = \gamma(\text{TtBRank}) + (1 - \gamma)(\text{QR-adjusted})$$

Regression quantiles were fit to the 2011-12 school year data (Figure 6). The response variable was Z-score and the (single) independent variable was FRprop (i.e. proportion of free/reduced-price lunch). This data set consisted of 2,898 schools. The quantiles fit were 0.05, 0.10, 0.15, ..., 0.95. Figure 6 below shows the raw data with the corresponding regression quantile lines.



*Figure 6.* Quantiles Fit at the 0.05, 0.10, 0.15, ..., 0.95 2011-2012 Top to Bottom Data

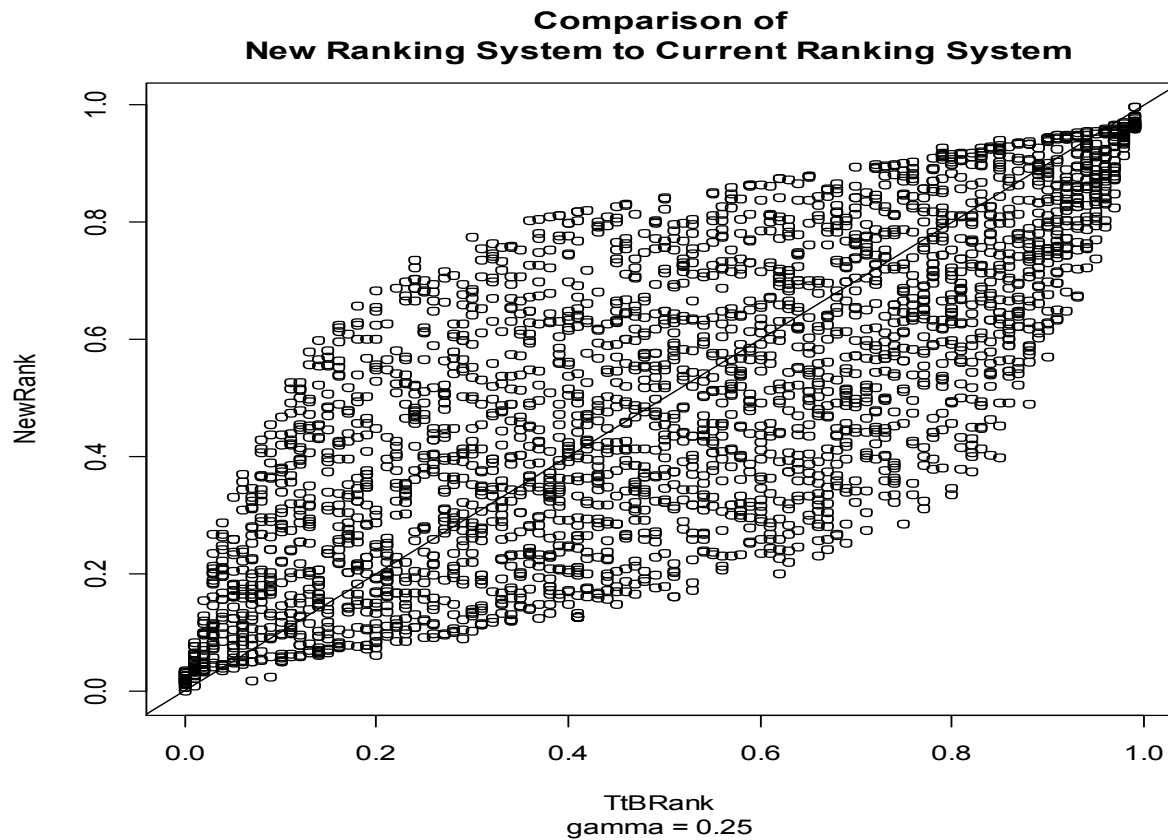
Lower lines correspond to smaller values of  $p$  (i.e. percentiles) and higher lines correspond to larger values of  $p$ .

Once these quantile regression lines are determined, it is possible to estimate the percentile of each school. This estimate actually adjusts for the value of FRprop. The new percentiles (NewRank) are then determined via a linear combination of TtBRank and the quantile regression adjusted percentiles:

$$\text{NewRank} = \gamma(\text{TtBRank}) + (1 - \gamma)(\text{QR-adjusted})$$

The new percentiles are plotted against the old percentiles (i.e. TtBRank) in Figure 7 below with  $\gamma = 0.25$ .

## New Ranking vs MDE Top to Bottom Ranking



*Figure 7.* Scatterplot of New Ranking System Compared to Current Top to Bottom System

If the two ranking systems were the same (i.e.  $\gamma = 1$ ), then all of the observations would fall along the identity line (i.e. the line  $\text{NewRank} = \text{TtBRank}$ ). Therefore, some schools that were originally ranked “high” are now ranked “low” and vice versa. Tables 3 and 4 displays the comparison between and highlights the schools with the most significant positive change from the current top to bottom ranking system to the new ranking system utilizing 2011-12 and 2012-13 data, respectively.

### School Buildings with the Largest Positive Change

Table 3

*Schools with the Most Significant Positive Difference between New Ranking System and Current Top to Bottom System using 2011-12 Data*

<b>School</b>	<b>FRProp</b>	<b>Zscore</b>	<b>TtBRan</b>	<b>NewRank</b>	<b>Diff</b>
Oakland International Acad. - Interm.	0.99	-0.6013	0.24	0.74	0.5
Buchanan School	0.98	-0.7373	0.2	0.68	0.48
East Leonard School	0.98	-0.8021	0.18	0.66	0.48
Cesar Chavez Middle School	0.97	-0.6022	0.24	0.72	0.48
Memorial Elementary	1	-0.4194	0.3	0.77	0.47
Heavenrich School	0.95	-0.6314	0.23	0.7	0.47
Covert Elementary School	0.96	-0.6853	0.22	0.69	0.47
Cesar Chavez Academy Elementary	0.96	-0.74945	0.2	0.66	0.46
Mid-Michigan Leadership Academy	0.95	-0.6191	0.24	0.7	0.46
Bennett Elementary School	0.94	-0.6090	0.24	0.7	0.46
Farmington Elementary School	1	-0.924	0.16	0.62	0.46

Table 4

*Schools with the Most Significant Positive Difference between New Ranking System and Current Top to Bottom System using 2012-13 Data*

<b>School</b>	<b>FRPro</b>	<b>Zscore</b>	<b>TtBRan</b>	<b>NewRank</b>	<b>Difference</b>
Universal Academy	1	-0.6439	0.21	0.68	0.47
El-Hajj Malik El-Shabazz Academy	1	-0.4810	0.27	0.73	0.46
Cesar Chavez Academy Intermediate	1	-0.7693	0.17	0.63	0.46
Great Lakes Academy	0.98	-0.6227	0.22	0.67	0.45
Clemente, Roberto Academy	0.98	-0.6182	0.22	0.67	0.45
Arts and Technology Academy of Pontiac	1	-0.3805	0.31	0.76	0.45
Victory Academy Charter School	0.98	-0.4424	0.28	0.73	0.45
Saginaw Preparatory Academy	0.97	-0.4785	0.27	0.72	0.45
Covert Elementary School	0.97	-0.4785	0.27	0.72	0.45
East Leonard School	0.97	-0.5608	0.24	0.69	0.45

highlight



### School Buildings with the Largest Negative Change

Consequently, Tables 5 and 6 enumerate the comparison between the NewRank system and current Top to Bottom system and highlights the school buildings with the most significant negative change utilizing 2011-12 and 2012-13 data, respectively.

Table 5

*Schools with the Most Significant Negative Difference between New Ranking System and Current Top to Bottom System using 2011-12 Data*

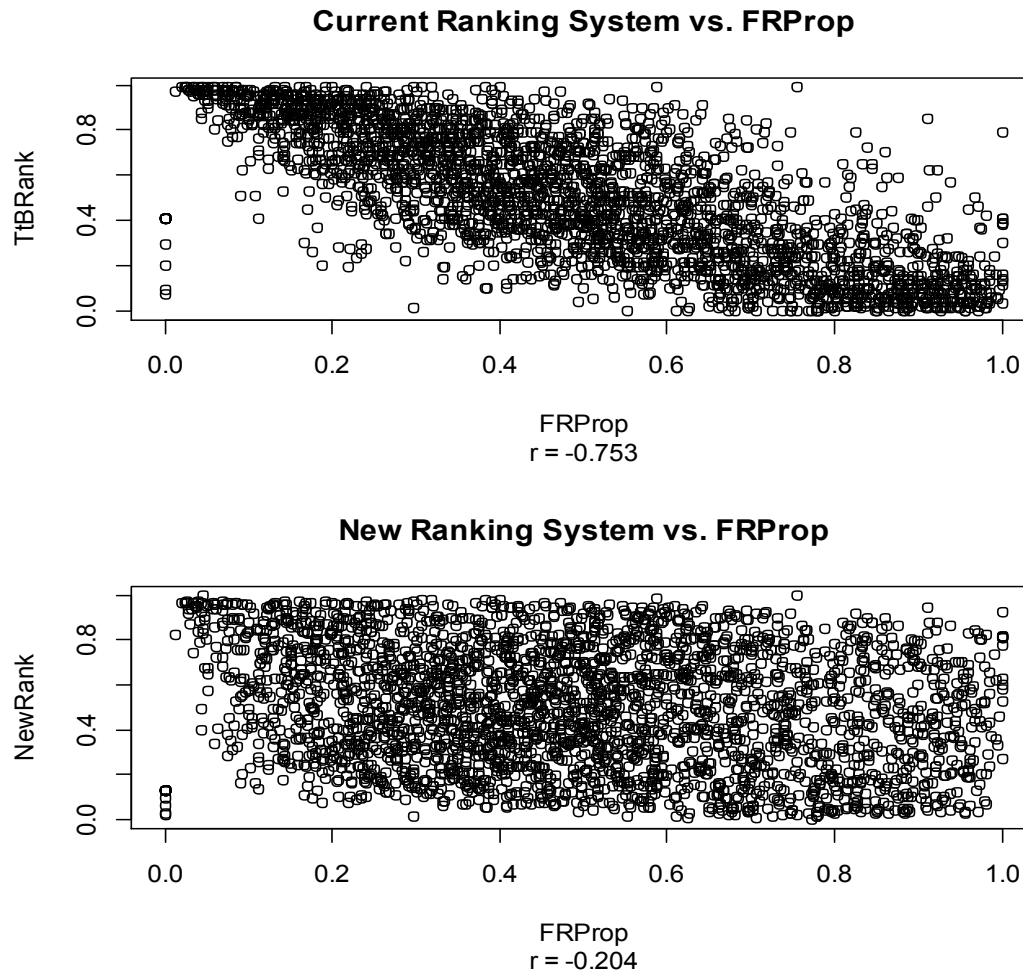
<b>School</b>	<b>FRProp</b>	<b>Zscore</b>	<b>TtBRank</b>	<b>NewRank</b>	<b>Differ</b>
Eisenhower High School	0.07	0.594478	0.75	0.28	-0.47
Ernest W. Seaholm High School	0.06	0.750476	0.8	0.34	-0.46
Novi High School	0.08	0.638934	0.77	0.31	-0.46
Bloomfield Hills Andover H.S.	0.08	0.72873	0.8	0.35	-0.45
Grosse Ile Middle School	0.09	0.662	0.77	0.32	-0.45
Dodson Elementary School	0.04	0.916866667	0.85	0.4	-0.45
Beacon Tree Elementary School	0.06	0.8808	0.84	0.4	-0.44
Wass Elementary School	0.07	0.7977	0.82	0.38	-0.44
DeWitt High School	0.11	0.439772	0.69	0.25	-0.44
Parke Lane Elementary School	0.09	0.7627	0.81	0.38	-0.43
Mohawk Elementary School	0.12	0.387166667	0.67	0.24	-0.43

Table 6

*Schools with the Most Significant Negative Difference between New Ranking System and Current Top to Bottom System using 2012-13 Data*

<b>School</b>	<b>FRProp</b>	<b>Zscore</b>	<b>TtBRan</b>	<b>NewRank</b>	<b>Diffe</b>
DeWitt Junior High School	0.09	0.5517	0.74	0.27	-0.47
Ferry Elementary School	0.09	0.54438	0.74	0.27	-0.47
Parke Lane Elementary School	0.07	0.70985	0.8	0.34	-0.46
Novi High School	0.09	0.614784	0.77	0.31	-0.46
Novi Middle School	0.1	0.355325	0.66	0.21	-0.45
East Olive Elementary School	0.1	0.5901	0.76	0.31	-0.45
Grosse Ile Middle School	0.11	0.44398	0.69	0.24	-0.45
Bloomfield Hills Andover H.S.	0.09	0.683596	0.79	0.35	-0.44
Wylie Elementary School	0.11	0.56805	0.75	0.31	-0.44
Smith Elementary School	0.06	0.85288	0.84	0.4	-0.44
East Rockford Middle School	0.13	0.42124	0.69	0.25	-0.44

Figure 8 compares the current and new (with  $\gamma = 0.25$ ) ranking systems as they relate to the proportion of free and reduced-price lunch value.



*Figure 8.* Two Scatterplots: One Using Current Ranking System (TtBRank) and a School’s Free and Reduced-Priced Lunch Population (FRProp), and the Second the New Ranking System (NewRank) and a School’s Free and Reduced-Price Lunch Population (FRProp) Using 2011-12 Data

Therefore, one see that the current ranking system exhibits a high (negative) correlation with FRProp ( $r = -0.753$ ) while the new ranking system exhibits a correlation of  $r = -0.204$ . According to Cohen (1988, 1992), this value represents a “small” to “medium” effect size. Once more, this is because the new ranking system is essentially “adjusting” for the FRProp variable.

### Example of New Rank on a Mid-size District

For example, Table 7 provides an overview of all the school buildings in a mid-sized district (6300 students) when  $\gamma = 0.25$ .

Table 7

*Hudsonville Public Schools Building by Building Comparison of TtB Rank and NewRank Using 2011-12*

School	FRProp	Zscore	TtB Rank	NewRank	Difference
Jamestown Elementary School	0.25	1.53438	0.96	0.95	-0.01
Bauer Elementary School	0.21	1.39124	0.95	0.91	-0.04
Baldwin Street Middle School	0.19	1.40704	0.95	0.90	-0.05
Riley Street Middle School	0.35	0.73684	0.81	0.76	-0.05
Forest Grove Elementary School	0.14	1.48776	0.96	0.89	-0.07
Park Elementary School	0.26	0.91714	0.86	0.75	-0.11
Alward Elementary School	0.17	1.16556	0.91	0.77	-0.14
South Elementary School	0.41	-0.15798	0.41	0.26	-0.15
Hudsonville High School	0.2	0.552642	0.74	0.41	-0.33
Georgetown Elementary School	0.13	0.84488	0.84	0.51	-0.33

This new ranking system identifies a very specific way to mitigate the factor of socio-economic status in school rankings. In fact, this NewRank model can provide control over “effect size” by selecting a predetermined correlation (Appendix A) between a school’s ranking and how a school performs when factoring in the percent of economically disadvantaged students. For example, this researcher chose a correlation value of -0.2 when comparing a building’s rank and a school building’s free and reduced-price lunch population. As Tables 3 and 4 show, by choosing this level of correlation, schools with a higher free and reduced-price lunch population have a greater propensity to rank higher than the current top to bottom system.

To find a correlation between student socio-economic status and the Michigan Department of Education’s “Top to Bottom” school ranking, this research utilized R, a Pearson correlation coefficient calculation dependent variable “Top to Bottom” Rank (TtB Rank) and

independent variable building's free and reduced-price percentage (FRProp) on the 2011-2012 and 2012-2013 school year data. Both school years' data revealed a value of 0.00000000000000022, which supported the rejection of the null hypothesis. These results detailed a strong negative correlation between a school building's "Top to Bottom" ranking and that building's free and reduced-price lunch percentage.

The second intent of the study was to develop an alternate model (New Rank) to calculate and report a school building's rank. Regression quantiles were fit and adjusted to the 2011-2012 school year data that consisted of 2, 898 schools (Figure 6). Then, in Figure 8, the state's rankings of schools are plotted against the New Rank model of schools. Findings (Tables 3, 4, 5 and 6) revealed differences in schools ranking when comparing the current Michigan Department of Education model and new ranking model.

As shown in Table 8, when comparing the results of the NewRank model developed in this study to the current Michigan Department of Education's Top to Bottom ranking system school buildings with a higher free and reduced-price lunch population tend to rank more favorable. In fact, 89.3% of school buildings in 2011 and 91.2% of school buildings in 2012 who had 50% or more of their students on free and reduced-price lunch improved their ranking under the NewRank model. These results validated the intent of the study which was to mitigate the factor of a school building's percentage of the socio-economic student population on the student achievement of that school building (Coleman et al., 1966, Brooks-Gunn & Duncan, 2001, Prince et al., 2006).

## Summary of New Rank on Michigan Schools

Table 8

*Summary Statistics of NewRank System Compared to MDE's Current Top to Bottom System*

NewRank and Top to Bottom Comparison				
Year	# of Schools Improved Rank	# of Schools Declined Rank	# of Schools No Change	Total
2011-12	1355	1476	67	2898
2012-13	1426	1394	65	2885

Schools with Free and Reduced-Price Lunch over 50%			
Year	# of Schools Improved Rank	# of Schools Declined Rank	Total
2011-12	1229	133	1362
2012-13	1320	128	1448

Schools with Free and Reduced-Price Lunch less 50%			
Year	# of Schools Improved Rank	# of Schools Declined Rank	Total
2011-12	151	1376	1527
2012-13	123	1270	1393

Schools with 25 percentage points or more Improvement or Decline			
Year	# of Schools Improved	# of Schools Declined	Total
2011-12	335	306	641
2012-13	313	281	594

Schools with 5 percentage points or more Improvement or Decline			
Year	# of Schools Improved	# of Schools Declined	Total
2011-12	334	365	699
2012-13	352	343	695

Across the state of Michigan, in 2011, 47% and in 2012, 49% of school buildings improved their ranking under the NewRank system. Additionally, 11.6% and 10.8% of school buildings in 2011 and 2012 respectively, improved their ranking by 25 or more percentage

points. One school with the greatest adjustment implementing the NewRank system was Covert Elementary according to the 2011 data (see Table 3) and 2012 data (see Table 4). Utilizing the NewRank system, Covert Elementary had the 6<sup>th</sup> most significant percentile rank increase with a 47 point increase in 2011 and 8<sup>th</sup> most significant percentile rank increase with a 45 point increase in 2012.

### **The Covert Example**

To illustrate how the MDE calculates a school building's Top to Bottom ranking, and subsequently, the effect of the NewRank system developed in this study is calculated, Covert Elementary will be highlighted. Covert Elementary School is a small (290 student) rural school in VanBuren County. Covert has a free and reduced-price lunch population of 97%. In 2012, Covert Elementary's Top to Bottom ranking was in the 27<sup>th</sup> percentile range. This was calculated in the following way.

In each of the tested subject areas (math, reading, science, and writing), an achievement z-score, an improvement z-score, and an achievement gap z-score are calculated. For the achievement score in math, the two year weighted average of 2012 and 2011 is compared to the state-wide average achievement math score. As outlined in Appendix D, in 2012-13, a normalized and capped z-score for each student based on their scales score, calculated using the following steps: 1) Ordered unique observed scores in ascending order, 2) Obtained the frequency of each unique observed score, 3) Calculated the percentile rank of each unique observed score as  $PR_j = 100 * \frac{F_{<j} + F_j/2}{N}$  where  $PR_j$  is the percentile rank of the  $j^{th}$  unique observed score,  $F_{<j}$  is the cumulative frequency of all unique observed scores with values less than the  $j^{th}$  unique observed score,  $F_j$  is the frequency of the  $j^{th}$  unique observed score, and  $N$  is

the total number of observed scores. This results in percentile ranks in the (0,100) range, non-inclusive, which allows for step d to function appropriately.

The normalized z-score of each unique observed score is calculated by:

$z_j^* = \varphi^{-1}PR_j * 100$  where  $z_j^*$  is the normalized z-score of the  $j$ th unique observed score, and  $\varphi^{-1}$  is the inverse of the stand normal cumulative frequency distribution. An adjustment is made for outliers such that for any  $z_j^*$  with a value less than -2 are replaced with -2 and any  $z_j^*$  with a value greater than 2 is replaced with 2.

An achievement index is then calculated for the most recent two years by taking the within-school average (mean) z-scores for the most recent and next to most recent years tested for each school  $j$  ( $\mu_{zj3}$  and  $\mu_{zj2}$ , respectively). The number of students for each of the associated years is weighted within-school average (mean) z-score over the most recent two years ( $N_{tj3}$  and  $N_{tj2}$  for the most recent and previous year, respectively). This is defined by:

$$\mu_{zj} = \frac{[(N_{tj3}\mu_{zj3} + N_{tj2}\mu_{zj2})]}{N_{tj3} + N_{tj2}}$$

Then the achievement index for school  $j$  is calculated as  $ach_j = \frac{\mu_{zj} - \mu_z}{\sigma_z}$ , where  $\mu_z$  indicates the statewide mean of  $\mu_{zj}$  across all comparable schools,  $\sigma_z$  indicates the statewide standard deviates of  $\mu_{zj}$  across all comparable schools, and  $ach_j$  is a z-score delineating how many standard deviates above or below the statewide mean of comparable schools, school  $j$  falls.

When applying the above calculation to student scale scores for Covert Elementary their associated achievement index score reveals: Achievement index z-scores:



Table 9

*Achievement Index by Subject for Covert Elementary*

Mathematics Ach. Index	-0.8581
Reading Ach. Index	-1.3515
Science Ach. Index	-1.4495
Writing Ach. Index	-1.5699

The performance improvement index is calculated by assessing students improvement over adjacent years of testing (for example reading and mathematics in elementary/middle schools are the only two subject areas that are tested over consecutive years, thus the improvement index is based on reading and mathematics). The below chart is used to calculate the Performance Level Change:

Previously Proficient	Performance Level Change									
	Most recent year					Previous year				
	SD	D	M	I	SI	SD	D	M	I	SI
No	$SD_{3n}$	$D_{3n}$	$M_{3n}$	$I_{3n}$	$SI_{3n}$	$SD_{2n}$	$D_{2n}$	$M_{2n}$	$I_{2n}$	$SI_{2n}$
Yes	$SD_{3y}$	$D_{3y}$	$M_{3y}$	$I_{3y}$	$SI_{3y}$	$SD_{2y}$	$D_{2y}$	$M_{2y}$	$I_{2y}$	$SI_{2y}$

Figure 9. MDE’s Performance Level Calculation

Where “SD” indicates a significant decline in performance level from one year to the next, “D” indicates a decline in performance level, “M” indicates a student is maintaining performance level, “I” indicates an improvement in performance level, and “SI” indicates a significant improvement in performance level. Thus, the formula for a school’s performance level change for each associated subject areas where appropriate is calculated by:

$$N_{PLC3} = SD_{3n} + SD_{3y} + D_{3n} + D_{3y} + M_{3n} + M_{3y} + I_{3n} + I_{3y} + SI_{3n} + SI_{3y},$$

and

$$N_{PLC2} = SD_{2n} + SD_{2y} + D_{2n} + D_{2y} + M_{2n} + M_{2y} + I_{2n} + I_{2y} + SI_{2n} + SI_{2y},$$

Figure 10. MDE’s Improvement Calculations respectively.

Note: If a school has 30 Full Academic Year students in a content area, but does not have 30 FAY students with performance level change scores, linear regression slope calculations are used.<sup>1</sup> Associated weights are given to the performance level changed with the following table:

Table 10

*MDE's Weighted Value for Performance Change*

Previously Proficient	Performance Level Change				
	SD	D	M	I	SI
No	-2	-1	0	1	2
Yes	-2	-1	1	1	2

The improvement index for school  $j$  is then calculated as  $imp_j = \frac{PLC_j - \mu_{PLC}}{\sigma_{PLC}}$  where  $PLC_j$  is the performance level change for school  $j$ ,  $\mu_{PLC}$  is the statewide mean improvement slope across all comparable schools,  $\sigma_{PLC}$  is the statewide standard deviation of improvement slopes across all comparable schools, and  $imp_j$  is a z-score indicating how far above or below the state average for comparable schools the improvement slope for school  $j$  is. This is calculated for all content areas where appropriate.

Following our example for Covert Elementary School the schools associated Improvement Change Index z-score for 2012-13 data is outlined below:

---

<sup>1</sup> Calculate the improvement index for each school ( $j$ ) as  $imp_j = \beta_j - \mu_\beta / \sigma_\beta$  where  $\mu_\beta$  is the statewide mean improvement slope across all comparable schools (elementary/middle or high schools),  $\sigma_\beta$  is the statewide standard deviation of improvement slopes across all comparable schools, and  $imp_j$  is a z-score indicating how far above or below the state average for comparable schools the improvement slope for school  $j$  is.

Table 11

*Improvement Index by Subject for Covert Elementary*

Mathematics Imp. Index	0.2472
Reading Imp. Index	-0.3248
Science Imp. Index	1.236
Writing Imp. Index	-1.3844

To calculate a school's achievement gap index we must first identify the top 30% and the bottom 30% of students' z-scores in each school and each subject area and the average z-score of the top 30% of the students' z-scores, and the average z-score of the bottom 30% of students' z-scores. By subtracting the average bottom 30% of z-scores from the average top 30% of z-scores a negative number is produced which when compared to all the schools in the state assures that schools with the highest achievement gap receive the lowest z-scores. An achievement gap index for school  $j$  is the z-score of that gap as compared to statewide distribution across all schools such that:  $gap_j = \frac{(z_j - \hat{\mu})}{\hat{\sigma}}$ .

Continuing with our example using Covert Elementary 2012-13 testing data, the school achievement gap z-score in the associated subject area is as follows:

Table 12

*Gap Index by Subject for Covert Elementary*

Mathematics Gap Index	1.5215
Reading Gap Index	2.0549
Science Gap Index	1.6047
Writing Gap Index	1.2059

To complete the weighting of the z scores, 50% is placed on achievement, 25% on improvement and 25% on the gap; it is again compared to the statewide average and associated standard deviation and a composite math z-score is assigned. Specifically, the school performance index for each content area is  $Y_j = 2ach_j + imp_j + gap_j$ . This would create a z-score ( $Y_{jz}$ ) for each content/grade index that compares all content areas. Concerning high schools, it includes a graduation index. Then the overall school performance index (spi) across all content areas (including graduation rate where applicable) yields a school performance index z-score which yields the school's overall percentile rank.

In the example of Covert, because there were only four subject areas tested, an equal weight of 25% is assigned for math, reading, science, and writing. After all the school's calculations are completed, Covert Elementary ranked in the 27<sup>th</sup> percentile. This means that 73 percent of the schools in the state ranked higher than Covert.

Table 4 identifies the school buildings with the greatest difference in the ranking when the new model:

$$\text{NewRank} = \gamma(\text{TtBRank}) + (1 - \gamma)(\text{QR-adjusted})$$

is applied to the 2012-13 data. For the purpose of this study,  $\gamma = .25$ , the current Michigan Department of Education's Top to Bottom ranking system is weighted 25% while a weight of 75% is specified for the new QR-adjusted (quantile regression model). Reflecting on Table 4 and continuing with the Covert Elementary example, when the NewRank system is applied to Covert's data, the following graphic shows the 90<sup>th</sup> and greater quantile in which Covert Elementary falls due to the school building's free and reduced-price lunch of 97%.

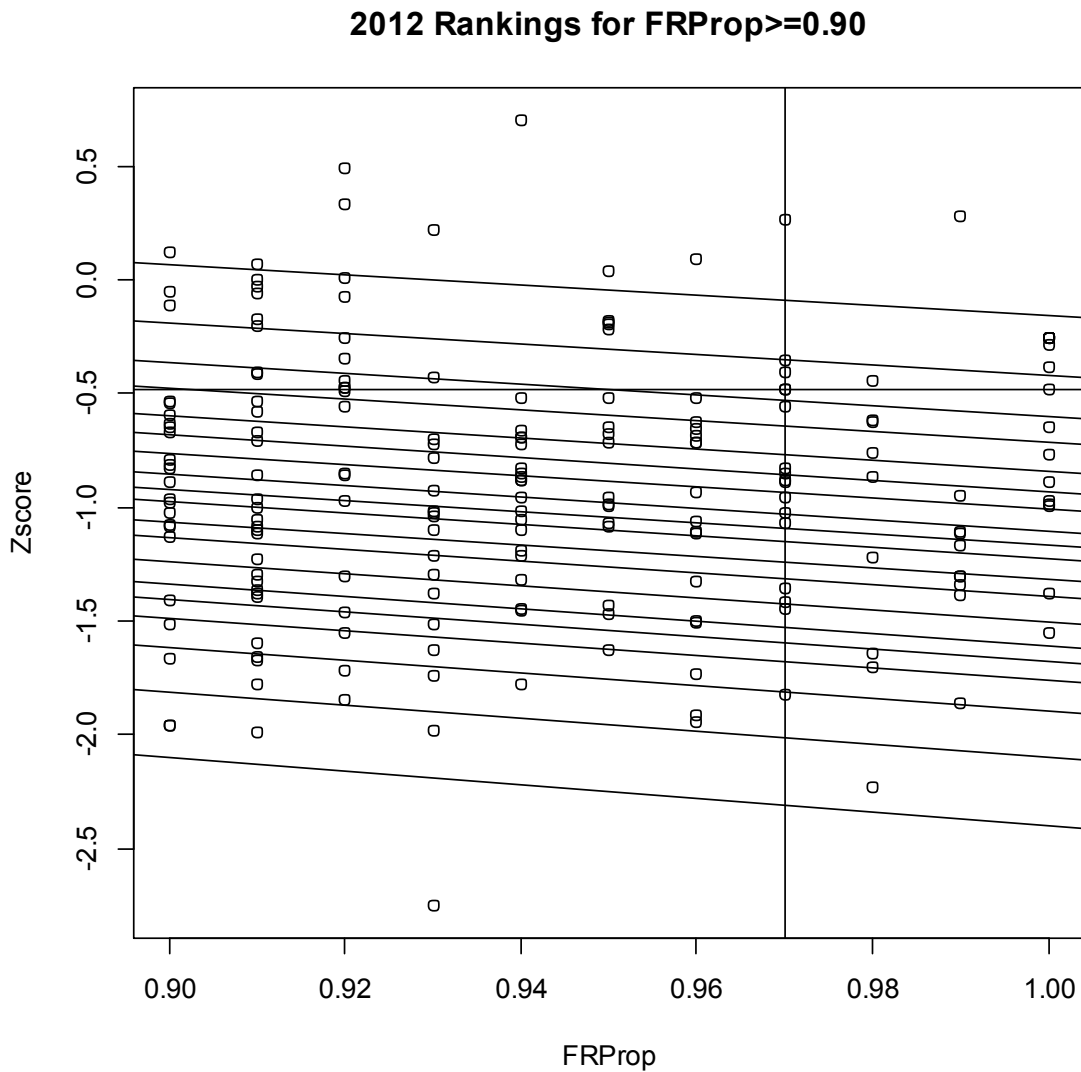


Figure 11. Zoomed in Quantile Rankings

As Figure 11 illustrates, the QR-Adjusted analysis shows Covert Elementary falling in between the 85<sup>th</sup> and 90<sup>th</sup> percentile. Through a linear interpolation between  $(z_1, \tau_1)$  and  $(z_2, \tau_2)$  evaluated at  $z(\text{C.E.})$  and adjusted rank which factors in a building's free and reduced-price lunch will yield a QR-adjusted rank. The associated formulas for the QR-adjusted rank for Covert Elementary are as follows:

$PredQuant$  for  $Zscore_{\tau=0.85 \tau=0.90} = Intercept + Slope * FRProp$

$PredQuant$  for  $Zscore_{\tau=0.85} = 1.7839 - 2.382 * 0.97$  and

$CPredQuant$  for  $Zscore_{\tau=0.90} = 1.9072 - 2.3294 * 0.97$  thus

$PredQuant$  for  $Zscore_{\tau=0.85} = -0.5267$  and

$PredQuant$  for  $Zscore_{\tau=0.90} = -0.3523$

$QR$  Adjusted<sub>CE</sub>

$$= \frac{(0.90 - 0.85)}{(PredQuant_{\tau=0.90} - PredQuant_{\tau=0.85})} * (TtBZscore_{CE} - PredQuant_{\tau=0.90}) + 0.90$$

$$QR \text{ Adjusted}_{CE} = \frac{(0.90 - 0.85)}{(-0.35226 - (-0.52662924))} * (-0.478575 - (-0.52662924)) + 0.85$$

$$QR - adjust_{CE} = \frac{0.05}{0.17436924} * 0.04805424 + 0.85$$

$$QR - adjust_{CE} = 0.863779$$

The below chart confirms the calculation:

Table 13

*Calculations for Quantile Regression 2012 Data*

	Intercept	Slope	FRProp(C.E.)	PredQuantforZscore	Zscore(C.E.)
tau= 0.00	-1.864816667	-3.918333333	0.97	-5.6656	-0.478575
tau= 0.05	0.609083548	-3.010741935	0.97	-2.311336129	-0.478575
tau= 0.10	0.775779385	-2.872523077	0.97	-2.010568	-0.478575
tau= 0.15	0.85540877	-2.750598361	0.97	-1.812671639	-0.478575
tau= 0.20	0.925085483	-2.68321648	0.97	-1.677634502	-0.478575
tau= 0.25	1.0110675	-2.6874375	0.97	-1.595746875	-0.478575
tau= 0.30	1.091305063	-2.698708861	0.97	-1.526442532	-0.478575
tau= 0.35	1.138855375	-2.64254375	0.97	-1.424412063	-0.478575
tau= 0.40	1.178220408	-2.568377551	0.97	-1.313105816	-0.478575
tau= 0.45	1.238774865	-2.556675676	0.97	-1.241200541	-0.478575
tau= 0.50	1.28205561	-2.508390244	0.97	-1.151082927	-0.478575
tau= 0.55	1.340076299	-2.509407411	0.97	-1.094048889	-0.478575
tau= 0.60	1.404333333	-2.507111111	0.97	-1.027564444	-0.478575
tau= 0.65	1.457336216	-2.465405405	0.97	-0.934107027	-0.478575
tau= 0.70	1.547031	-2.47806	0.97	-0.8566872	-0.478575
tau= 0.75	1.611828293	-2.452853659	0.97	-0.767439756	-0.478575
tau= 0.80	1.672745938	-2.38709375	0.97	-0.642735	-0.478575
tau= 0.85	1.78389912	-2.381988	0.97	-0.52662924	-0.478575
tau= 0.90	1.907237931	-2.32937931	0.97	-0.35226	-0.478575
tau= 0.95	2.09920303	-2.256060606	0.97	-0.089175758	-0.478575
tau= 1.00	5.000992857	-4.412085714	0.97	0.721269714	-0.478575

z1	tau1	z2	tau2	z(C.E.)	QRAdj	
-0.52662924	0.85	-0.35226	0.9	-0.478575	0.863779449	note: This corresponds to gamma=0

**Conclusion**

With this new QR Adjusted zscore, we can apply it to

$$\text{NewRank} = \gamma(\text{TtB Rank}) + (1 - \gamma)(\text{QR-adjusted})$$

In the study, gamma is equal to 0.25 to produce a correlation of -0.2. Gamma was calculated based on a visual inspection approach. Using the 2012 data, Table 13 is the analysis

of gamma and associated correlation of the NewRank when considering a school building's free and reduced-price lunch percentage.

Table 14

*Visual Inspection of Correlation with NewRank and Free and Reduced-Price Lunch Percentages*

<b>Gamma</b>	<b>Correlation</b>	<b>Gamma</b>	<b>Correlation</b>	<b>Gamma</b>	<b>Correlation</b>
0	0.001	0.39	-0.318	0.78	-0.617
0.01	-0.007	0.4	-0.327	0.79	-0.623
0.02	-0.014	0.41	-0.335	0.8	-0.629
0.03	-0.022	0.42	-0.344	0.81	-0.636
0.04	-0.029	0.43	-0.352	0.82	-0.642
0.05	-0.037	0.44	-0.36	0.83	-0.648
0.06	-0.045	0.45	-0.369	0.84	-0.654
0.07	-0.053	0.46	-0.377	0.85	-0.66
0.08	-0.06	0.47	-0.385	0.86	-0.665
0.09	-0.068	0.48	-0.394	0.87	-0.671
0.1	-0.076	0.49	-0.402	0.88	-0.677
0.11	-0.084	0.5	-0.41	0.89	-0.682
0.12	-0.092	0.51	-0.418	0.9	-0.688
0.13	-0.1	0.52	-0.426	0.91	-0.693
0.14	-0.108	0.53	-0.434	0.92	-0.698
0.15	-0.116	0.54	-0.442	0.93	-0.704
0.16	-0.125	0.55	-0.45	0.94	-0.709
0.17	-0.133	0.56	-0.458	0.95	-0.714
0.18	-0.141	0.57	-0.466	0.96	-0.719
0.19	-0.149	0.58	-0.474	0.97	-0.724
0.2	-0.158	0.59	-0.482	0.98	-0.729
0.21	-0.166	0.6	-0.489	0.99	-0.733
0.22	-0.174	0.61	-0.497	1	-0.738
0.23	-0.183	0.62	-0.505		
0.24	-0.191	0.63	-0.512		
<b>0.25</b>	<b>-0.2</b>	0.64	-0.52		
0.26	-0.208	0.65	-0.527		
0.27	-0.216	0.66	-0.534		
0.28	-0.225	0.67	-0.542		
0.29	-0.233	0.68	-0.549		
0.3	-0.242	0.69	-0.556		
0.31	-0.25	0.7	-0.563		
0.32	-0.259	0.71	-0.57		
0.33	-0.267	0.72	-0.577		
0.34	-0.276	0.73	-0.584		



0.35	-0.284	0.74	-0.59
0.36	-0.293	0.75	-0.597
0.37	-0.301	0.76	-0.604
0.38	-0.31	0.77	-0.61

Using the 2012 Data the visual inspection approach yields a gamma of 0.25. Thus, the NewRank formula for Covert looks like:

$$NewRank_{CE} = \gamma(TtBRank_{CE}) + (1 - \gamma)(QR - adjusted)_{CE}$$

$$NewRank_{CE} = 0.25(0.27) + (0.75)(0.863779)$$

$$NewRank_{CE} = 0.71533$$

TtBRank/100	QRAdj	Gamma	NewRank	
0.27	0.863779449	0.25	0.715334587	note: This is "NewRank" as in dissertation

Figure 12. NewRank and Associated Gamma Value Calculation

Thus, when factoring in Covert Elementary’s ranking status based on the building’s free and reduced-price lunch calculation, the NewRank for Covert would be the 72<sup>th</sup> percentile.

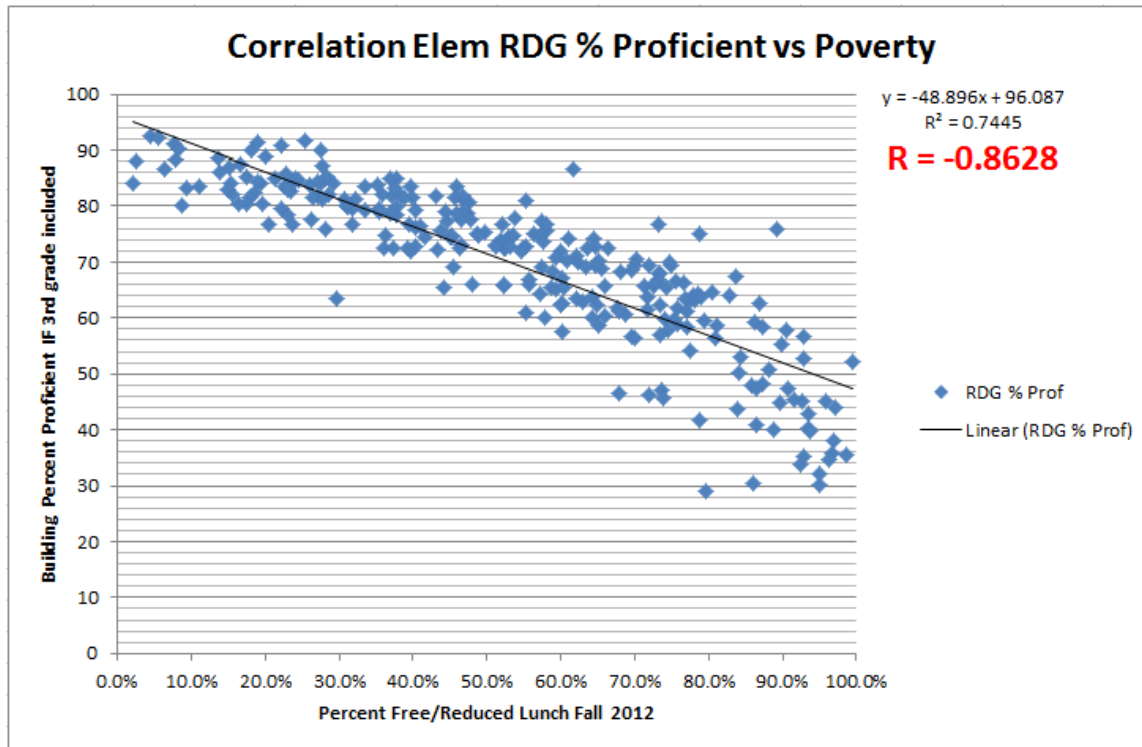
## **Chapter 5: Summary of Results and Discussion Recommendations for Further Research, Practice, and Public Policy**

The purpose of this study was to prove that a correlation existed between a school building's Top to Bottom Ranking and its percentage of students on free and reduced-price lunch. That is, to show that the Michigan Department of Education's relative ranking of school quality was as much a reflection of the relative poverty in a school building as it was school quality. This study identified that a school's Top to Bottom ranking can be predicted with a 55% (correlation of -0.74) certainty solely based on a school building's free and reduced-price lunch population. This ranking, which is closely related to a school's free and reduced-price lunch population, is what the Michigan Department of Education (MDE) uses to assign sanctions and rewards. As a policy, penalizing schools with sanctions or rewarding schools based on a ranking system that has been proven to be significantly correlated to a school's free and reduced-price lunch percentage is flawed. With such high stakes for school districts, developing a defensible system that has a "moderate" to "minimal" effect size when considering a school's socio-economic status was the second goal of the study.

To be clear, it is not the opinion of this researcher or the premise of the research that students who live in poverty are incapable of learning. This study focuses on recognizing a flaw in the current Michigan Department of Education Top to Bottom Ranking system and develops a new ranking system that addresses this issue. The new ranking system developed in this study combines and weights the current Top to Bottom ranking system, which has a high correlation to a school buildings free and reduced-price lunch population, with a quantile regression adjusted ranking system, which has no correlation to a building's free and reduced-price lunch population. This new ranking system allows for the Michigan Department of Education to set a correlation value between a school building's free and reduced-price lunch and that schools associated

ranking, which they deem to be acceptable. As outlined in this study, a correlation value of -0.2 will produce a minimal effect size and is recommended.

There is a sense of urgency with this research. On October 29, 2013, Representative Lyons introduced HB 5112, which outlined a new accountability system assigning letter grades (A through F) to all qualifying school buildings in the State of Michigan. The metrics behind identifying a school's letter grade has the potential to be even more correlated to a building's socio-economic status than the current MDE Top to Bottom list. This legislation calls for over 50% of a school building's grade to be based on achievement proficiency in reading, writing, math, science and social studies. It further calls for 25% of a building's grade to be based on all students' improvement in reading and math, with the remaining 25% of the grade based on the improvement of the bottom 30%. This proposal inherently weighs improvement twice, which is also correlated to a school building's free and reduced-price lunch. To illustrate the concern of the metric behind this proposed legislation, consider the data in Figure 13 below from 2012 in the area of reading. This graph details the qualifying schools' reading achievement scores (Top to Bottom Ranking) and the associated correlation value of -0.8628.



*Figure 13.* Reading Proficiency Scores in Relation to a Building’s Free and Reduced-Price Lunch Student Population Using 2012 Data

The above graph and associated correlation value describes the relationship of reading proficiency and free and reduced-price lunch percentage. The correlation is even stronger than the current Michigan Department of Education’s Top to Bottom rankings (see Figure 5). Essentially, this proposed legislation would intensify the significant flaw in the current ranking system creating a more unjust policy.

Other organizations such as the Mackinaw Center and Bridge Magazine recently wrote articles and conducted research on the strong link between the State of Michigan’s Top to Bottom list and a building’s socio-economic status. While the organizations do not offer specific solutions to remedy the current system, an attempt is being made to raise public awareness and initiate change. This study not only contributes to the discussion, it provides a proposed solution. Moreover, it systematically identifies school buildings (see Table 4) that are

significantly outperforming a predicted quantile median regression line. Once identified and factored into the new ranking, personnel in schools that are underperforming could investigate instructional strategies and practices employed within outperforming schools to replicate their practices.

The results of this study also raise additional questions with regards to the appropriate use of statewide school accountability and evaluation systems. An important policy question for the Michigan Department of Education might be why promote and utilize a ranking system, which is proven to have a strong correlation to poverty? If, a system is needed to identify priority schools (lowest ranked schools) to meet the NCLB federal waiver, does a system such as the NewRank system, developed in this study, accomplish this task while at the same time minimizing the effects of school's socio-economic status?

Debate will continue around the best way to identify school effectiveness. Recognizing that a school building's socio-economic status effects that building's ranking in the current Michigan Department of Education's ranking system, additional questions to be considered are:

- 1.) Does the percent of students receiving special education services affect a school's ranking?
- 2.) Does the percent of English as a second language students impact a school's ranking?
- 3.) Does the New Rank system also work for the special education population and or the second language students' population?
- 4.) Can a metric be developed to include factors other than the results of a single assessment?

In summary, while this study detailed the correlation between a school's ranking and its socio-economic status, policy makers need to consider the wide-spread implication of any school

evaluation system and the power it holds. Often, communities are built around the draw of a school system's grade or rank. Through schools of choice and relocation, families are attracted to the highest graded or ranked schools, not to mention, the reward and or sanctions tied to any ranking system. Therefore, any policy regarding a school's effectiveness needs to be comprehensive, just, and defensible. Policy makers are obligated to understand the gravity and effects new laws and regulations have on the greater community.

## References

- Ackley, M. (2010). *Race to the top phase II*. (Press release). Retrieved from <http://www.michigan.gov/mde/0,4615,7-140-5235-237683--,00.html>
- Brooks-Gunn, J., & Duncan, G. J. (1997). The effects of poverty on children. *Children and Poverty*, 7 (2), 55-71.
- Burkam, D. T., & Lee, V. E. (2002). *In equality at the starting gate: social background differences in achievement as children begin school* [Monograph]. Retrieved from [http://www.epi.org/publication/books\\_starting\\_gate/](http://www.epi.org/publication/books_starting_gate/)
- Chamberlin, J. L. (2007). Poverty, school size and charter designation as predictors of student achievement on a statewide high-stakes testing program. *AASA Journal of Scholarship and Practice*, 4 (1), 21-25.
- Chambers, J. (2013, August 21). Most Michigan schools miss mark on state's new scorecard. *The Detroit News*. Retrieved from <http://www.detroitnews.com/article/20130820/SCHOOLS/308190130>
- Cohen, J. (1988). *Statistical power analysis for the behavior sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cohen, J. (1990). Things I have learned (so far). *American Psychologist*, 45, 1304-1312.
- Coley, R. J., & Baker, B. (2013). *Poverty and education: Finding the way forward* (ETS Center for Research on Human Capital and Education). Retrieved from [http://www.ets.org/o/research/pdf\\_poverty\\_and\\_education\\_report.pdf\(PDF](http://www.ets.org/o/research/pdf_poverty_and_education_report.pdf(PDF)
- Coleman, J. S., Campbell, E. Q., Hobson, C. J., Partland, J., Mood, A. M., Weinfeld, F. D., & York, R. L. (1966), *Equality of educational opportunity*. Washington D.C.: U.S.
- Darling-Hammond, L. (2010, October/November). The Finnish Success Story. *National Education Association Today*, 2-7. Retrieved from <http://www.nea.org/home/40991.htm>

- Everett, L. E. (2006). *Segregated schools and student achievement: The relationship between same culture schools and the achievement of African-American and Latino students* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3226829)
- Furhman, S., & Lazerson, M. (2005). *The public schools*. New York: Oxford University Press, Inc.
- Glynn, T. P., & Waldeck, S. E. (2013). Penalizing diversity: How school ranking mislead the Market. *Journal of Law & Education*, 42 (3) 417-500.
- Hamilton, L. S., & Koretz, D. (2002). About tests and their use in test-based accountability systems. In L. S. Hamilton, B. M. Stecher, & S. P. Klein (Eds.), *Making Sense of Test-based Accountability in Education*. Santa Monica: RAND (MR-1554-EDU).
- Hargreaves, A., & Shirley, D. (2009). *The fourth way: The inspiring future for educational change*. Thousand Oaks, CA: Corwin Press.
- Horn, J., & Wilburn, D. (2013). *The mismeasure of education*. Charlotte, NC: Information Age Publishing, Inc.
- Jargowsky, P. A., & El Komi, M. (2009) Before or after the bell? School context and neighborhood effects on student achievement, working paper 28. (Abstract) *National Center for Analysis of Longitudinal Data in Educational Research*, 41, iv.
- Klein, A. (2011). Duncan, key senators sing off same page on ESEA renewal. [http://blogs.edweek.org/edweek/campaign-k-12/2011/01/that\\_statement\\_plus\\_speaker\\_of.html](http://blogs.edweek.org/edweek/campaign-k-12/2011/01/that_statement_plus_speaker_of.html)
- Koenker, R. (2005). *Quantile Regression*. New York, NY: Cambridge University Press.



- Kurki, A., Boyle, A., & Aladjem, D. (2005, April). *Beyond Free Lunch-Alternative Poverty Measures in educational research and program evaluation*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.
- Ladd, H. F. (2012). Presidential address: Education and poverty: Confronting the evidence. *Journal of Policy and Analysis and Management*, 31 (2) 203-227.
- Logan, J. R., Minca, E., & Adar, S. (2012). The geography of inequality: why separate means unequal in American public schools. *American Sociological Association*, 85, 287-301. doi: 10.1177/10038040711431588
- Ludwig, J., Ladd, H. F., & Duncan, G. J. (2001). Urban poverty and education outcomes. *Brookings-Wharton Papers on Urban Affairs: 2001*, July 16, 147-200. Retrieved from <http://www.brookings.edu/research/journals/Wharton-urban>
- Maylone, N. J. (2002). *The relationship of socioeconomic factors and district scores on the Michigan Educational Assessment Program tests: an analysis* (Doctoral dissertation). Available from ProQuest Dissertations and Theses. (UMI No. 3092066)
- Mc Neil, M. (2011). Editorial projects in education research issues a-z: no child left behind. *Education Week*, September 19. Retrieved from <http://www.edweek.org/ew/issues/no-child-left-behind/>
- Michigan Department of Education. (2011). *Top to bottom rankings*. Retrieved from <http://www.mdoe.state.mi.us/MDEDocuments?TTBTop>
- Michigan Legislature Website:  
<http://www.legislature.mi.gov/%28S%28q2d3aarailg5zu55tpn4lr45%29%29/mileg.aspx>

- Moore, J. A. (2011). *Poverty and student achievement: The application of Compensatory practices to education funding in the state of Florida* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3514903)
- Mosteller, F., & J. Tukey (1977). *Data Analysis and Regression: A second course in statistics*. Reading, MA: Addison-Wesley.
- Pereira, M. A. (2011). *The influence of student and school variables on student performance on the New Jersey assessment of skills and knowledge in grade 8* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No.3452491)
- Prince, D. L., Pepper, K., & Brocato, K. (2006). The importance of making the well-being of children in poverty a priority. *Early Childhood Education Journal*, 34 (1), 22-23.
- Rothstein, R., & Jacobsen, R. (2007). A test of time: Unchanged priorities for student outcomes. *The School Administrators*, 27, 1-6.
- Sirin, S. R. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. *Review of Educational Research*, 75, 417-453.
- Sorhaindo, L. R. W. (2003). *The relationship between degrees of poverty and student achievement* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3086343)
- Spalding, A. (2013). *Michigan's top to bottom ranking: a measure of school quality or student poverty?* Midland, MI: The Mackinac Center for Public Policy.
- Tiedt, S. W. (1968). *Teaching the disadvantaged child*. New York: Oxford University Press.

- Tienken, C. (2011). Structured inequality: the intersection of socioeconomic status and the standard error of measurement of state mandated high school test results. *The 2011 Yearbook of the National Council of Professors of Educational Administration*. Pennsylvania: DEStech Publications, Inc.
- Tienken, C. (2012). Poverty matters. *AASA Journal of Scholarship and Practice*, 9 (1), 3-7.
- United States Department of Education. (2010). *Delaware and Tennessee win first race to the top grants*. (Press@ed.gov, March 29, 2010). Retrieved from <http://www.ed.gov/news/press-releases/delaware-tennessee-win-first-race-top-grants>
- Urso, C. J. (2008). *Student achievement in high-poverty schools: a grounded theory on school success on achievement tests* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3301427)
- Uyeno, R., Zhang, S., & Chin-Chance, S. (2006, April). *The role of demographic factors in predicting student performance on a state reading test*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco.

## **Appendices**

## Appendix A: Correlation Derivation

Let  $z_1, z_2, x$  be  $r, v, s$

Consider  $z = \gamma z_1 + (1 - \gamma)z_2$  such that  $0 \leq \gamma \leq 1$

Choose  $\gamma$  such that  $\text{corr}(z, x) = \rho_0$

$$\text{corr}(z, x) = \frac{\text{cov}(z, x)}{\sqrt{v(z)v(x)}} = \frac{\text{cov}(\gamma z_1 + (1 - \gamma)z_2, x)}{\sqrt{v(\gamma z_1 + (1 - \gamma)z_2)v(x)}}$$

$$\text{corr}(z, x) = \frac{\gamma \text{cov}(z_1, x) + (1 - \gamma)\text{cov}(z_2, x)}{\sqrt{[\gamma^2 v(z_1) + (1 - \gamma)^2 v(z_2) + 2\gamma(1 - \gamma)\text{cov}(z_1, z_2)][v(x)]}}$$

$$\text{corr}(z, x) = \frac{\gamma \rho_{1x} \sigma_1 \sigma_x + (1 - \gamma)\rho_{2x} \sigma_2 \sigma_x}{\sqrt{[\gamma^2 \sigma_1^2 + (1 - \gamma)^2 \sigma_2^2 + 2\gamma(1 - \gamma)\rho_{12} \sigma_1 \sigma_2][\sigma_x^2]}}$$

$$\text{corr}(z, x) = \frac{\gamma \rho_{1x} \sigma_1 + (1 - \gamma)\rho_{2x} \sigma_2}{\sqrt{[\gamma^2 \sigma_1^2 + (1 - \gamma)^2 \sigma_2^2 + 2\gamma(1 - \gamma)\rho_{12} \sigma_1 \sigma_2]}} = \rho_0 \quad (\text{specified}) \quad \text{iff}$$

$$\gamma \rho_{1x} \sigma_1 + (1 - \gamma)\rho_{2x} \sigma_2 = \rho_0 \sqrt{\gamma \sigma_1^2 + (1 - \gamma)^2 \sigma_2^2 + 2\gamma(1 - \gamma)\rho_{12} \sigma_1 \sigma_2} \quad \text{iff}$$

$$(\gamma \rho_{1x} \sigma_1 + (1 - \gamma)\rho_{2x} \sigma_2)^2 = \rho_0^2 (\gamma \sigma_1^2 + (1 - \gamma)^2 \sigma_2^2 + 2\gamma(1 - \gamma)\rho_{12} \sigma_1 \sigma_2) \quad \text{iff}$$

$$\begin{aligned} & \gamma^2 \rho_{1x}^2 \sigma_1^2 + 2\gamma(1 - \gamma)\rho_{1x}\rho_{2x}\sigma_1\sigma_2 + (1 - \gamma)^2 \rho_{2x}^2 \sigma_2^2 \\ & = \gamma^2 \rho_0^2 \sigma_1^2 + (1 - \gamma)^2 \rho_0^2 \sigma_2^2 + 2\gamma(1 - \gamma)\rho_0^2 \rho_{12} \sigma_1 \sigma_2 \quad \text{iff} \end{aligned}$$

$$\gamma^2 \rho_{1x}^2 \sigma_1^2 + 2\gamma\rho_{1x}\rho_{2x}\sigma_1\sigma_2 - 2\gamma^2 \rho_{1x}\rho_{2x}\sigma_1\sigma_2 + \rho_{2x}^2 \sigma_2^2 - 2\gamma\rho_{2x}^2 \sigma_2^2 + \gamma^2 \rho_{2x}^2 \sigma_2^2 =$$

$$\gamma^2 \rho_0^2 \sigma_1^2 + \rho_0^2 \sigma_2^2 - 2\gamma\rho_0^2 \sigma_2^2 + \gamma^2 \rho_0^2 \sigma_2^2 + 2\gamma\rho_0^2 \rho_{12} \sigma_1 \sigma_2 - 2\gamma^2 \rho_0^2 \rho_{12} \sigma_1 \sigma_2 \quad \text{iff}$$

$$\gamma^2[\rho_{1x}^2\sigma_1^2 - 2\rho_{1x}\rho_{2x}\sigma_1\sigma_2 + \rho_{2x}^2\sigma_2^2 - \rho_0^2\sigma_1^2 - \rho_0^2\sigma_2^2 + 2\rho_0^2\rho_{12}\sigma_1\sigma_2] +$$

$$\gamma[2\rho_{1x}\rho_{2x}\sigma_1\sigma_2 - 2\rho_{2x}^2\sigma_2^2 + 2\rho_0^2\sigma_2^2 - 2\rho_0^2\rho_{12}\sigma_1\sigma_2] + [\rho_{2x}^2\sigma_2^2 - \rho_0^2\sigma_2^2] = 0 \quad \text{iff}$$

$$[(\rho_{1x}\sigma_1 - \rho_{2x}\sigma_2)^2 - \rho_0^2(\sigma_1^2 - 2\rho_{12}\sigma_1\sigma_2 + \sigma_2^2)]\gamma^2$$

$$+ 2[\sigma_2^2(\rho_0^2 - \rho_{2x}^2) + \sigma_1\sigma_2(\rho_{1x}\rho_{2x} - \rho_0^2\rho_{12})]\gamma + \sigma_2^2[\rho_{2x}^2 - \rho_0^2] = 0 \quad \text{iff}$$

$$a\gamma^2 + b\gamma + c = 0 \quad (\text{say})$$

notes:

$\sigma_1^2 = v(z_1)$  could be assumed to be 1 (if  $z_1$  is a z - score) or  $\frac{1}{12}$  (if  $z_1 = \Phi(z_1^*)$ )

$\sigma_2^2 = v(z_2)$  could be assumed to be 1 or  $\frac{1}{12}$  (see  $\sigma_1^2$ )

\*  $\rho_{1x} = \text{corr}(z_1, x)$  this is what we are observing!

$\rho_{2x} = \text{corr}(z_2, x)$  this should be close to 0 since  $z_2$  is adjusted for  $x$ .

\*  $\rho_{12} = \text{corr}(z_1, z_2)$  ? (probably have to be an estimate)

$\rho_0 = \text{specified by user (e.g. } -0.20 - 0.1)$

$\rho_0$	$\gamma$
-0.20	0.2509
-0.15	0.1908
-0.10	0.1294

School	FRProp	Zscore	TtBRank	NewRank
Kettering West Wing	0.754545455	2.749666667	0.99	0.99
Webster Elementary School	0.045833333	5.0543	0.99	0.99
Ottawa Area Center	0.587548638	2.24565	0.99	0.98
City Middle/High School	0.400560224	2.60943	0.99	0.98
John Ball Park Zoo School	0.383333333	2.7401	0.99	0.98
Blandford Nature Center	0.317460317	2.9772	0.99	0.98
Saginaw Arts and Sciences Academy	0.306729264	2.72548	0.99	0.98
Constantine High School	0.472422062	1.785156	0.97	0.97
Pathway School	0.38974359	2.13115	0.98	0.97
Winn Elementary School	0.371621622	2.03975	0.98	0.97
Jamestown Elementary School	0.297348485	2.5031	0.99	0.97
Handley School	0.24047619	2.582266667	0.99	0.97
Peach Plains School	0.199195171	2.279	0.99	0.97
Jeffers Elementary School	0.1925	2.425	0.99	0.97
Carpenter Year Round Elem. School	0.168141593	2.327466667	0.99	0.97
Holmes Elementary School	0.159751037	2.670266667	0.99	0.97
Angell School	0.142384106	2.784866667	0.99	0.97
Ada Elementary School	0.08490566	2.572766667	0.99	0.97
Martin Luther King Elem. School	0.068627451	2.774266667	0.99	0.97
Schroeder Elementary School	0.056092843	2.647433333	0.99	0.97
Brewster Elementary School	0.042440318	2.639033333	0.99	0.97
Goodwillie Environmental School	0.03960396	3.10325	0.99	0.97
Birmingham Covington School	0.034003091	2.6605	0.99	0.97
Musson Elementary School	0.02617801	2.837933333	0.99	0.97
Meyer Elementary School	0.53002611	1.462233333	0.94	0.96
Drummond Island Elem. School	0.452830189	1.75785	0.97	0.96
Norman Miller Elementary School	0.394736842	1.7157	0.96	0.96
Dutton Elementary School	0.338509317	1.720966667	0.96	0.96
Hill Elementary School	0.30078125	1.762666667	0.97	0.96
North Muskegon High School	0.288732394	1.999734	0.98	0.96
Park Elemementary School	0.263297872	1.7798	0.97	0.96
Mackensen Elementary School	0.262711864	1.840533333	0.97	0.96
Angling Road Elementary School	0.24933687	1.883666667	0.97	0.96
Bentheim Elementary School	0.216393443	2.1387	0.98	0.96
Marshall Elementary School	0.214975845	1.9221	0.98	0.96
Roguewood Elementary School	0.218658892	1.883633333	0.97	0.96
Forest Grove Elementary School	0.203846154	1.872166667	0.97	0.96
Meadow Brook Elementary School	0.190661479	1.821433333	0.97	0.96
Burns Park Elementary School	0.174013921	2.123966667	0.98	0.96
North Hill Elementary School	0.130841121	2.235233333	0.99	0.96
Commerce Elementary School	0.141001855	1.912233333	0.98	0.96

Uriah H. Lawton School	0.145238095	1.904566667	0.97	0.96
Scotch Elementary School	0.128987517	2.010966667	0.98	0.96
University Hills Elem. School	0.097323601	2.1248	0.98	0.96
Central Woodlands 5/6 School	0.083760684	2.28525	0.99	0.96
Independence Elementary School	0.092130518	2.0675	0.98	0.96
Long Meadow Elementary School	0.09137931	2.0858	0.98	0.96
Wealthy School	0.074492099	2.1936	0.99	0.96
West Maple Elementary School	0.080843585	2.115	0.98	0.96
Central Middle School	0.071762871	2.0803	0.98	0.96
Bloomfield Hills Middle School	0.058461538	2.159625	0.99	0.96
Derby Middle School	0.06959707	2.088175	0.98	0.96
Wines Elementary School	0.051597052	2.146366667	0.99	0.96
Way Elementary School	0.058974359	2.1226	0.98	0.96
Deerfield Elementary School	0.034188034	2.360566667	0.99	0.96
City School	0.025862069	2.4277	0.99	0.96
Burton Elementary School	0.023423423	2.3811	0.99	0.96
Highmeadow Common Campus School	0.019157088	2.512966667	0.99	0.96
Pinconning Central Elementary School	0.641723356	1.258266667	0.91	0.95
North Central Elementary School	0.608695652	1.2509	0.91	0.95
Kingsley Area Elementary School	0.546511628	1.3471	0.93	0.95
Lake Hills Elementary School	0.50625	1.333833333	0.92	0.95
Ross Park Elementary School	0.455665025	1.3711	0.93	0.95
Grandville West Elementary School	0.441860465	1.455633333	0.94	0.95
Leonard Elementary School	0.464503043	1.311533333	0.92	0.95
Mary A. White School	0.404255319	1.535566667	0.95	0.95
Eagle Crest Charter Academy	0.421787709	1.40695	0.93	0.95
Hancock Middle School	0.412935323	1.346875	0.93	0.95
Buchanan High School	0.390295359	1.350762	0.93	0.95
Star Elementary School	0.378125	1.4528	0.94	0.95
Morrish Elementary School	0.343949045	1.421966667	0.94	0.95
Cross Creek Charter Academy	0.321088435	1.521875	0.95	0.95
Glen Lake Elementary School	0.278350515	1.731666667	0.96	0.95
Grandville South Elementary School	0.253968254	1.6867	0.96	0.95
Countryside Elementary School	0.249492901	1.620066667	0.96	0.95
Bauerwood School	0.246017699	1.736633333	0.96	0.95
Spring Lake Intermediate School	0.236768802	1.7082	0.96	0.95
Kent Lake Elementary School	0.228007181	1.7048	0.96	0.95
Oakley Park Elementary School	0.166204986	1.830233333	0.97	0.95
Costello Elementary School	0.126153846	1.9329	0.98	0.95
Kettle Lake Elementary School	0.132850242	1.908	0.97	0.95
Hart Middle School	0.126222222	1.899625	0.97	0.95
Eastern Middle School	0.101036269	1.9521	0.98	0.95
Van Hoosen Middle School	0.048407643	2.110725	0.98	0.95



Amerman Elementary School	0.038461538	2.144166667	0.98	0.95
Quarton Elementary	0.037777778	2.142066667	0.98	0.95
Richard Elementary School	0.035264484	2.1338	0.98	0.95
Iris Becker Elementary School	0.911032028	0.90735	0.85	0.94
Grayling Middle School	0.640419948	1.04445	0.87	0.94
Henry Ford Early College	0.601156069	1.169	0.9	0.94
Crystal Lake Elementary School	0.61827957	1.017166667	0.87	0.94
Clara B. Bolen Elementary School	0.583524027	1.2114	0.9	0.94
Lake Ann Elementary School	0.594594595	1.0798	0.88	0.94
Bates Academy	0.569780854	1.216625	0.9	0.94
Frankfort Elementary School	0.557823129	1.1851	0.9	0.94
Clarksville School	0.507352941	1.27435	0.91	0.94
New Buffalo Middle School	0.48427673	1.231525	0.91	0.94
Johannesbur-Lewiston Elementary/Middle School	0.482972136	1.200975	0.9	0.94
Griffin Elementary School	0.422222222	1.306066667	0.92	0.94
Cass City High School	0.434673367	1.16529	0.9	0.94
Lincoln School	0.411552347	1.278466667	0.92	0.94
Marion D. Crouse Instr. Center	0.391089109	1.29355	0.92	0.94
Central Elementary School	0.389655172	1.318133333	0.92	0.94
Green Elementary School	0.290322581	1.4571	0.94	0.94
Paint Creek Elementary School	0.168297456	1.752	0.97	0.94
Northern Hills Middle School	0.123388582	1.86275	0.97	0.94
Hemmeter Elementary School	0.122186495	1.881133333	0.97	0.94
Rockford Spanish Immersion	0.06122449	2.0209	0.98	0.94
Beverly Elementary School	0.056497175	2.0166	0.98	0.94
Novi Woods Elementary School	0.038054968	2.109466667	0.98	0.94
Messmore Elementary School	0.031746032	2.101266667	0.98	0.94
Delta Kelly Elementary School	0.027777778	2.0881	0.98	0.94
Ida Middle School ***	1	0.703625	0.79	0.93
Andrews Elementary School	0.717717718	0.850633333	0.83	0.93
Glenwood Elementary	0.694050992	0.8853	0.84	0.93
E.B. Holman Elementary School	0.673913043	0.9383	0.85	0.93
Deckerville Elementary School	0.634441088	0.884466667	0.84	0.93
Ashley Elementary School	0.578947368	1.01885	0.87	0.93
Campbell Elementary School	0.56812933	0.897233333	0.85	0.93
Carpenter School	0.547619048	0.9652	0.86	0.93
Parma Elementary School	0.514218009	1.084566667	0.88	0.93
Harbor Beach Middle School	0.527607362	0.94585	0.85	0.93
Ottawa Elementary School	0.479365079	1.0904	0.88	0.93
Barkell Elementary School	0.474226804	1.0788	0.88	0.93
Vulcan Middle School	0.420833333	1.132625	0.89	0.93
Harbor Springs Middle School	0.309012876	1.3912	0.93	0.93
Willow Hill Elementary School	0.291855204	1.4097	0.94	0.93

Brown Elementary School	0.286324786	1.453466667	0.94	0.93
Kurtz Elementary School	0.269076305	1.4779	0.94	0.93
Voyager Elementary School	0.261732852	1.471766667	0.94	0.93
Houghton Central High School	0.243654822	1.543488	0.95	0.93
Spencer Road Elementary School	0.17920354	1.6492	0.96	0.93
Eberwhite School	0.144044321	1.758633333	0.97	0.93
Thornapple Elementary School	0.06779661	1.967866667	0.98	0.93
Kerby Elementary School	0.043859649	1.9895	0.98	0.93
Townline Elementary	0.825688073	0.713533333	0.79	0.92
North Godwin Elementary School	0.747706422	0.716266667	0.79	0.92
Lake City Lower Elem. School	0.705645161	0.7457	0.8	0.92
C.L.K. Elementary School	0.675524476	0.755433333	0.81	0.92
North Huron School	0.597777778	0.87034875	0.84	0.92
Madison Middle School	0.620588235	0.769675	0.81	0.92
ISD-Local Programs	0.59375	0.80535	0.82	0.92
Robert D. Brandon Elem. School	0.57704918	0.823933333	0.83	0.92
John R Rodger Elementary School	0.550724638	0.847633333	0.83	0.92
Mayfield Elementary School	0.513157895	0.9306	0.85	0.92
Springport High School	0.509375	0.939324	0.85	0.92
Renaissance High School	0.499100719	0.928868	0.85	0.92
John F. Farrell-Emmett Elementary School	0.352459016	1.263666667	0.91	0.92
Temperance Road Elementary School	0.290076336	1.361266667	0.93	0.92
Adams Elementary School	0.281795511	1.365	0.93	0.92
Riley Elementary School	0.215328467	1.555566667	0.95	0.92
Lillian G. Mason Elementary School	0.202083333	1.556	0.95	0.92
Clague Middle School	0.163636364	1.670575	0.96	0.92
Cannonsburg Elementary School	0.153110048	1.703533333	0.96	0.92
Sharon J. Hardy Elementary School	0.144300144	1.7089	0.96	0.92
Springfield Plains Elem. School	0.106571936	1.7836	0.97	0.92
Pathfinder Center	0.715447154	0.7058	0.79	0.91
Grayling Elementary School	0.680107527	0.673933333	0.78	0.91
Bedford Junior High School ***	0.625	0.7138	0.79	0.91
Carney-Nadeau School	0.602996255	0.72285	0.8	0.91
Kinloch Elementary School	0.6	0.7014	0.79	0.91
Classical Academy	0.579925651	0.74135	0.8	0.91
North Ohio Elementary School	0.562945368	0.7615	0.81	0.91
Chrysler Elementary School	0.5625	0.7518	0.81	0.91
Stephenson Middle School	0.55	0.814575	0.82	0.91
West Oakview Elementary School	0.529166667	0.86185	0.83	0.91
Nellie Reed Elementary School	0.519877676	0.863566667	0.83	0.91
Harbor Beach Elementary School	0.464	0.964733333	0.86	0.91
Yale Elementary School	0.427027027	1.008333333	0.87	0.91
Fair Haven Elementary School	0.426470588	1.035833333	0.87	0.91

Bursley School	0.403100775	1.090666667	0.89	0.91
Franklin Elementary School	0.401574803	1.0727	0.88	0.91
Sandy Knoll School	0.395415473	1.07415	0.88	0.91
Blue Star Elementary School	0.325949367	1.221666667	0.91	0.91
Lincoln School	0.239709443	1.447766667	0.94	0.91
Centennial Middle School	0.205159705	1.515	0.95	0.91
Hartland Farms Intermediate School	0.184855234	1.577	0.95	0.91
Great Oaks Elementary School	0.155925156	1.637	0.96	0.91
Clarke School	0.136465324	1.684966667	0.96	0.91
Northern Trails 5/6 School	0.121153846	1.7315	0.96	0.91
Thornton Creek Elementary School	0.02764977	1.9777	0.98	0.91
Lybrook Elementary School	0.838607595	0.5116	0.72	0.9
Southwood Elementary	0.731391586	0.540533333	0.73	0.9
Au Gres-Sims Elementary School	0.713541667	0.5694	0.74	0.9
Ludington Magnet Middle School	0.683426443	0.58715	0.75	0.9
Brethren High School	0.671428571	0.619466	0.76	0.9
AuSable Primary School	0.658469945	0.56465	0.74	0.9
West Iron County High School	0.565068493	0.720036	0.8	0.9
R.J. Steeby School	0.565022422	0.7502	0.8	0.9
Sterling Elementary School	0.563076923	0.722033333	0.8	0.9
Reeths-Puffer Intermediate Sch.	0.520064205	0.7955	0.82	0.9
Kent City Middle School	0.498168498	0.8396	0.83	0.9
Ruth Fox Elementary School	0.492581602	0.83785	0.83	0.9
Alcona Community High School	0.463576159	0.922114	0.85	0.9
Louise Peacock Elementary School	0.446428571	0.946533333	0.85	0.9
Sandy Hill School	0.362660944	1.1029	0.89	0.9
Woodland Elementary School	0.355932203	1.1143	0.89	0.9
Robert B. Havens Elem. School	0.355345912	1.108	0.89	0.9
Mill Creek Elementary School	0.340983607	1.143733333	0.89	0.9
Grandville Cummings Elementary School	0.32388664	1.200433333	0.9	0.9
Byron Center West Middle School	0.305613306	1.2535	0.91	0.9
Edison Elementary School	0.232941176	1.4259	0.94	0.9
Pine River Elementary School	0.232142857	1.4165	0.94	0.9
Sarah G. Banks Middle School	0.231470924	1.4084	0.93	0.9
Caledonia Elementary School	0.212121212	1.453433333	0.94	0.9
Gardens Elementary School	0.206477733	1.467066667	0.94	0.9
Kinawa School	0.163907285	1.6019	0.95	0.9
Hill Elementary School	0.145454545	1.617633333	0.96	0.9
Martell Elementary School	0.079787234	1.787133333	0.97	0.9
Bird Elementary School	0.046801872	1.905033333	0.97	0.9
Lowrey Middle School	0.859615385	0.474325	0.7	0.89
Hillman Elementary School	0.696113074	0.533666667	0.72	0.89
Platte River Elementary School	0.695081967	0.5265	0.72	0.89

Hillside Learning & Behavior Center	0.677966102	0.5133	0.72	0.89
Mecosta Elementary School	0.663003663	0.557033333	0.73	0.89
Marlette Elementary	0.61393597	0.612233333	0.76	0.89
Kuehn-Haven Middle School	0.612631579	0.596975	0.75	0.89
Frostick School	0.573264781	0.689766667	0.78	0.89
Cass Technical High School	0.572497661	0.67268	0.78	0.89
Birchview School	0.572368421	0.6888	0.78	0.89
Central Elementary School	0.441904762	0.9201	0.85	0.89
Ethel C. Bobcean Elem. School	0.429885057	0.9267	0.85	0.89
Lincoln Park Elementary School	0.370860927	1.058066667	0.88	0.89
Dryden Elementary School	0.374251497	1.047633333	0.87	0.89
Millside Elementary School	0.348484848	1.095433333	0.89	0.89
Hamilton Elementary School	0.321266968	1.178366667	0.9	0.89
Gaines Elementary School	0.331950207	1.1484	0.89	0.89
North Road Elementary School	0.315384615	1.173566667	0.9	0.89
Churchill Elementary School	0.265822785	1.3019	0.92	0.89
Muir Middle School	0.244732577	1.3655	0.93	0.89
Baldwin Street Middle School	0.220512821	1.415275	0.94	0.89
Kellogg Elementary School	0.216666667	1.41275	0.94	0.89
East Hills Middle School	0.144981413	1.612125	0.96	0.89
Barnard Elementary School	0.139215686	1.609066667	0.96	0.89
Stadium Drive Elementary School	0.147609148	1.602266667	0.95	0.89
Pine Ridge Elementary School	0.08912656	1.7569	0.97	0.89
Lewis Maire Elementary School	0.088495575	1.7574	0.97	0.89
Baldwin Elementary School	0.081730769	1.7762	0.97	0.89
Knapp Forest Elementary School	0.074015748	1.780566667	0.97	0.89
Lakeside School	0.046563193	1.867033333	0.97	0.89
International Academy of Saginaw	0.844765343	0.363	0.65	0.88
Whittemore-Prescott Area Middle School	0.832786885	0.363975	0.65	0.88
Countryside Academy-Elementary	0.80952381	0.36065	0.65	0.88
Pine River Middle School	0.594405594	0.60935	0.76	0.88
Norton Elementary School	0.613138686	0.568033333	0.74	0.88
St. Ignace Middle School	0.623655914	0.550925	0.73	0.88
Wyoming Park High School	0.588374852	0.609058	0.76	0.88
Benzie Central Sr. High School	0.593385214	0.594588	0.75	0.88
East Jordan Middle School	0.562248996	0.62755	0.76	0.88
Ellsworth Community School	0.513888889	0.74615	0.8	0.88
Soo Township School	0.482352941	0.7663	0.81	0.88
Central School	0.420118343	0.8976	0.85	0.88
Walker Charter Academy	0.378723404	0.997925	0.86	0.88
Holly High School	0.328688525	1.130714	0.89	0.88
Orchard Primary School	0.312312312	1.16975	0.9	0.88
Grand Traverse Academy	0.289905091	1.213855556	0.9	0.88

Sandyview Elementary School	0.245901639	1.31275	0.92	0.88
West Shore Elementary School	0.24	1.33315	0.92	0.88
Spring Lake Middle School	0.226190476	1.3577	0.93	0.88
Bennett Woods Elementary School	0.173913043	1.502566667	0.95	0.88
Grandville Grand View Elementary School	0.18336163	1.495866667	0.94	0.88
Eastover Elementary School	0.162337662	1.516033333	0.95	0.88
William A. Brummer Elementary School	0.145985401	1.580166667	0.95	0.88
Hilton Road Elementary School	0.145516074	1.566966667	0.95	0.88
Woodcrest Elementary School	0.128813559	1.610166667	0.96	0.88
Creekside Intermediate School	0.117760618	1.64585	0.96	0.88
West Hills Middle School	0.098976109	1.6926	0.96	0.88
Bemis Elementary School	0.042168675	1.843033333	0.97	0.88
Academy for Business and Technology Elementary	0.923076923	0.302033333	0.62	0.87
Creative Arts/Gifted and Talented Academy	0.91372549	0.30145	0.62	0.87
K.I. Sawyer Elementary School	0.844311377	0.3224	0.63	0.87
University High School	0.731404959	0.334596	0.64	0.87
Oakridge Upper Elementary School	0.66743649	0.4307	0.68	0.87
Fordline Elementary School	0.573717949	0.5784	0.75	0.87
Chippewa Hills High School	0.557142857	0.601012	0.76	0.87
Weiss Elementary School	0.513677812	0.6989	0.79	0.87
Johannesburg-Lewiston High School	0.517241379	0.679196	0.78	0.87
Vanguard Charter Academy	0.516960651	0.679475	0.78	0.87
New Buffalo Elementary School	0.435114504	0.847633333	0.83	0.87
New Buffalo Senior High School	0.388429752	0.954578	0.86	0.87
Oakwood Elementary School	0.327868852	1.09645	0.89	0.87
New Lothrop Elementary School	0.251386322	1.2787	0.92	0.87
O.E. Duncel Middle School	0.193195626	1.428675	0.94	0.87
Hiawatha Elementary School	0.167553191	1.498866667	0.95	0.87
Oxford Elementary School	0.151982379	1.5182	0.95	0.87
Clifford H. Smart Middle School	0.130612245	1.57975	0.95	0.87
Keith Elementary School	0.116638079	1.6166	0.96	0.87
Emmons Lake Elementary School	0.127705628	1.5805	0.95	0.87
Harlan Elementary School	0.068965517	1.752733333	0.97	0.87
Ada Vista Elementary School	0.029880478	1.853666667	0.97	0.87
Clippert Academy	0.937735849	0.1734	0.57	0.86
Godfrey-Lee Early Childhood Ctr.	0.875518672	0.22575	0.59	0.86
Meek-Milton Elementary School	0.862445415	0.22935	0.59	0.86
Justus Gage Elementary School	0.816254417	0.2547	0.6	0.86
Urbandale School	0.819148936	0.218433333	0.59	0.86
White Cloud Upper Elementary School	0.761329305	0.2847	0.61	0.86
Anderson Elementary School	0.62601626	0.47585	0.7	0.86
Hart Middle School	0.658263305	0.402075	0.67	0.86
Ferry School	0.654723127	0.399433333	0.67	0.86

Scottville Elementary School	0.643312102	0.43145	0.68	0.86
Mecosta-Osceola Education Center	0.581920904	0.54985	0.73	0.86
West Elementary School	0.513800425	0.649433333	0.77	0.86
Chesaning Middle School	0.455696203	0.78655	0.82	0.86
Wilbur Bills Elementary School	0.512345679	0.65655	0.77	0.86
Kingsley Area Middle School	0.494845361	0.689325	0.78	0.86
Highlands School	0.483296214	0.706	0.79	0.86
Bad Axe Intermediate School	0.455319149	0.772	0.81	0.86
Syring Elementary School	0.37414966	0.961166667	0.86	0.86
Arts Academy in the Woods	0.347985348	1.031542	0.87	0.86
Walters Elementary	0.307471264	1.1268	0.89	0.86
Saugatuck Middle School	0.282926829	1.16325	0.9	0.86
Tobey Elementary School	0.259052925	1.246633333	0.91	0.86
Indian Prairie Elementary School	0.255707763	1.24635	0.91	0.86
Negaunee High School	0.234375	1.296564	0.92	0.86
Midland Academy of Advanced and Creative Studies	0.212	1.354766667	0.93	0.86
Martin Luther King, Jr. Education Center Academy	0.221917808	1.325166667	0.92	0.86
Kraft Meadows Middle School	0.204453441	1.37315	0.93	0.86
Loon Lake Elementary School	0.200440529	1.3797	0.93	0.86
Indian Hill Elementary School	0.183632735	1.425133333	0.94	0.86
South Arbor Charter Academy	0.178947368	1.43625	0.94	0.86
Chestnut Hill School	0.177242888	1.4404	0.94	0.86
Holly Academy	0.151476252	1.497	0.95	0.86
Rosy Mound School	0.158808933	1.477133333	0.94	0.86
Conant Elementary School	0.069277108	1.724966667	0.96	0.86
International Academy of Flint (K-12)	0.85560166	0.150366667	0.55	0.85
East Kelloggsville School	0.817629179	0.147233333	0.55	0.85
University Preparatory Academy (PSAD) - Middle	0.788944724	0.1925	0.57	0.85
East Elementary School	0.621761658	0.43765	0.68	0.85
Fountain Elementary School	0.584382872	0.4877	0.71	0.85
Memorial Elementary School	0.496487119	0.671766667	0.78	0.85
Kalkaska High School	0.483370288	0.69185	0.79	0.85
McBain Elementary School	0.528846154	0.594166667	0.75	0.85
Borland Elementary School	0.560693642	0.530866667	0.72	0.85
Boyne Falls Public School	0.523584906	0.597366667	0.75	0.85
Mona Shores Middle School	0.414905451	0.83135	0.83	0.85
Leland Public School	0.375	0.9170925	0.85	0.85
Vera Ralya Elementary School	0.22962963	1.276033333	0.92	0.85
Alto Elementary School	0.240780911	1.2415	0.91	0.85
Howe Trainable Center and Montessori	0.207207207	1.3467	0.93	0.85
Collins Elementary School	0.121338912	1.540066667	0.95	0.85
Frankenmuth High School	0.110056926	1.581272	0.95	0.85
Workman Elementary School	0.05964467	1.723533333	0.96	0.85

Moraine Elementary School	0.046189376	1.7367	0.97	0.85
Pullman Elementary School	0.967857143	0.050533333	0.5	0.84
Covert Middle School	0.92	0.051075	0.5	0.84
Bloomington Elementary School	0.767195767	0.175733333	0.57	0.84
West Kelloggsville School	0.764011799	0.1931	0.57	0.84
Lindsay Elementary School	0.744027304	0.215733333	0.58	0.84
Vera Wilsie Elementary School	0.68814433	0.3022	0.62	0.84
Marcellus Elementary School	0.637010676	0.3801	0.66	0.84
Houghton Lake Middle School	0.703549061	0.264666667	0.6	0.84
Crossroads Charter Academy (PK-6)	0.62244898	0.406466667	0.67	0.84
Carson City Elementary School	0.63986014	0.352	0.65	0.84
Hill-McCloy High School	0.513392857	0.608078	0.76	0.84
Belle River Elementary School	0.580645161	0.473933333	0.7	0.84
Bluffton Elementary School	0.648648649	0.33945	0.64	0.84
Grayling High School	0.578583765	0.481074	0.7	0.84
Elsa Meyer Elementary School	0.564643799	0.488333333	0.71	0.84
Pathfinder Elementary School	0.551652893	0.53085	0.72	0.84
Ridgeview Elementary School	0.491694352	0.6561	0.77	0.84
Watervliet Senior High School	0.513586957	0.597036	0.75	0.84
Ralph Waldo Emerson Elem. School	0.404692082	0.824066667	0.83	0.84
Stewart Elementary School	0.32166302	1.0273	0.87	0.84
Lake Fenton Middle School	0.301762115	1.073875	0.88	0.84
Reid Elementary School	0.246428571	1.216066667	0.9	0.84
Keller Elementary	0.246105919	1.210366667	0.9	0.84
Tappan Middle School	0.232590529	1.240925	0.91	0.84
Haslett Middle School	0.198707593	1.334925	0.92	0.84
Brooklands Elementary School	0.18129771	1.378433333	0.93	0.84
Scripps Middle School	0.170180723	1.4034	0.93	0.84
Thurston Elementary School	0.114558473	1.5493	0.95	0.84
Silver Springs Elementary School	0.108786611	1.565833333	0.95	0.84
Ann Arbor Open at Mack School	0.089820359	1.609875	0.96	0.84
Lone Pine Elementary School	0.099173554	1.572	0.95	0.84
Hillside Middle School	0.04028436	1.734975	0.96	0.84
El-Hajj Malik El-Shabazz Academy	0.970588235	-0.0152	0.46	0.83
Harms Elementary School	0.960072595	-0.0386	0.45	0.83
Arenac Eastern Elementary School	0.910714286	-0.0161	0.46	0.83
West MI Academy of Environmental Science	0.740112994	0.159625	0.56	0.83
Oakley W. Best Middle School	0.719898606	0.193275	0.57	0.83
Stephenson Elementary School	0.615384615	0.3688	0.66	0.83
Lincoln Elementary School	0.587557604	0.428033333	0.68	0.83
Big Rock Elementary School	0.540849673	0.517133333	0.72	0.83
Ruth Hoppin School	0.561128527	0.466633333	0.7	0.83
Lawton High School	0.523510972	0.550144	0.73	0.83

Mendon Elementary School	0.486013986	0.6193	0.76	0.83
Boyne City High School	0.484848485	0.634048	0.76	0.83
Avoca Elementary School	0.411764706	0.804433333	0.82	0.83
Lakeland Elementary School	0.371900826	0.882866667	0.84	0.83
Hopkins Middle School	0.382978723	0.854375	0.83	0.83
Pickford High School	0.368421053	0.89392	0.84	0.83
Meadow Ridge Elementary School	0.284946237	1.104566667	0.89	0.83
Howard Elementary School	0.282122905	1.111733333	0.89	0.83
Siebert School	0.19966443	1.296666667	0.92	0.83
Cook Elementary School	0.198645598	1.31155	0.92	0.83
Schoolcraft Middle School	0.197718631	1.305375	0.92	0.83
Ruahmah J. Hutchings Elementary	0.170731707	1.367466667	0.93	0.83
Myers Elementary School	0.17037037	1.3698	0.93	0.83
Hawkins Elementary School	0.165338645	1.401166667	0.93	0.83
Lakewood Elementary School	0.165165165	1.399366667	0.93	0.83
Larson Middle School	0.129310345	1.479425	0.94	0.83
Heritage School	0.09702458	1.5701	0.95	0.83
Hamilton Elementary School	0.075609756	1.6283	0.96	0.83
Brownell Middle School	0.045383412	1.7054	0.96	0.83
Michigan School for the Deaf ***	1	-0.1414	0.41	0.82
Michigan School for the Deaf ***	1	-0.1414	0.41	0.82
Saginaw Preparatory Academy	0.981770833	-0.110275	0.42	0.82
Glerum Elementary School	0.81270903	0.0542	0.5	0.82
Mason Middle School	0.47080292	0.653325	0.77	0.82
Lincoln Elementary School	0.57312253	0.42885	0.68	0.82
Harvey-Swanson Elementary School	0.443396226	0.714266667	0.79	0.82
Oxbow Elementary School	0.463291139	0.657966667	0.77	0.82
North Elementary School	0.451851852	0.68055	0.78	0.82
Northport Public School	0.50877193	0.5575	0.73	0.82
Madison High School	0.565333333	0.438322	0.68	0.82
Woodland Elementary School	0.437125749	0.7084	0.79	0.82
Washington Elementary School	0.332618026	0.9621	0.86	0.82
Linden Elementary School	0.250574713	1.1474	0.89	0.82
Bauer Elementary School	0.19760479	1.285533333	0.92	0.82
Duncan Lake Middle School	0.204347826	1.266675	0.91	0.82
Community High School	0.096311475	1.543664	0.95	0.82
Winchester Elementary School	0.011741683	1.777166667	0.97	0.82
Douglas School	1	-0.182433333	0.39	0.81
Eastside Elementary School	1	-0.1742	0.39	0.81
Ryan Elementary School ***	1	-0.212466667	0.38	0.81
Cesar Chavez High School	0.973647712	-0.23186	0.37	0.81
Edison Elementary School	0.834123223	-0.0136	0.47	0.81
Halfman Elementary School	0.867158672	-0.0699	0.44	0.81



Leonidas School	0.839285714	-0.0356	0.45	0.81
Union High School	0.549180328	0.458166	0.7	0.81
Stout Middle School	0.707620529	0.15985	0.56	0.81
Belding High School	0.5	0.567076	0.74	0.81
Ida High School ***	0.5	0.561176	0.74	0.81
Sheridan Elementary School	0.670212766	0.2297	0.59	0.81
Discovery Elementary	0.498910675	0.561066667	0.74	0.81
Southwestern Academy	0.645933014	0.27666	0.61	0.81
Berrien Springs Middle School	0.645514223	0.272825	0.61	0.81
Washington Middle School	0.587896254	0.381975	0.66	0.81
Velma Matson Upper Elementary School	0.713114754	0.143233333	0.55	0.81
University Preparatory Science and Math (PSAD) Middle School	0.632829374	0.2894	0.62	0.81
Congress School	0.643724696	0.27195	0.61	0.81
Roscommon Elementary School	0.64229249	0.280733333	0.61	0.81
Daisy Brook Elementary School	0.547692308	0.4498	0.69	0.81
Robinson School	0.421686747	0.729366667	0.8	0.81
Cameron Elementary School	0.409214092	0.75605	0.81	0.81
James Madison Elementary School	0.669565217	0.2095	0.58	0.81
Ezra Eby Elementary School	0.394428152	0.786066667	0.82	0.81
Maple Valley Elementary School	0.610599078	0.324166667	0.63	0.81
Hancock Central High School	0.405172414	0.773152	0.81	0.81
Gates Elementary School	0.427065026	0.7078	0.79	0.81
White Cloud Junior High School	0.722222222	0.11505	0.53	0.81
East Middle School	0.383795309	0.81925	0.82	0.81
Edwardsburg Intermediate School	0.359477124	0.8826	0.84	0.81
Yale Senior High School	0.356005789	0.882638	0.84	0.81
Island City Academy	0.342995169	0.904866667	0.85	0.81
Grand Haven High School	0.29731243	1.029398	0.87	0.81
Bridgman High School	0.306060606	1.00738	0.86	0.81
Logan Elementary School	0.229651163	1.190033333	0.9	0.81
Forest Elementary School	0.117206983	1.471666667	0.94	0.81
East Grand Rapids Middle School	0.096503497	1.5206	0.95	0.81
Benton Harbor Charter School	0.975113122	-0.245975	0.36	0.8
Nims Elementary School	0.891764706	-0.1247	0.41	0.8
Raisinville School ***	0.9	-0.1709	0.4	0.8
Boynnton Montessori Program	0.895454545	-0.15595	0.4	0.8
Winans Academy Middle School	0.856164384	-0.0889	0.43	0.8
Pine Creek Elementary School	0.8252149	-0.053533333	0.45	0.8
Fairview High School	0.56043956	0.41018	0.68	0.8
Watervliet Middle School	0.578616352	0.3791	0.66	0.8
Richardson Middle School	0.692307692	0.1578	0.56	0.8
Kent City Elementary School	0.5552	0.4225	0.68	0.8
Brookwood Elementary	0.623100304	0.287733333	0.62	0.8

Laker Elementary	0.54308094	0.449133333	0.69	0.8
Owendale-Gagetown Elementary School	0.769230769	0.0376	0.49	0.8
O.J. DeJonge Middle School	0.449888641	0.6433	0.77	0.8
Michigan Technical Academy Middle School	0.836027714	-0.082466667	0.43	0.8
Alcona Elementary School	0.628647215	0.2727	0.61	0.8
Decatur High School	0.582491582	0.356668	0.65	0.8
North Holland Elementary School	0.696498054	0.152733333	0.55	0.8
Hesperia High School	0.513333333	0.499292	0.71	0.8
Francis A. Higgins Elem. School	0.421150278	0.7049	0.79	0.8
Bloomington Middle School	0.819672131	-0.058975	0.44	0.8
Fischer Elementary School	0.762557078	0.024433333	0.49	0.8
Ravenna High School	0.408934708	0.728852	0.8	0.8
Eureka Heights Elementary School	0.761904762	0.0416	0.49	0.8
Dresden Elementary School	0.416342412	0.716133333	0.79	0.8
Cole Academy	0.722543353	0.1023	0.52	0.8
Eagle Lake Elementary School	0.378640777	0.7939	0.82	0.8
Geer Park Elementary	0.708708709	0.121133333	0.53	0.8
Emma Murphy Elementary School	0.375903614	0.813866667	0.82	0.8
Central Elementary School	0.728813559	0.0808	0.51	0.8
Paul A. Schalm School	0.348453608	0.8666	0.84	0.8
Bryant Middle School	0.317503392	0.949475	0.85	0.8
Sycamore Elementary School	0.301538462	0.9855	0.86	0.8
Pattengill School	0.238095238	1.1446	0.89	0.8
Waukazoo Elementary School	0.205284553	1.224333333	0.91	0.8
Issac Monfort Elementary School	0.214864865	1.202966667	0.9	0.8
Waldon Middle School	0.182258065	1.288775	0.92	0.8
Murphy Elementary School	0.180661578	1.2745	0.92	0.8
Millennium Middle School	0.191780822	1.2717	0.91	0.8
Hartland Round Elementary School	0.179624665	1.293166667	0.92	0.8
Adams Elementary School	0.147058824	1.3776	0.93	0.8
Portage West Middle School	0.11882716	1.45435	0.94	0.8
Okemos Public Montessori-Central	0.082677165	1.546466667	0.95	0.8
Hugger Elementary School	0.048449612	1.634733333	0.96	0.8
Centreville Middle School	0.551181102	0.409725	0.68	0.79
North Central Area Junior/Senior High School	0.538461538	0.44083	0.69	0.79
Eaton Academy	0.832989691	-0.08998	0.43	0.79
Algonquin Middle School	0.47702407	0.558575	0.74	0.79
Morley Stanwood High School	0.554245283	0.402784	0.67	0.79
Lawton Middle School	0.597701149	0.309825	0.63	0.79
Fulton Elementary School	0.460526316	0.594933333	0.75	0.79
Chassell K-12 School	0.492805755	0.52565	0.72	0.79
Byron Area High School	0.408854167	0.714334	0.79	0.79
Carsonville-Port Sanilac Elementary School	0.667870036	0.164866667	0.56	0.79

Brandywine Elementary School	0.608478803	0.2788	0.61	0.79
Otter Lake Elementary School	0.617117117	0.263	0.6	0.79
Mark C. Roose Elementary School	0.719607843	0.066366667	0.51	0.79
Lakewood Elementary School	0.26044226	1.0636	0.88	0.79
St. Clair High School	0.219814241	1.177644	0.9	0.79
Schoolcraft Upper Elem. School	0.215139442	1.183233333	0.9	0.79
Alward Elementary School	0.180084746	1.261	0.91	0.79
Murray Lake Elementary	0.140311804	1.366666667	0.93	0.79
Jefferson Middle School	0.130263158	1.405225	0.93	0.79
Crestwood Elementary School	0.118834081	1.414933333	0.94	0.79
Eastern High School	0.074798619	1.547042	0.95	0.79
Pierce Elementary School	0.041322314	1.628366667	0.96	0.79
Parkview Elementary School	0.903225806	-0.244766667	0.37	0.78
Endeavor Elementary	0.451097804	0.603366667	0.76	0.78
Cass City Middle School	0.550314465	0.394725	0.67	0.78
Ruth McGregor Elementary School	0.479830149	0.535	0.73	0.78
Maple Grove Elementary School	0.468085106	0.5709	0.74	0.78
Jefferson Elementary School	0.53507014	0.4301	0.68	0.78
Gaylord Middle School	0.477894737	0.5525	0.73	0.78
Kirk Elementary School	0.588353414	0.316066667	0.63	0.78
Red Hawk Elementary	0.4625	0.57445	0.74	0.78
Bullock Creek Middle School	0.415704388	0.68835	0.78	0.78
Susick Elementary School	0.506393862	0.479	0.7	0.78
John F. Kennedy Elem. School	0.573705179	0.335733333	0.64	0.78
Mason Central School	0.493203883	0.5045	0.71	0.78
Onaway Elementary School	0.641196013	0.196033333	0.58	0.78
Colon Elementary School	0.578947368	0.323033333	0.63	0.78
Huntington Elementary School	0.407284768	0.6888	0.78	0.78
Lowrey Elementary School	0.851216023	-0.188233333	0.39	0.78
Caseville Middle School	0.655737705	0.15795	0.56	0.78
Caseville Elementary School	0.666666667	0.15095	0.55	0.78
Lake City Middle School	0.65470852	0.157275	0.56	0.78
Fairview School	0.68852459	0.111466667	0.53	0.78
Chicago Street School ***	0.8	-0.0856	0.43	0.78
Walkerville Elementary School	0.833333333	-0.1621	0.4	0.78
Warner Elementary School	0.330623306	0.868	0.84	0.78
Vanderbilt Charter Academy	0.738493724	0.022075	0.48	0.78
Steele Street Elementary School	0.324390244	0.892133333	0.84	0.78
Concord Academy-Petoskey	0.272727273	1.0118	0.87	0.78
Davison High School	0.265584416	1.034164	0.87	0.78
Lakeshore Middle School	0.236842105	1.10185	0.89	0.78
Old Mission Peninsula School	0.243902439	1.0875	0.88	0.78
Waldron Elementary and Middle School	0.179487179	1.2472	0.91	0.78

Memorial Elementary	1	-0.419433333	0.3	0.77
Morenci Area High School	0.507462687	0.462744	0.7	0.77
Siple Elementary School	0.493472585	0.4985	0.71	0.77
Appleview Elementary School	0.50092081	0.460366667	0.7	0.77
Whiteford Middle School ***	0.375	0.75135	0.81	0.77
Centreville Elementary School	0.510635808	0.4491	0.69	0.77
Elmwood Elementary School	0.474387528	0.534866667	0.72	0.77
Cherryland Middle School	0.39375	0.716275	0.79	0.77
Fulton Middle School	0.415929204	0.649825	0.77	0.77
Grandville East Elementary School	0.586956522	0.297366667	0.62	0.77
Yale Junior High School	0.40433213	0.680875	0.78	0.77
Whittemore-Prescott Elementary School	0.870175439	-0.2385	0.37	0.77
Gladwin Intermediate School	0.619266055	0.218033333	0.59	0.77
Paw Paw High School	0.356005789	0.79095	0.82	0.77
Central School	0.618037135	0.225266667	0.59	0.77
Hahn Intermediate School	0.387990762	0.71495	0.79	0.77
Vowles School	0.353773585	0.784366667	0.82	0.77
Robbie Hall Parker School	0.833740831	-0.186933333	0.39	0.77
Charles C. McGlennen School	0.650485437	0.149033333	0.55	0.77
Greenwood Elementary School	0.718309859	0.035	0.49	0.77
Roberts Elementary School	0.341772152	0.823033333	0.82	0.77
E.A. Johnson Memorial H.S.	0.694767442	0.08114	0.51	0.77
Shay Elementary School	0.318181818	0.878333333	0.84	0.77
Countryside Academy-High School	0.751219512	-0.02515	0.46	0.77
Whittemore-Prescott Area H.S.	0.807692308	-0.144028	0.41	0.77
Frank Squires Early Elem. School	0.680519481	0.09205	0.52	0.77
Lincoln School	0.702205882	0.0565	0.5	0.77
Bangor Middle School	0.758064516	-0.0558	0.45	0.77
Forest Elementary School	0.267573696	1.008933333	0.87	0.77
Hampton Elementary School	0.273291925	0.994533333	0.86	0.77
Deerfield Elementary School	0.207228916	1.150166667	0.89	0.77
Orchard View Elementary School	0.166953528	1.254933333	0.91	0.77
Woodland Elementary School	0.15270936	1.2985	0.92	0.77
Grandville Century Park Learning Center	0.126811594	1.348266667	0.93	0.77
Brown School	0.135542169	1.346333333	0.92	0.77
Isbister Elementary School	0.060240964	1.528433333	0.95	0.77
Dove Academy of Detroit	0.933962264	-0.380425	0.32	0.76
Byron Area Elementary School	0.496062992	0.4669	0.7	0.76
Gaylord Intermediate School	0.483870968	0.494466667	0.71	0.76
R.W. Kidder Middle School	0.491044776	0.477325	0.7	0.76
Gaylord High School/Voc. Bldg.	0.410159925	0.641866	0.77	0.76
North Branch Elementary School	0.522883295	0.406666667	0.67	0.76
Homer Middle School	0.54248366	0.3684	0.65	0.76

Milton C. Porter Ed. Center	0.472727273	0.5041	0.71	0.76
Logan Elementary School	0.924855491	-0.3922	0.31	0.76
Ottawa Hills High School	0.897473997	-0.342408	0.33	0.76
Coolidge School	0.885245902	-0.3138	0.34	0.76
Henry Ford Elementary School	0.884943182	-0.324466667	0.34	0.76
Lake City Upper Elem. School	0.652631579	0.127666667	0.54	0.76
Charlevoix High School	0.298102981	0.906186	0.85	0.76
Jenison Junior High School	0.319938176	0.85135	0.83	0.76
Vandenberg Elementary School	0.69382716	0.045033333	0.5	0.76
Mancelona Middle School	0.739130435	-0.02635	0.46	0.76
Rankin Elementary School	0.658402204	0.116533333	0.53	0.76
Madison Elementary School	0.699872286	0.027133333	0.49	0.76
Southeastern Elementary School	0.68641115	0.062233333	0.5	0.76
Northwest Elementary School	0.257668712	1.016266667	0.87	0.76
Elmhurst School	0.724528302	-0.01535	0.46	0.76
Hamilton High School	0.22125	1.099382	0.89	0.76
Chandler Woods Charter Academy	0.231741573	1.083825	0.88	0.76
Parkside Elementary School	0.229390681	1.0716	0.88	0.76
Valley View Elementary School	0.183121019	1.185033333	0.9	0.76
Glengary Elementary School	0.167816092	1.227366667	0.91	0.76
Chippewa Middle School	0.159322034	1.25305	0.91	0.76
Discovery Middle School	0.151515152	1.271925	0.91	0.76
Ashley Elementary School	0.128598848	1.321866667	0.92	0.76
Georgetown Elementary School	0.127240143	1.332833333	0.92	0.76
Grosse Pointe South High School	0.085373509	1.43568	0.94	0.76
Boulan Park Middle School	0.073206442	1.4841	0.94	0.76
Nottawa Community School	0.446808511	0.5509	0.73	0.75
Clarenceville High School	0.455462185	0.514808	0.72	0.75
Shepherd Middle School	0.397228637	0.666025	0.77	0.75
Mendon Middle/High School	0.464824121	0.50837	0.71	0.75
Columbia Central High School	0.360887097	0.748078	0.8	0.75
Park Elementary School	0.622596154	0.180933333	0.57	0.75
Westwood Elementary School	0.337104072	0.787966667	0.82	0.75
North Elementary School	0.460784314	0.508933333	0.71	0.75
Crossroads Charter Academy (7-12)	0.540145985	0.34356875	0.64	0.75
Baseline Middle School	0.540076336	0.337025	0.64	0.75
Rapid City Elementary School	0.537735849	0.34675	0.64	0.75
Kelloggsville High School	0.67816092	0.069728	0.51	0.75
White Lake Middle School	0.301145663	0.879975	0.84	0.75
Tomlinson Middle School	0.892944039	-0.368425	0.32	0.75
Dibble Elementary School	0.287262873	0.9027	0.85	0.75
McDonald Elementary School	0.855643045	-0.276233333	0.35	0.75
Godwin Heights Middle School	0.830985915	-0.244875	0.37	0.75

Weidman Elementary School	0.647928994	0.120566667	0.53	0.75
Montague Elementary School	0.815533981	-0.198133333	0.38	0.75
Jackson Park Intermediate	0.735614308	-0.04875	0.45	0.75
North Muskegon Elementary School	0.267734554	0.954766667	0.86	0.75
Sleight Elementary School	0.699481865	0.02045	0.48	0.75
Kelloggsville Middle School	0.787878788	-0.168025	0.4	0.75
Wattles Elementary School	0.186206897	1.1636	0.9	0.75
Belmont Elementary School	0.194842407	1.1521	0.89	0.75
Spring Lake High School	0.175308642	1.203808	0.9	0.75
Pierce Middle School	0.151103565	1.2459	0.91	0.75
Northern High School	0.145240432	1.27215	0.91	0.75
Harvest Elementary School	0.09	1.416	0.94	0.75
Kennedy Elementary School	0.093663912	1.406733333	0.93	0.75
Cedarville Middle School	0.375	0.6924	0.79	0.74
Meridian Junior High School	0.440104167	0.544075	0.73	0.74
Petoskey Middle School	0.382126348	0.674675	0.78	0.74
Galesburg-Augusta High School	0.473053892	0.468182	0.7	0.74
Deerfield Public Schools	0.369402985	0.707475	0.79	0.74
Croswell-Lexington High School	0.460055096	0.50336	0.71	0.74
East Oakview Elementary School	0.436408978	0.546733333	0.73	0.74
Cherry Creek Elementary School	0.401590457	0.627666667	0.76	0.74
Thomas A. Edison Elem. School	0.469933185	0.468033333	0.7	0.74
Washington Elementary School	0.490358127	0.421066667	0.68	0.74
Oakland International Academy - Intermediate	0.991525424	-0.6013	0.24	0.74
North Oakview Elementary School	0.34025974	0.763833333	0.81	0.74
Lessenger Elementary School	0.335766423	0.774133333	0.81	0.74
Kincheloe Elementary School	0.596214511	0.2027	0.58	0.74
West Godwin Elementary School	0.888607595	-0.380166667	0.32	0.74
Lawrence Elementary School	0.64921466	0.100533333	0.52	0.74
Linden Charter Academy	0.874670185	-0.357975	0.32	0.74
Hartford High School	0.700218818	-0.007858	0.47	0.74
Twin Beach Elementary	0.241258741	1.011533333	0.87	0.74
Bloomington Middle and High School	0.776523702	-0.147992	0.4	0.74
Fairview Elementary School	0.718954248	-0.04575	0.45	0.74
Quincy Elementary School	0.248161765	0.982633333	0.86	0.74
Mattawan Later Elem. School	0.220023283	1.069333333	0.88	0.74
Slauson Middle School	0.207084469	1.097	0.89	0.74
Westwood High School	0.213649852	1.080438	0.88	0.74
Freeland Learning Center	0.211764706	1.07745	0.88	0.74
Grand Blanc Middle School East	0.189885496	1.1261	0.89	0.74
Hartland Village Elementary School	0.169491525	1.1947	0.9	0.74
East Rockford Middle School	0.15078534	1.2322	0.91	0.74
Moorsbridge Elementary School	0.118012422	1.3248	0.92	0.74

Pewamo-Westphalia Jr. Sr. High School	0.114035088	1.33607	0.92	0.74
Ridge Wood Elementary School	0.034214619	1.527833333	0.95	0.74
Bellaire Middle/High School	0.411764706	0.57871	0.75	0.73
George A. Lacure Elem. School	0.477722772	0.4415	0.69	0.73
Lakeshore Middle School	0.373214286	0.666425	0.78	0.73
Newberry High School	0.406593407	0.593774	0.75	0.73
Delton-Kellogg High School	0.440604752	0.510638	0.72	0.73
Arno Elementary School	0.369565217	0.680833333	0.78	0.73
Courtade Elementary School	0.436997319	0.526066667	0.72	0.73
Lakeport Elementary School	0.482608696	0.43065	0.68	0.73
Seaton Elementary School	0.46953405	0.4465	0.69	0.73
Algonac Elementary School	0.613981763	0.157666667	0.56	0.73
Oriole Park Elementary School	0.556291391	0.276	0.61	0.73
Boyne City Middle School	0.6	0.19	0.57	0.73
Floyd School	0.576315789	0.2311	0.59	0.73
Annapolis High School	0.575200918	0.239486	0.59	0.73
Torrey Hill Intermediate School	0.3117506	0.814733333	0.82	0.73
Salina Intermediate 4 - 8	0.892929293	-0.4093	0.31	0.73
Morenci Area Middle School	0.549356223	0.275825	0.61	0.73
Gladwin Elementary School	0.636591479	0.1116	0.53	0.73
Dansville Middle School	0.293023256	0.8539	0.83	0.73
North Elementary School	0.612099644	0.1527	0.55	0.73
Lee High School	0.862068966	-0.348364	0.33	0.73
Perry High School	0.290766208	0.862684	0.83	0.73
Mio-AuSable High School	0.644021739	0.09753	0.52	0.73
North Muskegon Middle School	0.266968326	0.917375	0.85	0.73
Tustin Elementary School	0.642512077	0.089666667	0.52	0.73
Summit Academy North Elementary School	0.641357027	0.090333333	0.52	0.73
Shelby Middle School	0.641104294	0.095475	0.52	0.73
Barryton Elementary School	0.713780919	-0.04395	0.45	0.73
Crescent Academy	0.808411215	-0.2584	0.36	0.73
Arthur Hill High School	0.794290512	-0.226026	0.37	0.73
Hemlock High School	0.210412148	1.070354	0.88	0.73
H.H. Dow High School	0.149820789	1.219196	0.9	0.73
Charlevoix Middle School	0.405172414	0.57925	0.75	0.72
P.D. Graham Elementary School	0.412573674	0.571633333	0.74	0.72
Calumet High School	0.469230769	0.441776	0.69	0.72
Ganiard School	0.340966921	0.728433333	0.8	0.72
Brimley Jr./Sr. High	0.408695652	0.5736	0.74	0.72
Pine River Elementary School	0.316363636	0.790533333	0.82	0.72
Blossomland Learning Center	0.361809045	0.67195	0.78	0.72
Ubyly Community Elementary School	0.52014652	0.332775	0.64	0.72
Latson Road Elementary School	0.417061611	0.5582	0.73	0.72

McGregor Elementary School	0.325481799	0.7516	0.81	0.72
Mackinaw City K-12 School	0.35828877	0.681	0.78	0.72
Cesar Chavez Middle School	0.972927242	-0.60215	0.24	0.72
Newaygo High School	0.524150268	0.312236	0.63	0.72
Springport Middle School	0.580645161	0.194875	0.58	0.72
Doyle Knight School	0.603092784	0.154266667	0.56	0.72
Bean Elementary School	0.328165375	0.750366667	0.8	0.72
Houghton Middle School	0.293729373	0.847325	0.83	0.72
R.B. Boyce Elementary School	0.532258065	0.3016	0.62	0.72
Briarwood Elementary School	0.520547945	0.321866667	0.63	0.72
Bert Goens Learning Center	0.58778626	0.17405	0.57	0.72
Shelters Elementary School	0.598984772	0.1616	0.56	0.72
Capac Elementary School	0.527777778	0.303133333	0.62	0.72
McGrath Elementary School	0.545918367	0.2657	0.6	0.72
Palms Elementary School	0.259515571	0.922333333	0.85	0.72
Lawton Elementary School	0.631818182	0.087866667	0.52	0.72
Jessie Rouse School	0.916299559	-0.5072	0.27	0.72
White Pigeon Jr/Sr High School	0.651869159	0.06043	0.5	0.72
Oak Valley Middle School	0.241032999	0.976425	0.86	0.72
Hally Magnet Middle School	0.685483871	-0.0055	0.47	0.72
University Preparatory Academy (PSAD) - Elementary	0.778666667	-0.202233333	0.38	0.72
Traverse Heights Elem. School	0.835616438	-0.338	0.33	0.72
Bendle High School	0.729032258	-0.103624	0.42	0.72
Sayre Elementary School	0.19109462	1.085066667	0.88	0.72
Mattawan Early Elem. School	0.174734357	1.14015	0.89	0.72
West Middle School	0.120092379	1.2747	0.92	0.72
Smith Middle School	0.121546961	1.258	0.91	0.72
Meads Mill Middle School	0.060606061	1.424925	0.94	0.72
John Monteith Elementary School	0.068222621	1.4047	0.93	0.72
Challenger Elementary School	0.386503067	0.5986	0.76	0.71
Dundee Community High School ***	0.428571429	0.514666	0.72	0.71
Walled Lake Elementary School	0.354609929	0.670566667	0.78	0.71
Superior Central School	0.431216931	0.495435	0.71	0.71
Salk Elementary School	0.350936968	0.6857	0.78	0.71
Lakeview School	0.327666151	0.739066667	0.8	0.71
North Branch Middle School	0.519280206	0.310325	0.63	0.71
Unionville-Sebewaing Middle School	0.525345622	0.289075	0.62	0.71
Croswell-Lexington Middle School	0.524962179	0.286625	0.62	0.71
Pinewood School	0.283854167	0.850966667	0.83	0.71
Mark Twain Elementary School	0.568831169	0.205133333	0.58	0.71
Reuther Middle School	0.260273973	0.897775	0.85	0.71
Amberly Elementary School	0.270220588	0.883433333	0.84	0.71
Shiawassee RESD - Student Learning Center - West	0.610169492	0.1282	0.54	0.71



Camden-Frontier Elem. School	0.596610169	0.144475	0.55	0.71
Vestaburg Community Middle School	0.6015625	0.132125	0.54	0.71
T.R. Davis Elementary School	0.646706587	0.0547	0.5	0.71
Weston Elementary School	0.611969112	0.12165	0.53	0.71
Washington Elementary School	0.893709328	-0.485466667	0.28	0.71
Thorne Elementary School	0.858064516	-0.412733333	0.31	0.71
Lewiston Elementary School	0.670886076	-0.010233333	0.47	0.71
Montabella Junior/Senior High	0.681265207	-0.01438	0.46	0.71
University Preparatory Academy (PSAD)-High School	0.805293006	-0.293184	0.35	0.71
Lee Middle School	0.895890411	-0.497825	0.27	0.71
Pasteur Elementary School	0.832844575	-0.3554	0.32	0.71
Blair Moody Elementary School	0.809210526	-0.3	0.34	0.71
Monroe Road Elementary School	0.186084142	1.0791	0.88	0.71
Rochester High School	0.18245614	1.088848	0.88	0.71
Rockford High School	0.1632	1.144438	0.89	0.71
Woodland Meadows Elementary School	0.115124153	1.2726	0.91	0.71
Sunfield Elementary School	0.440789474	0.4717	0.7	0.7
Onsted Elementary	0.370481928	0.6127	0.76	0.7
Marcellus High School	0.449781659	0.438346	0.69	0.7
Maple Valley Jr/Sr High School	0.414355628	0.51137	0.72	0.7
Merrill Elementary School	0.447761194	0.441566667	0.69	0.7
Olivet High School	0.322067594	0.738392	0.8	0.7
Sandusky High School	0.412280702	0.531954	0.72	0.7
Eureka School	0.34375	0.6742	0.78	0.7
White Pines Middle School	0.411167513	0.5331	0.72	0.7
Forest Park School	0.490605428	0.35324	0.65	0.7
Pinewood Middle School	0.47879617	0.378625	0.66	0.7
AGBU Alex-Marie Manoogian School	0.477922078	0.37209	0.66	0.7
KRESA West Campus	0.5	0.33145	0.64	0.7
Joseph C. Sterling Elem. School ***	0.5	0.3359	0.64	0.7
Ring Lardner Middle School	0.465073529	0.40155	0.67	0.7
Flickinger Elementary School	0.305154639	0.765733333	0.81	0.7
Mid-Michigan Leadership Academy	0.947598253	-0.6191	0.24	0.7
Gwinn High School	0.511056511	0.307434	0.62	0.7
Bennett Elementary School	0.944329897	-0.609033333	0.24	0.7
Wixom Elementary School	0.259965338	0.880033333	0.84	0.7
Heavenrich School	0.95112782	-0.6314	0.23	0.7
Coit Arts Academy	0.922222222	-0.563233333	0.25	0.7
Lakes Elementary School	0.223282443	0.970766667	0.86	0.7
Custer Elementary School ***	0.666666667	-0.0036	0.47	0.7
HEART Academy	0.870967742	-0.465712	0.29	0.7
Woodside Elementary School	0.835526316	-0.3803	0.32	0.7
Columbiaville Elementary School	0.60371517	0.1072	0.52	0.7

Addams Elementary	0.215827338	1.002566667	0.86	0.7
Upton Middle School	0.201807229	1.01515	0.87	0.7
Mason County Eastern Elem. Sch.	0.737556561	-0.1613	0.4	0.7
Mancelona Elementary School	0.767676768	-0.226133333	0.37	0.7
Hartland Lakes Elementary School	0.144954128	1.162533333	0.9	0.7
Chelsea High School	0.114416476	1.237364	0.91	0.7
Bentley Elementary School	0.113553114	1.237533333	0.91	0.7
Gladstone Area Middle School	0.374647887	0.5881	0.75	0.69
Blackbird Elementary School	0.351758794	0.6472	0.77	0.69
Unionville-Sebewaing Elem. School	0.492211838	0.339533333	0.64	0.69
Sunset Lake Elementary School	0.343544858	0.664533333	0.77	0.69
Cherry Creek Elementary School	0.296969697	0.76925	0.81	0.69
Oakland Academy	0.296943231	0.7655	0.81	0.69
Bangor West Central School	0.478915663	0.366466667	0.65	0.69
Howard Community School	0.501655629	0.317833333	0.63	0.69
Meachum Junior High School	0.512886598	0.28855	0.62	0.69
Rosewood School	0.272527473	0.828966667	0.83	0.69
Cherokee Elementary School	0.29245283	0.775566667	0.81	0.69
Escanaba Middle School	0.496350365	0.316866667	0.63	0.69
Covert Elementary School	0.95970696	-0.685266667	0.22	0.69
Hamilton Middle School	0.262895175	0.847575	0.83	0.69
Macatawa Bay Middle School	0.567423231	0.163825	0.56	0.69
Michigan Technical Academy Elementary	0.931596091	-0.619066667	0.24	0.69
Voyageur Academy	0.928977273	-0.613033333	0.24	0.69
Carter Elementary School	0.62007874	0.063633333	0.51	0.69
Doherty Elementary School	0.218	0.959966667	0.86	0.69
Raupp School	0.901840491	-0.5338	0.26	0.69
Twin Rivers Elementary School	0.632231405	0.044433333	0.49	0.69
Sanborn School	0.608888889	0.0811	0.51	0.69
Academy of The Americas	0.848265896	-0.432175	0.3	0.69
Keppen School	0.798342541	-0.300366667	0.34	0.69
St. Joseph High School	0.190871369	1.043734	0.87	0.69
River Oaks Elementary School	0.711764706	-0.116666667	0.41	0.69
Creekside Elementary School	0.151329243	1.132266667	0.89	0.69
Northwood Elementary School	0.151187905	1.137166667	0.89	0.69
Edmonson Elementary School	0.372483221	0.581633333	0.75	0.68
Natalie Kreeger Elementary School	0.368181818	0.587966667	0.75	0.68
Rodgers Elementary School	0.447105788	0.418566667	0.68	0.68
Flat Rock Community High School	0.421416235	0.477092	0.7	0.68
West Senior High	0.341354225	0.64349	0.77	0.68
Lake Fenton High School	0.305243446	0.727512	0.8	0.68
Sault Area Middle School	0.496563574	0.3107	0.63	0.68
Roosevelt Elementary School	0.459940653	0.380966667	0.66	0.68

Mt. Pleasant Senior High School	0.288409704	0.781904	0.81	0.68
Buchanan School	0.979166667	-0.737266667	0.2	0.68
Byron Center High School	0.247524752	0.869842	0.84	0.68
Global Preparatory Academy	0.847457627	-0.44225	0.3	0.68
Palmer School	0.904109589	-0.566833333	0.25	0.68
Red Arrow Elementary School	0.888544892	-0.5308	0.26	0.68
Emerson Elementary School	0.899845917	-0.548533333	0.25	0.68
South Bendle Elementary School	0.848484848	-0.4498	0.29	0.68
Lakeview Elementary School	0.738095238	-0.20835	0.38	0.68
Godwin Heights Senior High School	0.678688525	-0.075638	0.43	0.68
East Olive Elementary School	0.141891892	1.12595	0.89	0.68
Scott Elementary School	0.119205298	1.1869	0.9	0.68
Grosse Ile High School	0.067946824	1.324174	0.92	0.68
Leonard Elementary School	0.051111111	1.3552	0.93	0.68
West Middle School	0.360169492	0.58055	0.75	0.67
Black Elementary School	0.343434343	0.6323	0.76	0.67
Keewahdin Elementary School	0.296470588	0.7324	0.8	0.67
Lincoln Elementary School	0.329411765	0.661166667	0.77	0.67
Whitmore Lake Middle School	0.43125	0.435325	0.68	0.67
Bark River-Harris Jr/Sr High School	0.419243986	0.44905	0.69	0.67
Angell Elementary School	0.280871671	0.772866667	0.81	0.67
Lee Elementary School	0.324942792	0.6655	0.77	0.67
Robert L. Nickels Intermediate School	0.278118609	0.7829	0.81	0.67
Brooklyn Elementary School	0.482014388	0.308433333	0.63	0.67
Grant Elementary School	0.253164557	0.844666667	0.83	0.67
Grand Blanc Community High School	0.241248097	0.87841	0.84	0.67
Sheridan School	0.503496503	0.270466667	0.61	0.67
Oakman Elementary School	0.935251799	-0.654066667	0.23	0.67
St. Charles Elementary School	0.501084599	0.282233333	0.61	0.67
Capac Middle School	0.520249221	0.2243	0.59	0.67
Allen Elementary School	0.241534989	0.8657	0.83	0.67
Monroe Middle School ***	0.909090909	-0.608975	0.24	0.67
William C. Abney Academy	0.917894737	-0.628766667	0.23	0.67
Summit Academy	0.574418605	0.11125	0.53	0.67
Stevens T. Mason Elementary School	0.209459459	0.945333333	0.85	0.67
Orville C. Krause Early Elementary School	0.196850394	0.9716	0.86	0.67
Buckley Community Schools	0.628078818	0.006	0.48	0.67
Woodworth Middle School	0.831697055	-0.4316	0.3	0.67
Bertha Robinson School	0.622710623	0.006633333	0.48	0.67
Atitwood School	0.748091603	-0.244633333	0.37	0.67
Great Oaks Academy	0.803094233	-0.369325	0.32	0.67
Eastwood School	0.699863574	-0.144533333	0.41	0.67
Country Oaks Elementary School	0.174814815	1.0423	0.87	0.67

Top to Bottom Ranking 100

Innocademy	0.174496644	1.03035	0.87	0.67
Lighthouse Elementary School	0.162962963	1.052566667	0.88	0.67
Eastside Elementary School	0.64021164	-0.0233	0.46	0.67
Clarence Randall Elem. School	0.651515152	-0.055333333	0.45	0.67
Francois Maconce Elem. School	0.765517241	-0.2979	0.35	0.67
Kaiser Elementary School	0.75399361	-0.257333333	0.36	0.67
South Walnut Elementary School	0.774774775	-0.304966667	0.34	0.67
Rochester Adams High School	0.046885466	1.35997	0.93	0.67
John Allen School	0.309090909	0.698266667	0.79	0.66
Shepherd High School	0.365714286	0.5587	0.74	0.66
Jackman Road Elementary School ***	0.387096774	0.513333333	0.72	0.66
Davison Middle School	0.363313609	0.561375	0.74	0.66
Central Elementary School	0.34025974	0.615733333	0.76	0.66
Lakewood Middle School	0.427104723	0.410125	0.68	0.66
Sault Area High School	0.399769585	0.474678	0.7	0.66
North Aurelius Elementary School	0.260545906	0.802866667	0.82	0.66
Athens High School	0.473309609	0.317798	0.63	0.66
East Leonard School	0.984496124	-0.8021	0.18	0.66
Eastern Elementary School	0.231707317	0.869933333	0.84	0.66
Vassar Senior High School	0.481798715	0.302078	0.62	0.66
Cesar Chavez Academy Elementary	0.96043956	-0.74945	0.2	0.66
Ida Elementary School	0.23046875	0.8831	0.84	0.66
Galesburg-Augusta Middle School	0.501355014	0.248425	0.6	0.66
South Maple Elementary School	0.49787234	0.26575	0.6	0.66
Richfield Public School Academy	0.878164557	-0.53935	0.26	0.66
Gompers Elementary School	0.863829787	-0.510925	0.27	0.66
Michener Elementary School	0.834415584	-0.4653	0.29	0.66
Orion Oaks Elementary School	0.14548495	1.091266667	0.89	0.66
Hesperia Middle School	0.646706587	-0.053175	0.45	0.66
Walton Charter Academy	0.816431322	-0.433875	0.3	0.66
Foreign Language Immersion	0.619909502	-0.00165	0.47	0.66
Fremont School	0.671186441	-0.105033333	0.42	0.66
Black River Public School	0.145218418	1.08737	0.88	0.66
East	0.759615385	-0.310733333	0.34	0.66
Indian Lake Elementary School	0.324858757	0.6398	0.77	0.65
Rogers City High School	0.402941176	0.4604675	0.7	0.65
Lakewood High School	0.345588235	0.579954	0.75	0.65
Almont Elementary School	0.285714286	0.7196	0.8	0.65
Wattles Park Elementary School	0.352941176	0.569433333	0.74	0.65
Washington Woods Middle School	0.318584071	0.65505	0.77	0.65
Beal City High School	0.283667622	0.72551	0.8	0.65
Hopkins High School	0.282186949	0.740544	0.8	0.65
Dorr School	0.383817427	0.503866667	0.71	0.65

Top to Bottom Ranking 101

Saugatuck High School	0.324786325	0.633968	0.76	0.65
Napoleon Middle School	0.41260745	0.431725	0.68	0.65
Owosso High School	0.45631068	0.34794	0.64	0.65
Bedford Senior High School ***	0.466666667	0.32206	0.63	0.65
Crossroads Middle School	0.454382826	0.339125	0.64	0.65
GrandPort Elementary Academy	0.954225352	-0.750566667	0.2	0.65
Greenville Middle School	0.531818182	0.17685	0.57	0.65
T.S. Nurnberger Middle School	0.50877193	0.223375	0.59	0.65
Hudsonville High School	0.207725322	0.908216	0.85	0.65
Webber School	0.20754717	0.908933333	0.85	0.65
Glen Garner Elementary School	0.532879819	0.1701	0.56	0.65
Chikaming Elementary School	0.588709677	0.0503	0.5	0.65
Gull Lake High School	0.165808445	1.013084	0.87	0.65
Dublin Elementary	0.164728682	1.015166667	0.87	0.65
Unis Middle School	0.859375	-0.5386	0.26	0.65
Mason County Central M.S.	0.585227273	0.057325	0.5	0.65
Lincoln School	0.596091205	0.026433333	0.49	0.65
Manor Elementary School ***	0.8	-0.408666667	0.31	0.65
Philip Latendresse School	0.615384615	-0.009266667	0.47	0.65
Sylvester Elementary School	0.635235732	-0.048766667	0.45	0.65
Adrian Middle School 5/6 Building	0.623608018	-0.0307	0.46	0.65
South Lyon High School	0.155394525	1.045472	0.87	0.65
Luther Elementary School	0.678571429	-0.1397	0.41	0.65
Mars Elementary School	0.618925831	-0.0193	0.46	0.65
James Foote School	0.755102041	-0.3071	0.34	0.65
New Era Elementary School	0.731958763	-0.26555	0.36	0.65
Atlanta Community Schools	0.72875817	-0.25864	0.36	0.65
Alanson Public School	0.682926829	-0.15325	0.4	0.65
Novi Meadows School	0.11227702	1.15315	0.9	0.65
Mill Creek Middle School	0.082616179	1.2336	0.91	0.65
Ferry Elementary School	0.050561798	1.3126	0.92	0.65
Vicksburg Middle School	0.329824561	0.6015	0.76	0.64
L'Anse Creuse Middle School - East	0.396866841	0.456125	0.7	0.64
Hollywood Elementary School	0.326241135	0.614833333	0.76	0.64
Explorer Elementary	0.425963489	0.389233333	0.67	0.64
Dicken Elementary School	0.253369272	0.792966667	0.82	0.64
Ovid-Elsie High School	0.309688581	0.660254	0.77	0.64
Memphis High School	0.35483871	0.552444	0.73	0.64
Kingsley Area High School	0.421052632	0.398648	0.67	0.64
Grandville Middle School	0.272527473	0.7456	0.8	0.64
Ovid-Elsie Middle School	0.420454545	0.3968	0.67	0.64
Onsted Middle School	0.303896104	0.663025	0.77	0.64
Lakeshore Elementary School	0.4393531	0.355533333	0.65	0.64

Top to Bottom Ranking 102

Starr Elementary School	0.487571702	0.2434	0.6	0.64
Brimley Elementary School	0.509157509	0.209	0.58	0.64
Lake Linden-Hubbell Elem. School	0.519083969	0.192	0.57	0.64
Vestaburg Community High School	0.506329114	0.213604	0.58	0.64
Harbor Lights Middle School	0.517460317	0.185225	0.57	0.64
South Lyon East High School	0.182119205	0.967588	0.86	0.64
George D. Gilbert Elem. School	0.534013605	0.148366667	0.55	0.64
Riverside Elementary School	0.575	0.071966667	0.51	0.64
Peck Community Elem. School	0.563265306	0.087766667	0.52	0.64
Clarkston Elementary School	0.162983425	1.0116	0.87	0.64
Lorenz C. List School	0.184986595	0.9512	0.85	0.64
Holland High School	0.547770701	0.11457	0.53	0.64
Edgerton Upper Elementary School	0.567226891	0.073	0.51	0.64
Surline Middle School	0.6	0.003575	0.48	0.64
Eugene M. Nikkari Elementary	0.604562738	0.001066667	0.47	0.64
Palo Community School	0.705128205	-0.2143	0.38	0.64
Spain Elementary School	0.79602649	-0.420825	0.3	0.64
Chippewa Hills Intermediate School	0.668621701	-0.143375	0.41	0.64
Angus Elementary School	0.664414414	-0.121233333	0.41	0.64
Forest Park Elementary School	0.675213675	-0.150733333	0.4	0.64
Bryant School	0.73015873	-0.2677	0.35	0.64
Saline Middle School	0.076292043	1.22185	0.91	0.64
Theo V. Eddy Elementary School	0.335714286	0.579233333	0.75	0.63
Concord Academy:Boyne	0.287958115	0.69315	0.79	0.63
Woodhaven High School	0.319488818	0.620296	0.76	0.63
Havel Elementary School	0.340329835	0.565766667	0.74	0.63
Tecumseh Acres Elementary School	0.271523179	0.7285	0.8	0.63
New Bedford Academy	0.293333333	0.68135	0.78	0.63
Thornapple Kellogg High School	0.254945055	0.767688	0.81	0.63
North Pointe Elementary School	0.414330218	0.3905	0.67	0.63
Belle Ann Elementary School	0.265993266	0.736233333	0.8	0.63
Clinton High School	0.238095238	0.806404	0.82	0.63
Freeland Elementary School	0.213627993	0.871933333	0.84	0.63
Stark Elementary School	0.452941176	0.3157	0.63	0.63
Oakview Middle School	0.24691358	0.782475	0.81	0.63
Bad Axe Junior High School	0.461538462	0.295833333	0.62	0.63
Northeast Middle School	0.210062893	0.88515	0.84	0.63
Sashabaw Middle School	0.195437262	0.907133333	0.85	0.63
Maybury Elementary School	0.957191781	-0.807633333	0.18	0.63
Michigan Technical Academy	0.916666667	-0.72675	0.21	0.63
Central Elementary School	0.515957447	0.1662	0.56	0.63
Westwood Elementary School	0.535416667	0.139433333	0.54	0.63
Pellston Middle/High School	0.544198895	0.12183	0.53	0.63

Top to Bottom Ranking 103

Campbell Elementary School	0.555	0.0982	0.52	0.63
Crestwood High School	0.52991453	0.136622	0.54	0.63
Miller Elementary School	0.160356347	0.999066667	0.86	0.63
Ferndale High School	0.570691434	0.062174	0.5	0.63
Oehrli Elementary School	0.558743169	0.083566667	0.51	0.63
Foster School	0.566666667	0.061533333	0.5	0.63
Holmes Middle School	0.131127451	1.072475	0.88	0.63
Mancelona High School	0.620253165	-0.045594	0.45	0.63
Republic-Michigamme School	0.619047619	-0.0455	0.45	0.63
Garfield Elementary School	0.651658768	-0.113633333	0.42	0.63
Beacon Elementary School	0.764900662	-0.37655	0.32	0.63
Riverside Middle School	0.616487455	-0.044275	0.45	0.63
Alba School	0.672413793	-0.15875	0.4	0.63
Voyageur Consortium High School	0.808510638	-0.48454	0.28	0.63
Ryan Elementary School	0.693693694	-0.212466667	0.38	0.63
Pine Trails Elementary School	0.647619048	-0.110233333	0.42	0.63
Blair Elementary School	0.794117647	-0.450133333	0.29	0.63
Brown City Elementary School	0.622789784	-0.060266667	0.44	0.63
Kempton Elementary School	0.67877095	-0.178033333	0.39	0.63
Kingston Elementary School	0.701219512	-0.235533333	0.37	0.63
Monroe High School ***	0.733333333	-0.299618	0.34	0.63
Dexter High School	0.094650206	1.162636	0.9	0.63
Lincoln Elementary School	0.687258687	-0.198433333	0.38	0.63
Gladiola Elementary School	0.708888889	-0.247266667	0.36	0.63
Bingham Farms Elementary School	0.089783282	1.172266667	0.9	0.63
Central High School	0.072261072	1.230844	0.91	0.63
Farmington Elementary School	1	-0.924	0.16	0.62
Highland Middle School	0.290672451	0.6687	0.78	0.62
Chapman Elementary School	0.277657267	0.692833333	0.79	0.62
Burton Elementary School	0.992574257	-0.917266667	0.16	0.62
Springview Elementary	0.272040302	0.71345	0.79	0.62
Lapeer East Senior High School	0.348880597	0.534576	0.72	0.62
Houghton Elementary School	0.416666667	0.370333333	0.66	0.62
Schoolcraft Elementary School	0.358974359	0.509066667	0.71	0.62
South Elementary School	0.415841584	0.3851	0.66	0.62
East Leroy Elementary School	0.435294118	0.3396	0.64	0.62
Silver Lake Elementary School	0.435251799	0.3408	0.64	0.62
Joseph C. Sterling Elem. School	0.434782609	0.3359	0.64	0.62
Tawas Area High School	0.43339254	0.341806	0.64	0.62
Coleman Junion/Senior High School	0.476309227	0.25157	0.6	0.62
Francis Reh PSA	0.954423592	-0.8155	0.18	0.62
Potter School	0.93111639	-0.7695	0.2	0.62
Norway Elementary School	0.461016949	0.278733333	0.61	0.62

Top to Bottom Ranking 104

Scarlett Middle School	0.502617801	0.182775	0.57	0.62
Village Oaks Elementary School	0.169527897	0.9567	0.86	0.62
Switzer Elementary School	0.146959459	1.021666667	0.87	0.62
Mattawan High School	0.139414802	1.045072	0.87	0.62
Brighton High School	0.113346418	1.106202	0.89	0.62
North Shore Elementary	0.569364162	0.037866667	0.49	0.62
Hornung Elementary School	0.120781528	1.081033333	0.88	0.62
East Jordan Elementary School	0.586723769	0.000733333	0.47	0.62
Central Academy	0.836190476	-0.559825	0.25	0.62
Randels Elementary School	0.651119403	-0.132366667	0.41	0.62
Forest Area Middle School	0.627586207	-0.090925	0.43	0.62
Sam Adams Elementary School	0.717948718	-0.296466667	0.35	0.62
Watersmeet Township School	0.625	-0.08275	0.43	0.62
McMillan Elementary School	0.658914729	-0.159433333	0.4	0.62
Melvindale High School	0.658241758	-0.150102	0.4	0.62
Saline High School	0.07867036	1.186406	0.9	0.62
Anchor Bay Middle School South	0.318918919	0.5911	0.75	0.61
Stockbridge High School	0.384462151	0.44061	0.69	0.61
Plymouth Elementary School	0.314711359	0.598033333	0.75	0.61
Verellen Elementary School	0.3375	0.54335	0.73	0.61
Oakland International Academy-Middle/High	0.985765125	-0.921475	0.16	0.61
A.C. Edgerton Elementary School	0.392771084	0.414966667	0.68	0.61
Cedar Springs High School	0.391393443	0.425002	0.68	0.61
Davisburg Elementary School	0.321243523	0.572533333	0.74	0.61
Hulsing Elementary School	0.217630854	0.8256	0.83	0.61
Rogers Elementary School	0.282973621	0.664433333	0.77	0.61
Sherwood Elementary School	0.449064449	0.290166667	0.62	0.61
Blesch Intermediate School	0.48	0.228033333	0.59	0.61
Mary McGuire School	0.46179402	0.26625	0.6	0.61
Central Montcalm High School	0.505415162	0.15487	0.56	0.61
Southwest Community Campus School	0.946099291	-0.83945	0.17	0.61
Pioneer High School	0.167802832	0.950574	0.85	0.61
Canton High School	0.155994222	0.981384	0.86	0.61
Joseph K. Lumsden Bahweting Anishnabe Academy	0.547826087	0.073125	0.51	0.61
Houghton Lake High School	0.574229692	0.015745	0.48	0.61
Westview Elementary School	0.766055046	-0.417733333	0.31	0.61
Concord Elementary School	0.569105691	0.0232	0.48	0.61
Vista Charter Academy	0.83127572	-0.5624	0.25	0.61
McCullough Elementary School	0.795555556	-0.488066667	0.28	0.61
Pinehurst Elementary School	0.829181495	-0.5528	0.25	0.61
Lincoln Community School	0.780645161	-0.45465	0.29	0.61
Mound Park Elementary School	0.791208791	-0.483733333	0.28	0.61
Julian O. Strong Middle School	0.731974922	-0.330275	0.33	0.61



Top to Bottom Ranking 105

Dowagiac Middle School	0.697026022	-0.257775	0.36	0.61
Meadow Brook Elementary School	0.090909091	1.1474	0.89	0.61
Morley Elementary School	0.706666667	-0.282066667	0.35	0.61
Hillcrest Elementary School	0.656626506	-0.17215	0.39	0.61
Richland Elementary School	0.2625	0.695	0.79	0.6
Auburn Elementary School	0.364150943	0.459433333	0.7	0.6
Brandon Fletcher Intermediate School	0.350515464	0.492	0.71	0.6
Lathers Early Childhood and Kindergarten Center	1	-1.0008	0.14	0.6
Reed City High School	0.393939394	0.399756	0.67	0.6
Page Elementary School	0.324942792	0.550333333	0.73	0.6
Ojibwa Elementary School	0.243553009	0.747866667	0.8	0.6
Erving Elementary School	0.410989011	0.364166667	0.65	0.6
Cooper Elementary School	0.213483146	0.821866667	0.82	0.6
Marysville High School	0.201690821	0.854502	0.83	0.6
Clemente, Roberto Academy	0.965346535	-0.920166667	0.16	0.6
Northeastern Elementary School	0.436893204	0.300866667	0.62	0.6
Frank E. Weiss Elem. School	0.446022727	0.282866667	0.61	0.6
Atwood Elementary School	0.18061089	0.895733333	0.84	0.6
Emerson School	0.91875	-0.79545	0.19	0.6
Academy of Southfield	0.926509186	-0.811466667	0.18	0.6
Brown City High School	0.514942529	0.13754	0.54	0.6
Pine River High School	0.513317191	0.125802	0.54	0.6
Robert Trombly Elementary School	0.147601476	0.987266667	0.86	0.6
Detroit Community Schools-Elementary	0.899328859	-0.750175	0.2	0.6
Haslett High School	0.145355191	0.992832	0.86	0.6
Herbison Woods Elementary School	0.104627767	1.09655	0.89	0.6
Orchard View High School	0.573726542	-0.004902	0.47	0.6
Merritt Elementary School	0.584569733	-0.02275	0.46	0.6
Wilson Community School	0.58041958	-0.0139	0.46	0.6
Max Paun School	0.77388535	-0.4568	0.29	0.6
Gladys Dillon Elementary School	0.771929825	-0.4522	0.29	0.6
Holden Elementary School	0.68907563	-0.262666667	0.36	0.6
Allen Park High School	0.270204082	0.667078	0.78	0.59
Cramer Junior High School	0.337028825	0.509325	0.72	0.59
Gearing Elementary School	0.301886792	0.584033333	0.75	0.59
Morton Elementary School	0.310457516	0.572366667	0.74	0.59
Luther C. Klager Elem. School	0.262806236	0.689966667	0.78	0.59
Spring Mills Elementary School	0.227272727	0.767733333	0.81	0.59
Thomas M. Ryan Intermediate School	0.238473768	0.7471	0.8	0.59
Central Elementary School	0.340527578	0.504966667	0.71	0.59
Portage Northern High School	0.210526316	0.813282	0.82	0.59
Chormann Elem School	0.401273885	0.362733333	0.65	0.59
Dearborn High School	0.411290323	0.341786	0.64	0.59

Top to Bottom Ranking 106

Buchanan Middle School	0.472361809	0.211633333	0.58	0.59
Williamston High School	0.152979066	0.95121	0.86	0.59
Riley Upper Elementary School	0.152258065	0.95355	0.86	0.59
Pine Street Elementary	0.448275862	0.2644	0.6	0.59
Elva Lynch Elementary School	0.509803922	0.1276	0.54	0.59
Ballard Elementary School	0.537149817	0.068666667	0.51	0.59
Hudson Middle School	0.534246575	0.07215	0.51	0.59
Richard J. Duncan Elementary	0.111896349	1.054133333	0.88	0.59
Tonda Elementary School	0.105809129	1.075766667	0.88	0.59
Cheboygan Middle School	0.591623037	-0.05345	0.45	0.59
Harrington Elementary School	0.80495356	-0.5432	0.26	0.59
Bowen Elementary	0.758122744	-0.431466667	0.3	0.59
Bentley Senior High School	0.607058824	-0.084112	0.43	0.59
Hillman Community Jr/Sr High School	0.594262295	-0.06296	0.44	0.59
Hilbert Middle School	0.682539683	-0.255125	0.36	0.59
Benzie Central Middle School	0.643678161	-0.1841	0.39	0.59
Gordon Elementary School	0.289156627	0.612233333	0.76	0.58
St. Clair Middle School	0.274350649	0.635925	0.77	0.58
Farrand Elementary School	0.305623472	0.5662	0.74	0.58
Tomek-Eastern Elem. School	0.327345309	0.525366667	0.72	0.58
Williams School	1	-1.0367	0.13	0.58
Gallimore Elementary School	0.222222222	0.7681	0.81	0.58
West MI Academy of Arts and Academics	0.266490765	0.66585	0.77	0.58
Clare Middle School	0.391203704	0.378125	0.66	0.58
Jonesville High School	0.396373057	0.35393	0.65	0.58
Kenowa Hills Middle School	0.460526316	0.223925	0.59	0.58
Jackson Arts and Technology PSA	0.961538462	-0.9364	0.15	0.58
Clear Lake Elementary School	0.174311927	0.882466667	0.84	0.58
Lean Elementary School	0.463220676	0.208566667	0.58	0.58
Wayland Union Middle School	0.451690821	0.241875	0.59	0.58
Baraga Area High School	0.479245283	0.17033	0.56	0.58
West Ward Elementary School	0.488817891	0.1482	0.55	0.58
Delton-Kellogg Middle School	0.50896861	0.115275	0.53	0.58
Besser Elementary School	0.53008596	0.064766667	0.51	0.58
Colon High School	0.517110266	0.09988	0.52	0.58
Mayville High School	0.544802867	0.026202	0.49	0.58
Novi Middle School	0.09922179	1.078475	0.88	0.58
Vandercook Lake High School	0.555090656	0.00366	0.48	0.58
Pentwater Public School	0.540636042	0.037633333	0.49	0.58
Mt. Hope School	0.848056537	-0.6584	0.22	0.58
Kalkaska Middle School	0.608562691	-0.115225	0.42	0.58
Turner-Howson Elementary School	0.766423358	-0.4753	0.28	0.58
Evergreen Elementary	0.348958333	0.455	0.7	0.57

Top to Bottom Ranking 107

Royal Oak Middle School	0.300089047	0.570375	0.74	0.57
Huron High School	0.228813559	0.741518	0.8	0.57
Andersonville Elementary School	0.30848329	0.556733333	0.73	0.57
Leslie High School	0.352808989	0.444786	0.69	0.57
Allendale Middle School	0.306889353	0.5492	0.73	0.57
Alamo Elementary School	0.3046875	0.5539	0.73	0.57
Comstock Park High School	0.327493261	0.500174	0.71	0.57
Emerson Middle School	0.338461538	0.4829	0.7	0.57
State Road Elementary School	0.212581345	0.7691	0.81	0.57
Wilcox Elementary School	0.314705882	0.526433333	0.72	0.57
Marquette Senior High School	0.182358771	0.852416	0.83	0.57
Cedarville Elementary School	0.440677966	0.24765	0.6	0.57
Colonel Donald McMonagle Elementary School	0.953002611	-0.9347	0.15	0.57
Cesar E. Chavez Elementary	0.964285714	-0.971333333	0.14	0.57
North Elementary School	0.426630435	0.2814	0.61	0.57
MacArthur K-8 University Academy	0.437392796	0.24455	0.6	0.57
Hampton Elementary School	0.460076046	0.1967	0.58	0.57
Greyhound Intermediate School	0.444633731	0.231533333	0.59	0.57
Lincoln Heights Elem. School	0.466386555	0.181733333	0.57	0.57
C.L. Phelps School	0.485815603	0.150425	0.55	0.57
William Ford Elementary School	0.893719807	-0.798733333	0.19	0.57
West Middle School	0.099415205	1.0643	0.88	0.57
North Park Montessori Academy	0.520958084	0.07455	0.51	0.57
Lincoln Middle School	0.863013699	-0.729475	0.21	0.57
Shawnee Elementary School	0.121559633	0.998733333	0.86	0.57
Stoney Creek Elementary	0.517055655	0.06995	0.51	0.57
Peck Jr./Sr. High School	0.548262548	0.01728	0.48	0.57
Lewton School	0.829090909	-0.647033333	0.23	0.57
Knapp Charter Academy	0.543126685	0.02265	0.48	0.57
Union City Middle School	0.577142857	-0.05565	0.45	0.57
Bernice McDowell Elem. School	0.825842697	-0.629	0.23	0.57
University Preparatory Academy (PSAD) Elementary	0.798525799	-0.5776	0.25	0.57
Meadowlawn Elementary	0.682432432	-0.295933333	0.35	0.57
Holland Heights	0.760638298	-0.480633333	0.28	0.57
Valleywood Middle School	0.69214876	-0.312625	0.34	0.57
Chicago Street School	0.589189189	-0.0856	0.43	0.57
Breton Downs School	0.051886792	1.178966667	0.9	0.57
Nataki Talibah Schoolhouse of Detroit	0.632286996	-0.17345	0.39	0.57
Edwardsburg High School	0.286231884	0.590416	0.75	0.56
Seymour Elementary School	0.285185185	0.591566667	0.75	0.56
Whiteford Middle School	0.215053763	0.75135	0.81	0.56
Hunter Elementary School	0.233918129	0.707066667	0.79	0.56
The Dearborn Academy	0.986027944	-1.04395	0.13	0.56

Top to Bottom Ranking 108

Mattawan Middle School	0.205636743	0.778775	0.81	0.56
Rose Pioneer Elementary School	0.363636364	0.4084	0.67	0.56
Quincy High School ***	0.375	0.376964	0.66	0.56
Williamston Middle School	0.188679245	0.82	0.82	0.56
Dickinson East Elementary School	0.947882736	-0.949266667	0.15	0.56
Orchard Hills Elementary School	0.160756501	0.886833333	0.84	0.56
Steele Middle School	0.946808511	-0.95215	0.15	0.56
Gros Cap School	0.416666667	0.2861	0.61	0.56
Marquette School	0.928358209	-0.890033333	0.16	0.56
Floyd Ebeling Elementary School	0.139158576	0.9477	0.85	0.56
Hope Middle School	0.469107551	0.169	0.56	0.56
Troy High School	0.11372549	1.00836	0.87	0.56
Parkview Elementary School	0.095854922	1.053866667	0.88	0.56
Ottawa Elementary School	0.521582734	0.046266667	0.5	0.56
Academy of Waterford	0.863636364	-0.7489	0.2	0.56
Pine Avenue Elementary School	0.559659091	-0.031766667	0.46	0.56
Washington School	0.524663677	0.03965	0.49	0.56
Dye Elementary School	0.746203905	-0.456033333	0.29	0.56
Sandburg Elementary School	0.766666667	-0.5016	0.27	0.56
Mio-AuSable Elementary School	0.708633094	-0.3765	0.32	0.56
Chesterfield Elementary School	0.616666667	-0.165633333	0.4	0.56
Sturgis Middle School	0.616595136	-0.158925	0.4	0.56
Riverside Elementary School	0.625806452	-0.1819	0.39	0.56
Mason County Central Upper Elementary	0.625	-0.1773	0.39	0.56
Montabella Elementary	0.74717833	-0.474033333	0.28	0.56
Fort Gratiot Middle School	0.295281583	0.5423	0.73	0.55
Winchell Elementary School	0.340563991	0.4433	0.69	0.55
Portage Central Middle School	0.24929972	0.664075	0.77	0.55
Lakeville Elementary School	0.390804598	0.331566667	0.64	0.55
Carpenter School	0.389502762	0.332966667	0.64	0.55
Northview High School	0.374674761	0.362272	0.65	0.55
Loving Elementary School	0.9527897	-0.9652	0.14	0.55
Myers Elementary School	0.929503916	-0.916266667	0.16	0.55
Longacre Elementary School	0.124378109	0.954233333	0.86	0.55
Blissfield Elementary	0.454855196	0.181966667	0.57	0.55
Anderson Elementary School	0.441975309	0.2075	0.58	0.55
Parchment High School	0.418181818	0.263984	0.6	0.55
Richards Middle School	0.45125	0.185675	0.57	0.55
Sequoyah Elementary School	0.112590799	0.987933333	0.86	0.55
Maples Elementary School	0.862244898	-0.754266667	0.2	0.55
Hoover Elementary School	0.092843327	1.0456	0.87	0.55
Bronson Jr/Sr High School	0.537340619	0.00816	0.48	0.55
Wakefield-Marenisco School	0.514492754	0.05005	0.5	0.55

Top to Bottom Ranking 109

West Ottawa High School Campus	0.490549451	0.106396	0.52	0.55
South Lake Middle School	0.532894737	0.0159	0.48	0.55
Keidan Special Education School	0.852071006	-0.733933333	0.2	0.55
Custer Elementary School	0.543516874	-0.0036	0.47	0.55
Martin G. Atkins Elementary School	0.839572193	-0.7056	0.21	0.55
Carsonville-Port Sanilac H.S.	0.519685039	0.03793	0.49	0.55
Bessie B. Baker School	0.537275064	-0.00025	0.47	0.55
MacDonald Elementary School	0.557788945	-0.0472	0.45	0.55
Brethren Middle School	0.725925926	-0.4283	0.3	0.55
Pinconning Middle School	0.565749235	-0.0613	0.44	0.55
Robert M. Larson Elementary School	0.736543909	-0.45505	0.29	0.55
Hoover School	0.733606557	-0.45545	0.29	0.55
Stanwood Elementary School	0.651685393	-0.2568	0.36	0.55
Pardee School	0.636627907	-0.2261	0.37	0.55
Gilkey Elementary School	0.262886598	0.603433333	0.76	0.54
Breckenridge High School	0.307017544	0.510044	0.72	0.54
Linden High School	0.245791246	0.646836	0.77	0.54
Power Upper Elementary School	0.278772379	0.573533333	0.74	0.54
Bath Middle School	0.334951456	0.44705	0.69	0.54
Schoolcraft Early Elem. School	0.186147186	0.7975	0.82	0.54
Central Middle School	0.32295271	0.471925	0.7	0.54
L'Anse Creuse Middle School - North	0.276773296	0.5718	0.74	0.54
Memphis Elementary School	0.364864865	0.377733333	0.66	0.54
Bedford Junior High School	0.216041397	0.7138	0.79	0.54
Meridian High School	0.350364964	0.397562	0.67	0.54
Schoolcraft High School	0.155080214	0.874064	0.84	0.54
Woodland Elementary School	0.371389271	0.3646	0.65	0.54
Daniel Axford Elementary School	0.153132251	0.8735	0.84	0.54
Pennfield Senior High School	0.36849711	0.364196	0.65	0.54
Okemos High School	0.149318019	0.886976	0.84	0.54
H.T. Smith Elementary School	0.388148148	0.32735	0.63	0.54
Durant Tuuri Mott School	0.923250564	-0.925766667	0.16	0.54
Central High School	0.920673077	-0.923846	0.16	0.54
A.D. Johnston Jr/Sr High School	0.438297872	0.203482	0.58	0.54
Bailey Lake Elementary School	0.117757009	0.960733333	0.86	0.54
Fruitport High School	0.437029064	0.212528	0.58	0.54
Caro High School	0.431472081	0.217712	0.58	0.54
Gateway Elementary School	0.476780186	0.122733333	0.54	0.54
Beaverton High School	0.464052288	0.14018	0.55	0.54
North Sashabaw Elementary School	0.482352941	0.112666667	0.53	0.54
Meridian Elementary School	0.089238845	1.0429	0.87	0.54
Schofield Elementary School	0.875661376	-0.806666667	0.18	0.54
Ogemaw Heights High School	0.483596598	0.10537	0.52	0.54

Top to Bottom Ranking 110

Kolb Elementary School	0.512014787	0.0352	0.49	0.54
Sheridan Road School	0.815642458	-0.661333333	0.22	0.54
Grandview Elementary School	0.5625	-0.062733333	0.44	0.54
Hiller Elementary School	0.800492611	-0.626766667	0.23	0.54
C.K. Schickler Elementary School	0.742547425	-0.484766667	0.28	0.54
Holland Elementary School	0.658227848	-0.289366667	0.35	0.54
Kinyon Elementary School	0.669064748	-0.316033333	0.34	0.54
Roscommon Middle School	0.599552573	-0.154775	0.4	0.54
Stambaugh Elementary School	0.712707182	-0.4232	0.3	0.54
Bear Lake Elementary School	0.587064677	-0.1162	0.41	0.54
Onaway Middle School	0.677966102	-0.335475	0.33	0.54
St. Helen Elementary School	1	-1.14195	0.11	0.53
Dekeyser Elementary School	0.218309859	0.6994	0.79	0.53
Glencairn School	0.23853211	0.6415	0.77	0.53
St. Charles Community High School	0.340540541	0.410258	0.68	0.53
Edison Environmental Science Academy	0.978609626	-1.088933333	0.12	0.53
Lakeshore High School	0.213829787	0.713222	0.79	0.53
Whiteford Elementary School	0.181184669	0.783466667	0.81	0.53
Richard C. Hedke Elem. School	0.351102941	0.383433333	0.66	0.53
Long Lake Elementary School	0.466431095	0.1253	0.54	0.53
Woodcreek Magnet School	0.848888889	-0.763933333	0.2	0.53
Shelby High School	0.477855478	0.107348	0.52	0.53
Marlette Jr./Sr. High School	0.518315018	0.01321	0.48	0.53
Farwell Middle School	0.702222222	-0.4055	0.31	0.53
Woodland Elementary School	0.790540541	-0.6203	0.23	0.53
Dawson Elementary School	0.539393939	-0.037366667	0.45	0.53
Mason County Eastern Junior High/High School	0.673387097	-0.3476975	0.33	0.53
Patterson Elementary School	0.566160521	-0.095833333	0.42	0.53
Oak Ridge Elementary School	0.239277652	0.6348	0.77	0.52
Andrew G. Schmidt Middle School	0.303030303	0.48435	0.71	0.52
Martin Luther King Leadership Academy	0.974358974	-1.09845	0.12	0.52
Ida Middle School	0.209174312	0.703625	0.79	0.52
Jackman Road Elementary School	0.287109375	0.513333333	0.72	0.52
Zeeland West High School	0.252387449	0.592988	0.75	0.52
Douglas Road Elementary School	0.171428571	0.792866667	0.82	0.52
Marshall Middle School	0.295552367	0.49635	0.71	0.52
Mary Helen Guest Elementary School	0.350490196	0.377066667	0.66	0.52
Superior Hills Elementary School	0.312997347	0.4534	0.69	0.52
South Meadows Elementary School	0.140510949	0.87645	0.84	0.52
Willow School	0.937007874	-0.9946	0.14	0.52
Shepherd Elementary School	0.365925926	0.340533333	0.64	0.52
Clawson Middle School	0.385185185	0.301925	0.62	0.52
McAlear-Sawden Elem. School	0.373214286	0.321066667	0.63	0.52

Top to Bottom Ranking 111

Climax-Scotts Elementary School	0.429245283	0.19535	0.58	0.52
Manistee High School	0.382409178	0.293716	0.62	0.52
Tri-Township School	0.438461538	0.179785	0.57	0.52
Shettler School	0.436724566	0.178733333	0.57	0.52
John M. Barnes Elem. School	0.433649289	0.177633333	0.57	0.52
Stoney Creek High School	0.083818393	1.02382	0.87	0.52
Miller Elementary School	0.877876106	-0.848833333	0.17	0.52
Donley Elementary School	0.46557377	0.1163	0.53	0.52
Onaway Senior High School	0.495145631	0.051266	0.5	0.52
Washington Elementary School	0.504043127	0.023933333	0.49	0.52
Betsie Valley School	0.798850575	-0.649	0.23	0.52
McBain Middle School	0.511864407	0.009025	0.48	0.52
Masonic Heights Elementary School	0.488738739	0.060833333	0.5	0.52
Hartford Middle School	0.807073955	-0.667125	0.22	0.52
Grant Middle School	0.529318542	-0.0262	0.46	0.52
P.D. Chatterton Middle School	0.775834658	-0.59305	0.24	0.52
Allendale Elementary School	0.740213523	-0.508566667	0.27	0.52
Wall School	0.772321429	-0.5872	0.24	0.52
Thomas A. Edison Elem. School	0.623632385	-0.2392	0.37	0.52
Chester F. Miller School	0.747330961	-0.5299	0.26	0.52
Webster Elementary School	0.584558824	-0.15885	0.4	0.52
Vandenberg Elementary School	0.675	-0.356533333	0.32	0.52
Fennville Public High School	0.647982063	-0.302302	0.34	0.52
Graebner Elementary School	0.251644737	0.588333333	0.75	0.51
Campau Park School	0.978798587	-1.1095	0.11	0.51
Lapeer West Senior High School	0.316620241	0.439788	0.69	0.51
Emma V. Lobbetael Elem. School	0.291784703	0.4928	0.71	0.51
Clinton Middle School	0.312727273	0.441725	0.69	0.51
Hughes Elementary School	0.33201581	0.399633333	0.67	0.51
Fancher School	0.352348993	0.3527	0.65	0.51
Franklin School	0.956521739	-1.053766667	0.12	0.51
Britton-Macon Area School	0.347744361	0.36489	0.65	0.51
Central Elementary School	0.39148073	0.271666667	0.61	0.51
Marine City Middle School	0.405737705	0.227775	0.59	0.51
South Elementary School	0.436031332	0.170066667	0.56	0.51
Doyle/Ryder School	0.902439024	-0.9293	0.15	0.51
Montague High School	0.422885572	0.192098	0.57	0.51
Hillsdale High School	0.445434298	0.148738	0.55	0.51
Sand Lake Elementary School	0.444767442	0.1535	0.55	0.51
Niles Senior High School	0.443622921	0.15316	0.55	0.51
Southeast Kelloggsville School	0.805389222	-0.688433333	0.22	0.51
Collins Elementary School	0.771889401	-0.60905	0.24	0.51
Fennville Middle School	0.75739645	-0.565425	0.25	0.51

Top to Bottom Ranking 112

Cardinal Elementary	0.730864198	-0.509966667	0.27	0.51
Lyons School	0.728222997	-0.500733333	0.27	0.51
Highview Elementary School	0.6	-0.202733333	0.38	0.51
Avalon Elementary School	0.633204633	-0.2716	0.35	0.51
Tyrone Elementary School	0.723735409	-0.496133333	0.27	0.51
Constantine Middle School	0.562300319	-0.118575	0.41	0.51
Allendale High School	0.236541599	0.602598	0.76	0.5
Portage Central High School	0.174198251	0.761954	0.81	0.5
Ardmore Elementary School	0.310173697	0.4396	0.69	0.5
Holt Senior High School	0.263577118	0.54119	0.73	0.5
Bullock Creek Elementary School	0.295620438	0.46725	0.7	0.5
Johnson Upper Elementary School	0.260586319	0.54565	0.73	0.5
Duvall Elementary School	0.260223048	0.553833333	0.73	0.5
Smith Road Elementary School	0.282051282	0.502266667	0.71	0.5
Plymouth High School	0.154983309	0.806964	0.82	0.5
George Crockett Academy	0.941747573	-1.0417	0.13	0.5
Pierre Toussaint Academy	0.951530612	-1.059575	0.12	0.5
Whitehills Elementary School	0.334545455	0.38275	0.66	0.5
Cooley Elementary School	0.364444444	0.316233333	0.63	0.5
Kenowa Hills High School	0.341105354	0.365176	0.65	0.5
Southwest Elementary School	0.337142857	0.367466667	0.65	0.5
Grand Blanc Middle School West	0.368787276	0.2913	0.62	0.5
Gobles High School	0.424942263	0.17934	0.57	0.5
Grant High School	0.397708674	0.229442	0.59	0.5
Nsoroma Institute	0.859649123	-0.831175	0.18	0.5
Arrowwood Elementary School	0.448529412	0.124166667	0.54	0.5
Byron Area Middle School	0.447811448	0.130075	0.54	0.5
Chandler Park Academy - High School	0.846737481	-0.79726	0.19	0.5
Homer Community High School	0.489028213	0.029442	0.49	0.5
Holton High School	0.538461538	-0.072994	0.44	0.5
Jefferson School	0.694610778	-0.445233333	0.3	0.5
Eastland Middle School	0.693975904	-0.4362	0.3	0.5
Sycamore Elementary School	0.579387187	-0.165833333	0.4	0.5
Burton International School	0.704142012	-0.4564	0.29	0.5
Reese Elementary School	0.520134228	-0.0358	0.45	0.5
Hatherly Elementary School	0.564885496	-0.1351	0.41	0.5
Bark River-Harris Elementary School	0.541984733	-0.0923	0.43	0.5
Maple Grove Elementary School	0.604519774	-0.2345	0.37	0.5
Bright Start Elementary School	0.658227848	-0.3544	0.32	0.5
Harrison Park Elementary School	0.96728972	-1.1135	0.11	0.49
Gill Elementary School	0.28245614	0.4913	0.71	0.49
Petoskey High School	0.314796425	0.41093	0.68	0.49
Kenbrook Elementary School	0.177458034	0.739133333	0.8	0.49



Top to Bottom Ranking 113

Bach Elementary School	0.176470588	0.745733333	0.8	0.49
Lake Orion Community High School	0.176400477	0.74892	0.8	0.49
Dundee Middle School	0.30020284	0.45095	0.69	0.49
Fowler High School	0.139784946	0.823248	0.83	0.49
Hyatt Elementary	0.296958855	0.4485	0.69	0.49
Southeast Elementary School	0.284860558	0.483933333	0.7	0.49
Ann L. Dolsen Elementary School	0.284431138	0.474666667	0.7	0.49
Pioneer Middle School	0.135672515	0.8458	0.83	0.49
Marshall, Thurgood Elementary School	0.93373494	-1.0264	0.13	0.49
Norway High School	0.317269076	0.401248	0.67	0.49
Central Elementary School	0.335390947	0.3569	0.65	0.49
Pleasant Ridge Elementary School	0.12962963	0.8542	0.83	0.49
Potterville High School	0.364341085	0.297716	0.62	0.49
Kenowa Hills Central Elementary School	0.386046512	0.24775	0.6	0.49
Cornerstone Elementary School	0.088838269	0.9627	0.86	0.49
Cheyenne Elementary School	0.099045346	0.938633333	0.85	0.49
Centreville High School	0.394366197	0.232036	0.59	0.49
Sherwood Global Studies Academy	0.892938497	-0.9387	0.15	0.49
Webster Elementary School	0.856603774	-0.8358	0.18	0.49
Capac High School	0.421647819	0.167622	0.56	0.49
Bendle Middle School	0.875	-0.884525	0.16	0.49
Northville High School	0.043497758	1.076684	0.88	0.49
Carson City-Crystal High School	0.451149425	0.09385	0.52	0.49
Summerfield Middle School ***	0.5	-0.0097	0.47	0.49
Nellie B. Chisholm Middle School	0.509493671	-0.02865	0.46	0.49
Hinks School	0.485981308	0.0189	0.48	0.49
Gerisch Middle School	0.508322663	-0.016666667	0.46	0.49
Arenac Eastern Middle/High School	0.766871166	-0.62605	0.23	0.49
Vernor Elementary School	0.720689655	-0.5137	0.27	0.49
Bertha Neal School	0.56043956	-0.1426	0.41	0.49
Robichaud Senior High School	0.742729306	-0.564726	0.25	0.49
Barhitte Elementary School	0.67281106	-0.408266667	0.31	0.49
Tenniswood Elementary School	0.613402062	-0.2623	0.36	0.49
CA Frost Environmental Science Academy	0.634951456	-0.316025	0.34	0.49
May V. Peck Elementary School	0.531855956	-0.0803	0.43	0.49
Newaygo Middle School	0.634146341	-0.315925	0.34	0.49
Springport Elementary School	0.644710579	-0.3444	0.33	0.49
Carrollton High School	0.60990099	-0.262406	0.36	0.49
Delton Kellogg Elem. School	0.574733096	-0.174733333	0.39	0.49
Garber High School	0.242276423	0.56023	0.74	0.48
Victory Academy Charter School	0.946308725	-1.07945	0.12	0.48
St. Johns High School	0.256744186	0.532854	0.72	0.48
Grass Lake Middle School	0.255172414	0.53325	0.72	0.48

Top to Bottom Ranking 114

Quincy High School	0.323155216	0.376964	0.66	0.48
Marvin L. Winans Academy of Performing Arts Elem.	0.89958159	-0.959	0.15	0.48
Shields Elementary School	0.347150259	0.317933333	0.63	0.48
Brendel Elementary School	0.392033543	0.220233333	0.59	0.48
John Glenn High School	0.383838384	0.23181	0.59	0.48
Bagley Elementary School	0.858513189	-0.869366667	0.17	0.48
Wenzel School	0.858108108	-0.8644	0.17	0.48
Violet Elementary School	0.450892857	0.0902	0.52	0.48
Laker High School	0.482972136	0.008022	0.48	0.48
Sturgis High School	0.471014493	0.034952	0.49	0.48
Frankfort High School	0.516260163	-0.05247	0.45	0.48
Davis Aerospace High School	0.752475248	-0.60221	0.24	0.48
Summit Academy North Middle School	0.489655172	0.001325	0.47	0.48
Great Lakes Elementary School	0.714788732	-0.520266667	0.27	0.48
Pleasantview Elementary School	0.748691099	-0.6021	0.24	0.48
Boyne City Elementary School	0.529661017	-0.091	0.43	0.48
Vern Van Y. School	0.746212121	-0.59835	0.24	0.48
Oakridge Middle School	0.651757188	-0.380725	0.32	0.48
Eastlawn School	0.639798489	-0.3449	0.33	0.48
Rudyard High School	0.514056225	-0.057204	0.44	0.48
Turrill Elementary School	0.637254902	-0.343333333	0.33	0.48
Great Lakes Academy	0.963114754	-1.1315	0.11	0.47
Gerald R. Ford Middle School	0.968992248	-1.1567	0.1	0.47
Milford High School	0.212598425	0.62948	0.76	0.47
Caledonia High School	0.177577126	0.71331	0.79	0.47
Dansville High School	0.267123288	0.485886	0.71	0.47
Walt Disney Elementary School	0.308943089	0.394733333	0.67	0.47
Mt. Clemens Montessori Academy	0.182370821	0.686233333	0.78	0.47
Ludington High School	0.315937941	0.377272	0.66	0.47
Huron Elementary School	0.315217391	0.386933333	0.66	0.47
Almont Middle School	0.302267003	0.408175	0.67	0.47
Covert High School	0.917127072	-1.021016	0.13	0.47
Edwardsburg Middle School	0.331210191	0.34395	0.64	0.47
Eisenhower School	0.88184438	-0.939466667	0.15	0.47
Sand Creek High School	0.4	0.18765	0.57	0.47
Wilkinson Middle School	0.849264706	-0.85265	0.17	0.47
E.E. Knight Elementary School	0.424	0.129566667	0.54	0.47
Ann J. Kellogg School	0.817891374	-0.793333333	0.19	0.47
Schuchard Elementary School	0.448920863	0.076166667	0.51	0.47
Oakwood Elementary School	0.468571429	0.0294	0.49	0.47
Hopkins Elementary School	0.445623342	0.074733333	0.51	0.47
Imlay City High School	0.453576865	0.06071	0.5	0.47
Thomas Read Elementary School	0.75	-0.6186	0.24	0.47

Top to Bottom Ranking 115

Heritage Elementary School	0.464285714	0.044233333	0.49	0.47
Dort Elementary School	0.74609375	-0.616833333	0.24	0.47
Corunna Middle School	0.481343284	-5.00E-05	0.47	0.47
John F. Kennedy High School	0.570376432	-0.196702	0.39	0.47
Au Gres-Sims Middle and High School	0.535885167	-0.11456	0.42	0.47
Huron Park Elementary School	0.752358491	-0.631533333	0.23	0.47
South Range Elementary School	0.64628821	-0.3744	0.32	0.47
Atherton Middle School	0.725433526	-0.55605	0.25	0.47
Mill Creek Middle School	0.528225806	-0.1093	0.42	0.47
Fortis Academy	0.526809651	-0.096275	0.42	0.47
Beach Elementary School	0.536585366	-0.119266667	0.41	0.47
Standish-Sterling Middle School	0.604221636	-0.276075	0.35	0.47
Commonwealth Community Development Academy	0.996153846	-1.251533333	0.09	0.46
Farmington High School	0.217872969	0.58457	0.75	0.46
Horizon Elementary School	0.156804734	0.736666667	0.8	0.46
Heritage Elementary School	0.279869067	0.44	0.69	0.46
Davison Elementary School	0.922857143	-1.066375	0.12	0.46
Washtenaw Technical Middle College	0.100263852	0.891902	0.84	0.46
Riley Street Middle School	0.354527938	0.272525	0.61	0.46
Lemmer Elementary School	0.4	0.165766667	0.56	0.46
Riverside Elementary School	0.4	0.164566667	0.56	0.46
Swartz Creek Middle School	0.408845739	0.14425	0.55	0.46
Camden-Frontier High School	0.417721519	0.123756	0.54	0.46
Clintondale Middle School	0.826789838	-0.8293	0.18	0.46
Moore Elementary School	0.812297735	-0.7929	0.19	0.46
Rose City Middle School	0.741258741	-0.6126	0.24	0.46
Cedar Lake Elementary School	0.728571429	-0.5814	0.25	0.46
Parnall Elementary School	0.482758621	-0.0195	0.46	0.46
North Adams-Jerome Elem. School	0.619047619	-0.324733333	0.34	0.46
Lamora Park School	0.732793522	-0.5996	0.24	0.46
Fruitport Middle School	0.48164464	-0.0204	0.46	0.46
Alexander Elementary School	0.512626263	-0.08	0.43	0.46
Morris Adler Elementary School	0.535307517	-0.140766667	0.41	0.46
Camden-Frontier Middle School	0.601694915	-0.2875	0.35	0.46
Lakeview Middle School	0.550976139	-0.1766	0.39	0.46
Walnut Creek Middle School	0.225158562	0.56385	0.74	0.45
Romeo Middle School	0.244206774	0.513	0.72	0.45
Honey Creek Community School	0.129310345	0.796875	0.82	0.45
DeWitt Junior High School	0.11622807	0.8271	0.83	0.45
Navigator School	0.161242604	0.71265	0.79	0.45
Hamilton Parsons Elem. School	0.229580574	0.546333333	0.73	0.45
Dundee Community High School	0.240816327	0.514666	0.72	0.45
Coopersville High School	0.258928571	0.480012	0.7	0.45

Top to Bottom Ranking 116

Eriksson Elementary School	0.269439421	0.447666667	0.69	0.45
Maple City-Glen Lake Jr/Sr High School	0.280193237	0.42895	0.68	0.45
Heritage High School	0.31390652	0.360086	0.65	0.45
Thompson Middle School	0.916666667	-1.059975	0.12	0.45
Bates Elementary School	0.104519774	0.8644	0.83	0.45
Dudley School	0.913934426	-1.060233333	0.12	0.45
Lafayette School	0.900735294	-1.0172	0.13	0.45
Eaton Rapids Senior High School	0.318229715	0.340728	0.64	0.45
Hamady Middle School	0.888392857	-0.98365	0.14	0.45
Academy of Westland	0.887755102	-0.98685	0.14	0.45
Smith Elementary School	0.07606679	0.941333333	0.85	0.45
Thornapple Kellogg Middle School	0.359701493	0.2542	0.6	0.45
Pontiac Academy for Excellence - High School	0.893203883	-1.006384	0.13	0.45
Joseph M. Carkenord Elementary School	0.379373849	0.207466667	0.58	0.45
Oak Manor Sixth Grade Center	0.37716263	0.20885	0.58	0.45
Burton Glen Charter Academy	0.86431479	-0.940875	0.15	0.45
Sonoma Elementary	0.395209581	0.172366667	0.56	0.45
North Branch High School	0.408684547	0.130828	0.54	0.45
Sister Lakes Elementary School	0.795121951	-0.769966667	0.2	0.45
Ottawa Elementary School	0.446969697	0.054266667	0.5	0.45
Paw Paw Later Elementary	0.458064516	0.024833333	0.49	0.45
Whitmore-Bolles Elementary School	0.434163701	0.0767	0.51	0.45
Davis Middle School	0.648393195	-0.405525	0.31	0.45
Pennfield Purdy School	0.520491803	-0.1121	0.42	0.45
Dix Street Elementary School	0.497237569	-0.067866667	0.44	0.45
Washington School	0.690909091	-0.5155	0.27	0.45
McComb Elementary School	0.656542056	-0.4361	0.3	0.45
Laurus Academy	0.677290837	-0.4816	0.28	0.45
Evert Middle School	0.698245614	-0.53005	0.26	0.45
Belding Middle School	0.594537815	-0.2987	0.35	0.45
Riverview Elementary School	0.570652174	-0.2415	0.37	0.45
Sullivan Elementary School	0.581081081	-0.250533333	0.36	0.45
Keicher Elementary School	0.57960199	-0.2503	0.36	0.45
Sibley School	0.968190855	-1.218366667	0.1	0.44
Houghton Elementary School	0.97309417	-1.22475	0.09	0.44
Chandler Park Academy - Elementary	0.943170489	-1.148633333	0.11	0.44
Wacousta Elementary School	0.229473684	0.5361	0.73	0.44
E.F. Rittmueller Middle School	0.170588235	0.683	0.78	0.44
Lakewood Elementary School	0.170068027	0.684233333	0.78	0.44
Rosedale Elementary	0.261168385	0.457666667	0.7	0.44
Plainwell High School	0.236192714	0.52065	0.72	0.44
Royal Oak High School	0.268414482	0.44857	0.69	0.44
Harbor Springs High School	0.277439024	0.412108	0.68	0.44

Top to Bottom Ranking 117

Abbott Middle School	0.241699867	0.50825	0.71	0.44
Hevel Elementary	0.271948608	0.4288	0.68	0.44
Powell Middle School	0.313535912	0.331425	0.64	0.44
Central High School	0.334680135	0.288296	0.62	0.44
Whiteford High School ***	0.333333333	0.295824	0.62	0.44
Blanche Sims Elementary School	0.341085271	0.284566667	0.61	0.44
Chesaning Union High School	0.359375	0.23519	0.59	0.44
Bennie Elementary School	0.345971564	0.2636	0.6	0.44
Paw Paw Middle School	0.401980198	0.141575	0.55	0.44
Forrest G. Averill School	0.828571429	-0.864866667	0.17	0.44
F.C. Reed Middle School	0.403333333	0.12765	0.54	0.44
Eaton Rapids Middle School	0.402912621	0.13415	0.54	0.44
Excel Charter Academy	0.423497268	0.087	0.52	0.44
Elms Elementary School	0.41108545	0.110166667	0.53	0.44
Marjorie Carlson Elementary School	0.797222222	-0.7895	0.19	0.44
Clio Area High School	0.407894737	0.1201	0.53	0.44
James T. Jones Elementary School	0.417613636	0.106933333	0.52	0.44
Blissfield Middle School	0.425742574	0.07755	0.51	0.44
Reese Middle School	0.434782609	0.061625	0.5	0.44
Tawas Area Middle School	0.52398524	-0.1426	0.41	0.44
Carman-Ainsworth Middle School	0.682438581	-0.5084	0.27	0.44
Jefferson Elementary School	0.612009238	-0.338133333	0.33	0.44
Marion Elementary School	0.689655172	-0.52585	0.26	0.44
McLaughlin Elementary School	0.98490566	-1.26955	0.08	0.43
Midland High School	0.195351759	0.598962	0.76	0.43
Salina Elementary P - 3	0.933747412	-1.14385	0.11	0.43
Jenison High School	0.224311619	0.537158	0.73	0.43
Hartland High School	0.131329994	0.76996	0.81	0.43
Shelby Junior High School	0.11778291	0.803125	0.82	0.43
Salem High School	0.162970106	0.691746	0.78	0.43
Wyandot Middle School	0.299481865	0.361775	0.65	0.43
Oakview Elementary School	0.887983707	-1.020233333	0.13	0.43
Three Oaks Public School Academy	0.875420875	-0.9884	0.14	0.43
Kenwood Elementary School	0.337748344	0.275	0.61	0.43
Ishpeming High School	0.388489209	0.158512	0.56	0.43
Sampson Academy	0.864864865	-0.96665	0.14	0.43
Rainbow Elementary School	0.822222222	-0.872233333	0.17	0.43
Shoreline Elementary School	0.387225549	0.1523	0.55	0.43
Hastings Middle School	0.395802099	0.13135	0.54	0.43
Roosevelt Elementary School	0.827586207	-0.881166667	0.16	0.43
Waterloo School ***	0.8	-0.80195	0.18	0.43
Fennville Elementary School	0.765069552	-0.720433333	0.21	0.43
Pickford Elementary School	0.408783784	0.104825	0.52	0.43

Top to Bottom Ranking 118

South Haven High School	0.429394813	0.06276	0.5	0.43
Ridge Park Charter Academy	0.74024024	-0.6703	0.22	0.43
R. Grant Graham Elem. School	0.464019851	-0.022733333	0.46	0.43
Elms Road Elementary School	0.482758621	-0.0681	0.44	0.43
Tekonsha Middle School	0.676470588	-0.5091	0.27	0.43
Rudyard Middle School	0.642011834	-0.445025	0.3	0.43
Robert Kerr School	0.502487562	-0.111233333	0.42	0.43
Hesperia St. Clair Elementary School	0.684596577	-0.5337	0.26	0.43
Tekonsha Elementary School	0.682926829	-0.52945	0.26	0.43
Ella M. White School	0.580246914	-0.285666667	0.35	0.43
Clare Primary School	0.533562823	-0.174966667	0.39	0.43
North Ward Elementary School	0.498168498	-0.096666667	0.42	0.43
Botsford Elementary School	0.55216285	-0.23	0.37	0.43
Riverside Middle School	0.944897959	-1.187325	0.1	0.42
Forsythe Middle School	0.188821752	0.61055	0.76	0.42
Roosevelt Elementary School	0.170960187	0.647933333	0.77	0.42
Merrill Park Elementary School	0.921348315	-1.123366667	0.11	0.42
Browning Elementary School	0.122736419	0.7614	0.81	0.42
Jessie Loomis School	0.918079096	-1.115833333	0.11	0.42
Woodward Academy	0.906525573	-1.099425	0.12	0.42
East Lansing High School	0.255506608	0.450226	0.69	0.42
Gull Lake Middle School	0.221238938	0.532425	0.72	0.42
Oxford Area Middle School	0.253128008	0.447625	0.69	0.42
Bloomfield Hills Lahser H.S.	0.10428737	0.817448	0.82	0.42
Lincoln Elementary School	0.839879154	-0.918933333	0.16	0.42
Hutchinson Elementary School	0.83908046	-0.924975	0.16	0.42
Cooper Upper Elementary School	0.334298119	0.26915	0.6	0.42
Holt Junior High School	0.385492228	0.144625	0.55	0.42
Lakeview Middle School	0.422570016	0.057925	0.5	0.42
Key Elementary School	0.741735537	-0.6916	0.22	0.42
East Kentwood High School	0.474463739	-0.051854	0.45	0.42
Gladwin High School	0.5	-0.113224	0.42	0.42
Laker Junior High School	0.487684729	-0.090225	0.43	0.42
Alma Middle School	0.521472393	-0.16125	0.4	0.42
Erickson School	0.702991453	-0.596633333	0.24	0.42
Reed City Middle School	0.552777778	-0.236325	0.37	0.42
Thunder Bay Junior High School	0.495384615	-0.100175	0.42	0.42
River School	0.594202899	-0.3405	0.33	0.42
Williams Elementary School	0.513850416	-0.149966667	0.4	0.42
Sheldon Woods Elementary School	0.554794521	-0.2462	0.36	0.42
Academy of Warren	0.982120051	-1.289825	0.08	0.41
Westwood Middle School	0.975308642	-1.285475	0.08	0.41
Dickinson School	0.963815789	-1.257933333	0.09	0.41

Shawnee Science, Math and Tech. Academy	0.903571429	-1.098566667	0.12	0.41
Wylie E. Groves High School	0.103100775	0.788616	0.82	0.41
Hickory Woods Elementary School	0.225210084	0.500766667	0.71	0.41
Fenton Senior High School	0.259138911	0.422838	0.68	0.41
Clinton Elementary School	0.267818575	0.407233333	0.67	0.41
Wylie Elementary School	0.083011583	0.8557	0.83	0.41
Woodbridge Elementary School	0.285132383	0.352066667	0.65	0.41
Godfrey Elementary School	0.872180451	-1.0254	0.13	0.41
South River Elementary School	0.30153322	0.315366667	0.63	0.41
Coopersville Middle School	0.332767402	0.2466	0.6	0.41
Dossin Elementary School	0.845	-0.960875	0.15	0.41
Bullock Creek High School	0.361290323	0.186576	0.57	0.41
Highland Elementary School	0.360103627	0.185466667	0.57	0.41
Haviland Elementary School	0.366925065	0.1679	0.56	0.41
Dansville Elementary School	0.375634518	0.145233333	0.55	0.41
Columbia Middle School	0.373219373	0.152425	0.55	0.41
Coolidge Intermediate School	0.775086505	-0.788633333	0.19	0.41
Sparta Middle School	0.429301533	0.034325	0.49	0.41
Brandywine Senior High School	0.449519231	-0.008222	0.47	0.41
North Elementary School	0.4374034	0.021166667	0.48	0.41
Harrison Middle School	0.730245232	-0.6909	0.22	0.41
Landmark Academy	0.454450262	-0.017775	0.46	0.41
Kennedy Middle School	0.465260546	-0.0484	0.45	0.41
River Valley High School	0.452380952	-0.015536	0.46	0.41
Pinewood Elementary School	0.472684086	-0.058733333	0.44	0.41
Harrison Community High School	0.620041754	-0.41636	0.31	0.41
A.A. Rather School	0.471698113	-0.070133333	0.44	0.41
Jonesville Middle School	0.516556291	-0.16665	0.4	0.41
Imlay City Middle School	0.549618321	-0.243675	0.37	0.41
Carson City-Crystal Middle School	0.537662338	-0.222825	0.38	0.41
Pellston Elementary School	0.639455782	-0.4576	0.29	0.41
Bellview Elementary School	0.62797619	-0.4344	0.3	0.41
Gobles Elementary School	0.490797546	-0.1022	0.42	0.41
Beechnau Elementary School	0.512064343	-0.162566667	0.4	0.41
Forest Area High School	0.625	-0.438592	0.3	0.41
Loy Norrix High School	0.635811836	-0.463386	0.29	0.41
Adlai Stevenson Elementary School	0.668085106	-0.541333333	0.26	0.41
Sharp Park Academy	0.506072874	-0.14555	0.4	0.41
George Defer Elementary School	0.205583756	0.540533333	0.73	0.4
Williamston Discovery Elementary School	0.22826087	0.4875	0.71	0.4
Cass Elementary School	0.156050955	0.655	0.77	0.4
Iroquois Middle School	0.212268744	0.51425	0.72	0.4
Marshall High School	0.200534759	0.550174	0.73	0.4

Top to Bottom Ranking 120

Charyl Stockwell Academy	0.097457627	0.79	0.82	0.4
Erie Elementary School	0.244755245	0.4386	0.69	0.4
Three Fires Middle School	0.218894009	0.50625	0.71	0.4
Pembroke Elementary School	0.136507937	0.6901	0.78	0.4
Sutton Elementary School	0.26	0.4094	0.67	0.4
Beacon Tree Elementary School	0.063469676	0.8808	0.84	0.4
Detroit Academy of Arts and Sciences	0.878787879	-1.067366667	0.12	0.4
Swan Valley High School	0.285271318	0.351704	0.64	0.4
Dodson Elementary School	0.044345898	0.916866667	0.85	0.4
North School	0.8767507	-1.060166667	0.12	0.4
Miami Elementary School	0.317427386	0.275166667	0.61	0.4
Merrill High School	0.34375	0.21223	0.58	0.4
Plainwell Middle School	0.319749216	0.259975	0.6	0.4
Yake Elementary School	0.342281879	0.2133	0.58	0.4
Hayes Elementary School	0.340782123	0.2107	0.58	0.4
Hale Creek Elementary School	0.824120603	-0.9279	0.15	0.4
Meadowbrook Elementary School	0.35637149	0.172933333	0.56	0.4
Bad Axe High School	0.386308068	0.113918	0.53	0.4
Cascades School	0.807692308	-0.8928	0.16	0.4
Wayland High School	0.379760609	0.12097	0.53	0.4
Robeson Academy	0.789198606	-0.8463	0.17	0.4
Kingsford Middle School	0.41025641	0.054825	0.5	0.4
Eastern Washtenaw Multicultural Academy	0.739130435	-0.7308	0.21	0.4
Michigan School for the Deaf ***	0.5	-0.1414	0.41	0.4
Da Vinci Institute (K-8)	0.680272109	-0.584733333	0.25	0.4
L.E. White Middle School	0.497512438	-0.140825	0.41	0.4
Madison Elementary School	0.565916399	-0.298166667	0.35	0.4
Conner Creek Academy East-MI Collegiate High	0.713930348	-0.658032	0.22	0.4
Oakridge Lower Elementary School	0.678657074	-0.57175	0.25	0.4
Mason County Central H.S.	0.48440367	-0.114382	0.42	0.4
Emerson School	0.598148148	-0.3868	0.32	0.4
Bangor High School	0.643243243	-0.489456	0.28	0.4
Lillian Fletcher Elem. School	0.574519231	-0.326766667	0.34	0.4
Romulus Senior High School	0.631531532	-0.454672	0.29	0.4
Meryl S. Colt Elementary School	0.570957096	-0.313866667	0.34	0.4
Saranac Elementary School	0.502040816	-0.145733333	0.4	0.4
Linwood Elementary School	0.513157895	-0.18315	0.39	0.4
Central Montcalm Upper Elem. School	0.661057692	-0.526966667	0.26	0.4
Luther L. Wright High School	0.55785124	-0.27713	0.35	0.4
Stanton Elementary School	0.64806867	-0.5041	0.27	0.4
Leroy Elementary School	0.647577093	-0.50665	0.27	0.4
Morenci Elementary School	0.583892617	-0.3494	0.32	0.4
Coburn School	0.948275862	-1.255233333	0.09	0.39



Top to Bottom Ranking 121

Trenton High School	0.183716075	0.564566	0.74	0.39
Ida High School	0.182857143	0.561176	0.74	0.39
Coolidge Elementary School	0.147991543	0.640466667	0.77	0.39
Northeastern Elementary School	0.9	-1.141533333	0.11	0.39
Arthur Eddy K-8 Academy	0.887272727	-1.1069	0.12	0.39
Grandville High School	0.246137453	0.417112	0.68	0.39
Johnson Elementary School	0.266514806	0.378866667	0.66	0.39
Marysville Middle School	0.273615635	0.35635	0.65	0.39
Westlake Elementary School	0.28238342	0.3406	0.64	0.39
Oscar A. Carlson High School	0.291853178	0.323798	0.63	0.39
Abbot School	0.302547771	0.292866667	0.62	0.39
Otsego High School	0.32780083	0.227718	0.59	0.39
Arts and Technology Academy of Pontiac	0.8275	-0.953625	0.15	0.39
Red Cedar School	0.385826772	0.09865	0.52	0.39
Fred W. Ritter Elementary School	0.44077135	-0.021666667	0.46	0.39
Springview Elementary School	0.428205128	-0.005866667	0.47	0.39
Mar Lee School	0.473053892	-0.0926	0.43	0.39
Lake Shore High School	0.427046263	-0.00349	0.47	0.39
Merritt Academy	0.434180139	-0.0189	0.46	0.39
New Haven Elementary School	0.500807754	-0.162166667	0.4	0.39
River Valley Middle School	0.568862275	-0.327825	0.34	0.39
Orchard View Middle School	0.659305994	-0.547475	0.26	0.39
Hillcrest Elementary School	0.533333333	-0.240666667	0.37	0.39
Pine Island Elementary	0.589941973	-0.375766667	0.32	0.39
Beaverton Primary School	0.633245383	-0.4724	0.28	0.39
West Utica Elementary School	0.621311475	-0.448266667	0.29	0.39
Central Middle School	0.608	-0.4251	0.3	0.39
Evert High School	0.538461538	-0.252648	0.36	0.39
Baldwin Junior High School	0.91954023	-1.2088	0.1	0.38
Cornell Elementary School	0.178674352	0.561966667	0.74	0.38
Summerfield School	0.905594406	-1.164066667	0.1	0.38
Timberland Academy	0.90487239	-1.174625	0.1	0.38
Berkshire Middle School	0.117565698	0.704	0.79	0.38
Malow Junior High School	0.126748971	0.67935	0.78	0.38
Parke Lane Elementary School	0.091463415	0.7627	0.81	0.38
Parcells Middle School	0.181556196	0.548725	0.73	0.38
Wass Elementary School	0.073791349	0.7977	0.82	0.38
Houghton Elementary School	0.271276596	0.349433333	0.64	0.38
Sparta Senior High School	0.347270616	0.173796	0.57	0.38
Pine Tree Elementary School	0.36091954	0.1448	0.55	0.38
Forest View School	0.816546763	-0.960766667	0.15	0.38
Bates Elementary School	0.353070175	0.153066667	0.55	0.38
Haverhill Elementary School	0.372262774	0.119666667	0.53	0.38

Top to Bottom Ranking 122

Escanaba Area Public High School	0.400392542	0.0456	0.5	0.38
Romulus Middle School	0.73046875	-0.7307	0.21	0.38
Hudson Area High School	0.420863309	0.001968	0.48	0.38
Lucile S. Patton Elem. School	0.743315508	-0.7711	0.19	0.38
Twin Lake School	0.441860465	-0.054166667	0.45	0.38
Bangor Central School	0.680440771	-0.6154	0.24	0.38
Lincoln Park High School	0.667959659	-0.577158	0.25	0.38
Reeths-Puffer Middle School	0.462540717	-0.087525	0.43	0.38
Grand Rapids Montessori Public School	0.701923077	-0.66745	0.22	0.38
Lee M. Thurston High School	0.504162812	-0.18038	0.39	0.38
Lake City High School	0.592797784	-0.404198	0.31	0.38
White Cloud High School	0.648318043	-0.531208	0.26	0.38
Central Montcalm Middle School	0.590909091	-0.397025	0.31	0.38
MacNaughton School	0.573055028	-0.3525	0.32	0.38
Burton Middle School	0.986696231	-1.390125	0.06	0.37
Fair Plain Renaissance Middle School	0.94198895	-1.284025	0.08	0.37
Stone School	0.941441441	-1.2878	0.08	0.37
Ruben Daniels Middle School	0.939203354	-1.277825	0.08	0.37
Hamlin Elementary School	0.233480176	0.409966667	0.68	0.37
Oxford High School	0.241545894	0.406784	0.67	0.37
Pleasant Lake Elementary School	0.262664165	0.353166667	0.65	0.37
Neithercut Elementary School	0.877005348	-1.121733333	0.11	0.37
Lowell Senior High School	0.246774194	0.385028	0.66	0.37
Fowlerville High School	0.279094828	0.324526	0.63	0.37
Wiley Elementary School	0.278232406	0.326	0.63	0.37
Mona Shores High School	0.305433186	0.246354	0.6	0.37
West Intermediate School	0.316	0.2383	0.59	0.37
Plumbrook Elementary School	0.356993737	0.131433333	0.54	0.37
Northwest High School	0.368176539	0.10866	0.53	0.37
Jefferson Middle School	0.382978723	0.081825	0.51	0.37
Ithaca High School	0.382581649	0.08296	0.51	0.37
Roosevelt High School	0.391006098	0.052292	0.5	0.37
Ojibwe Charter School	0.744186047	-0.78405	0.19	0.37
Addison Jr/Sr High School	0.409638554	0.016034	0.48	0.37
Fern Persons Elementary School	0.398126464	0.0372	0.49	0.37
Woodmont Academy	0.740046838	-0.7721	0.19	0.37
Bronson Jr/Sr High School ***	0.409090909	0.00816	0.48	0.37
Jefferson Elementary 5th/6th	0.397553517	0.0364	0.49	0.37
Cedar Crest Elementary School	0.659305994	-0.5728	0.25	0.37
Warren Woods Tower High School	0.442291491	-0.06225	0.44	0.37
Oakridge High School	0.50931677	-0.213814	0.38	0.37
Arbor Academy	0.645454545	-0.53185	0.26	0.37
Golightly Education Center	0.622641509	-0.49165	0.28	0.37

Top to Bottom Ranking 123

Harbor Beach Community High School	0.45	-0.083956	0.43	0.37
Gudith Elementary School	0.45	-0.0787	0.43	0.37
Sodt Elementary School	0.506811989	-0.209966667	0.38	0.37
Central Grade School	0.52661597	-0.264266667	0.36	0.37
Willow Woods Elementary School	0.445512821	-0.075966667	0.43	0.37
Eisenhower Elementary School	0.523719165	-0.2571	0.36	0.37
Concord Middle School	0.463687151	-0.1179	0.41	0.37
Northridge Academy	0.993174061	-1.44305	0.06	0.36
Academy of Detroit-West	0.930656934	-1.2665	0.09	0.36
Brownell School	0.918367347	-1.237733333	0.09	0.36
Manchester High School	0.162962963	0.56479	0.74	0.36
Grand Ledge High School	0.207121662	0.454518	0.7	0.36
Hamtramck High School	0.879725086	-1.14893	0.11	0.36
Grosse Pointe North High School	0.159613957	0.562308	0.74	0.36
Lake Center Elementary School	0.169312169	0.543166667	0.73	0.36
Country Elementary School	0.157407407	0.5608	0.74	0.36
Lincoln Multi-Age	0.221088435	0.4243	0.68	0.36
Westwoods Elementary School	0.251295337	0.3575	0.65	0.36
Frank E. Bartlett School	0.262162162	0.333733333	0.64	0.36
Richmond Middle School	0.29245283	0.27415	0.61	0.36
Brandon High School	0.324143693	0.19619	0.58	0.36
Salem Elementary School	0.297385621	0.2578	0.6	0.36
Climax-Scotts High School	0.333333333	0.17325	0.56	0.36
Plymouth Educational Center	0.756202805	-0.8229	0.18	0.36
Richardson Elementary School	0.738562092	-0.789433333	0.19	0.36
McBain High School	0.406593407	0.01201	0.48	0.36
St. Louis High School	0.412087912	-0.011294	0.47	0.36
Morley Stanwood Middle School	0.669642857	-0.611625	0.24	0.36
Litchfield High School	0.680555556	-0.647825	0.23	0.36
Townsend North School	0.632786885	-0.51615	0.27	0.36
Clarenceville Middle School	0.495024876	-0.19735	0.39	0.36
Fillmore Elementary School	0.459102902	-0.1104	0.42	0.36
Wayne Memorial High School	0.618693574	-0.491505	0.28	0.36
Windemere View Elementary School	0.60591133	-0.453333333	0.29	0.36
George R. Carter Middle School	0.466666667	-0.136675	0.41	0.36
Webberville Elementary School	0.442996743	-0.078766667	0.43	0.36
Triumph Academy	0.49847561	-0.204925	0.38	0.36
Baldwin Heights School	0.473136915	-0.147566667	0.4	0.36
Gwinn Middle School	0.552238806	-0.337075	0.33	0.36
East Intermediate School	0.493362832	-0.2025	0.38	0.36
Standish-Sterling Central High School	0.516129032	-0.255682	0.36	0.36
McCulloch School	0.949771689	-1.3451	0.07	0.35
Fisher Magnet Upper Academy	0.891679749	-1.18355	0.1	0.35

Top to Bottom Ranking 124

Scranton Middle School	0.131208997	0.62305	0.76	0.35
North Rockford Middle School	0.218712029	0.411025	0.68	0.35
Lakeland High School	0.227936879	0.38724	0.67	0.35
Jesse L. Anderson Elementary School	0.239092496	0.373966667	0.66	0.35
Bloomfield Hills Andover H.S.	0.078921079	0.72873	0.8	0.35
Dundee Middle School ***	0.2	0.45095	0.69	0.35
WayPoint Academy	0.83490566	-1.044633333	0.13	0.35
Kingsford High School	0.284965035	0.258334	0.6	0.35
Whitmore Lake High School	0.348958333	0.129266	0.54	0.35
Romulus Elementary School	0.76899696	-0.871633333	0.17	0.35
Stockbridge Middle School	0.369272237	0.08675	0.51	0.35
Prairieview School	0.732283465	-0.78585	0.19	0.35
Munising High and Middle School	0.377419355	0.05495	0.5	0.35
Carrollton Middle School	0.730858469	-0.77365	0.19	0.35
Harper Woods Middle School	0.740566038	-0.806625	0.18	0.35
Alpena High School	0.409381663	-0.012882	0.47	0.35
Madison High School	0.682119205	-0.657364	0.23	0.35
Ann Arbor Trail Magnet Middle School	0.727083333	-0.7725	0.19	0.35
Haas Elementary School	0.691666667	-0.688233333	0.22	0.35
Olivet Middle School	0.40285205	0.00035	0.47	0.35
Pleasant View Magnet School	0.687612208	-0.663025	0.22	0.35
Clinton Valley Elementary School	0.443786982	-0.088866667	0.43	0.35
Thelma Buffey Elementary School	0.612903226	-0.49535	0.28	0.35
East Jordan High School	0.43019943	-0.067084	0.44	0.35
Carman-Ainsworth High School	0.576771654	-0.411276	0.31	0.35
Bay City Central High School	0.483801296	-0.1947	0.39	0.35
Manistee Middle School	0.494623656	-0.221825	0.38	0.35
Cherry Knoll Elementary School	0.504	-0.2448	0.37	0.35
Comstock High School	0.583468395	-0.423174	0.3	0.35
Ross Beatty High School	0.558490566	-0.37057	0.32	0.35
Coloma Elementary School	0.568123393	-0.3912	0.31	0.35
Waterford Village Elementary School	0.510471204	-0.255666667	0.36	0.35
Communication and Media Arts HS	0.541666667	-0.330552	0.33	0.35
Edgewood Elementary School	0.966777409	-1.391166667	0.06	0.34
Kosciuszko School	0.925641026	-1.299525	0.08	0.34
Ben Ross Public School Academy	0.922857143	-1.279525	0.08	0.34
Bryant Elementary School	0.893842887	-1.2133	0.1	0.34
Sorter Elementary School	0.846889952	-1.0947	0.12	0.34
West Bloomfield High School	0.196390658	0.443618	0.69	0.34
Henry Ford II High School	0.183693046	0.47717	0.7	0.34
Laingsburg High School	0.171693735	0.506024	0.71	0.34
Bay City Western High School	0.222222222	0.385018	0.66	0.34
Ernest W. Seaholm High School	0.058915947	0.750476	0.8	0.34

Top to Bottom Ranking 125

Oakbrook Elementary School	0.270992366	0.2718	0.61	0.34
Hoover Elementary School	0.78515625	-0.9316	0.15	0.34
Grand Blanc Academy	0.772616137	-0.9057	0.16	0.34
Norup International School	0.349936143	0.11	0.53	0.34
Leonard Elementary School	0.335820896	0.125433333	0.54	0.34
Whitehall Senior High School	0.358231707	0.09059	0.52	0.34
Prairie Elementary School	0.753787879	-0.8642	0.17	0.34
Wick Elementary School	0.739952719	-0.8301	0.18	0.34
Memphis Junior High School	0.394849785	0.001475	0.48	0.34
Sherman Middle School	0.392326733	0.01875	0.48	0.34
Tri County Senior High School	0.402797203	-0.01079	0.47	0.34
Garden City High School	0.391065292	0.00182	0.48	0.34
L'Anse High School	0.412698413	-0.034502	0.46	0.34
Brooks Elementary School	0.398791541	-0.002633333	0.47	0.34
Bedford School	0.671186441	-0.646066667	0.23	0.34
Ferndale Middle School	0.661728395	-0.63705	0.23	0.34
Grogan Elementary School	0.536231884	-0.3275	0.34	0.34
Michigamme Elementary School	0.432967033	-0.077	0.43	0.34
Three Rivers High School	0.477419355	-0.187016	0.39	0.34
Allen Elementary School	0.5	-0.245666667	0.37	0.34
Interlochen Elementary School	0.613970588	-0.5078	0.27	0.34
Mason Middle School	0.476040848	-0.187975	0.39	0.34
Cherry Street Intermediate School	0.612149533	-0.512533333	0.27	0.34
Newberry Elementary School	0.566371681	-0.402	0.31	0.34
Riverside School	0.553846154	-0.3671	0.32	0.34
Central Elementary School	0.484320557	-0.20645	0.38	0.34
Sandusky Middle School	0.516819572	-0.2926	0.35	0.34
Anna M. Thurston Middle School	0.48046875	-0.20395	0.38	0.34
Reeths-Puffer Elementary School	0.513157895	-0.2727	0.35	0.34
Oakland International Academy - Elementary	0.995594714	-1.48985	0.05	0.33
Brookside School	0.952380952	-1.3768	0.07	0.33
Center Academy	0.949799197	-1.379375	0.07	0.33
Kent Hills School	0.917948718	-1.294833333	0.08	0.33
Walled Lake Northern High School	0.140459913	0.562716	0.74	0.33
Anchor Bay Middle School North	0.215135135	0.391	0.67	0.33
Stevenson High School	0.111378978	0.629588	0.76	0.33
Tecumseh High School	0.14379085	0.552352	0.73	0.33
Huron High School	0.229638702	0.358456	0.65	0.33
Churchill High School	0.21707444	0.3713	0.66	0.33
Baker Middle School	0.237430168	0.34405	0.64	0.33
Willow Ridge Elementary School	0.231800766	0.340833333	0.64	0.33
Pine Knob Elementary School	0.298850575	0.2038	0.58	0.33
Pinecrest School	0.274509804	0.246033333	0.6	0.33

Top to Bottom Ranking 126

Bridgeport-Spaulding Middle School-Schrah	0.809139785	-1.0088	0.13	0.33
New Groningen School	0.248677249	0.303633333	0.62	0.33
Charlotte Senior High School	0.324205915	0.141874	0.55	0.33
St. Johns Middle School	0.328205128	0.138425	0.54	0.33
Northside Elementary School	0.34496124	0.092766667	0.52	0.33
East Elementary School	0.742647059	-0.844666667	0.17	0.33
Menominee High School	0.363157895	0.049794	0.5	0.33
Onekama Elementary School	0.413612565	-0.05105	0.45	0.33
Wolfe Middle School	0.660550459	-0.644325	0.23	0.33
Three Rivers Middle School	0.56427379	-0.411475	0.31	0.33
Koepsell Education Center	0.484304933	-0.219733333	0.38	0.33
Pennfield Dunlap Elementary	0.449771689	-0.135533333	0.41	0.33
Meridian Elementary School	0.481765835	-0.2174	0.38	0.33
Whitehall Ealy Elem. School	0.428884026	-0.0947	0.42	0.33
Hart High School	0.54084507	-0.350872	0.32	0.33
Long Elementary School	0.528571429	-0.33655	0.33	0.33
Detroit School of Arts East - Duke Ellington Campus	0.851024209	-1.1369	0.11	0.32
Greenfield Elementary School	0.175977654	0.457766667	0.7	0.32
Beck Centennial Elem. School	0.128284389	0.558633333	0.74	0.32
Hoben Elementary School	0.203354298	0.391	0.67	0.32
West Bendle Elementary School	0.828571429	-1.079933333	0.12	0.32
Grosse Ile Middle School	0.087248322	0.662	0.77	0.32
Grass Lake High School	0.206896552	0.381124	0.66	0.32
Rogers School	0.809917355	-1.039466667	0.13	0.32
Vicksburg High School	0.282451923	0.219948	0.59	0.32
Dean A. Naldrett School	0.236111111	0.31915	0.63	0.32
North Saginaw Charter Academy	0.805019305	-1.028	0.13	0.32
Western High School	0.2887078	0.200696	0.58	0.32
Eppler Junior High School	0.298245614	0.1745	0.57	0.32
Highlander Way Middle School	0.297468354	0.179925	0.57	0.32
Pewamo Elementary School	0.262910798	0.2527	0.6	0.32
Wagar Junior High School ***	0.769230769	-0.940025	0.15	0.32
Washington Elementary School	0.321348315	0.129933333	0.54	0.32
Western Middle School	0.309907834	0.147575	0.55	0.32
Sixth Grade Academy	0.72991453	-0.8299	0.18	0.32
Douglas Elementary School	0.329177057	0.1131	0.53	0.32
Hastings High School	0.328107503	0.113548	0.53	0.32
Jack Harvey Elementary School	0.361702128	0.045633333	0.5	0.32
Corunna High School	0.360969388	0.04521	0.5	0.32
Cleveland Elementary School	0.371937639	0.025533333	0.49	0.32
Clintondale High School	0.747303544	-0.88209	0.16	0.32
Fitzgerald Senior High School	0.724003887	-0.81233	0.18	0.32
Hughes Elementary School	0.347222222	0.064366667	0.51	0.32

Top to Bottom Ranking 127

Northeast Middle School	0.708860759	-0.7868	0.19	0.32
Simonds Elementary School	0.387543253	-0.0101	0.47	0.32
Perry Middle School	0.412073491	-0.07195	0.44	0.32
Harwood Elementary School	0.660759494	-0.657866667	0.22	0.32
Ubly Community High School	0.466666667	-0.188664	0.39	0.32
Michigan Center Jr/Sr High School	0.477134146	-0.21394	0.38	0.32
Dimondale Elementary School	0.385185185	-0.0141	0.46	0.32
Cedar Springs Middle School	0.430735931	-0.113925	0.42	0.32
Fisher Elementary School	0.521252796	-0.323366667	0.34	0.32
Southfield High School	0.578070175	-0.463852	0.29	0.32
Posen Elementary School	0.645833333	-0.62365	0.23	0.32
Big Rapids High School	0.41775837	-0.08337	0.43	0.32
Parchment Central Elem. School	0.461538462	-0.19235	0.39	0.32
Jefferson Elementary School ***	0.529411765	-0.3398	0.33	0.32
Marcellus Middle School	0.562992126	-0.434275	0.3	0.32
Reo School	0.961038961	-1.4356	0.06	0.31
Scott School	0.929133858	-1.3433	0.07	0.31
Pulaski Elementary School	0.923701299	-1.334675	0.07	0.31
Glazer Elementary School	0.868085106	-1.198	0.1	0.31
Novi High School	0.081268583	0.638934	0.77	0.31
Arborwood Elementary School ***	0.818181818	-1.0762	0.12	0.31
Sugarbush Elementary School	0.198653199	0.373633333	0.66	0.31
Warner Upper Elementary School	0.186363636	0.399766667	0.67	0.31
Byron Center Charter School	0.276150628	0.2189	0.59	0.31
Anderson Middle School	0.229617304	0.317625	0.63	0.31
Parsons Elementary School	0.277777778	0.205733333	0.58	0.31
Soo Hill Elementary School	0.276752768	0.2055	0.58	0.31
Indian Hills Elementary School	0.251386322	0.264	0.6	0.31
Hazel Park Junior High School	0.763456091	-0.93905	0.15	0.31
Marine City High School	0.294605809	0.167572	0.56	0.31
Lowell Middle School	0.311111111	0.13775	0.54	0.31
Swan Valley Middle School	0.344110855	0.065475	0.51	0.31
Polk Elementary School	0.690544413	-0.762066667	0.2	0.31
Donald J. Yacks Elem. School	0.369863014	0.004033333	0.48	0.31
Algonquin Middle School	0.376511226	-0.0046	0.47	0.31
Brandon Middle School	0.375	-0.010375	0.47	0.31
Paragon Charter Academy	0.546242775	-0.41235	0.31	0.31
Genesee High School	0.589569161	-0.50642	0.27	0.31
Roscommon High School	0.51984127	-0.33283	0.33	0.31
Woodview Elementary School	0.58583691	-0.501166667	0.27	0.31
Marie C. Graham Elem. School	0.527093596	-0.349666667	0.32	0.31
Lakeview Elementary School	0.5725	-0.474	0.28	0.31
Dickinson West Elementary School	0.893528184	-1.292033333	0.08	0.3

Top to Bottom Ranking 128

Stewart Elementary School	0.872987478	-1.242375	0.09	0.3
Aberdeen Elementary	0.857142857	-1.18225	0.1	0.3
Beach Middle School	0.141414141	0.49315	0.71	0.3
Blanchette Middle School	0.80876494	-1.06925	0.12	0.3
Manchester Middle School	0.2	0.3619	0.65	0.3
Muskegon High School	0.79	-1.035174	0.13	0.3
Avondale Middle School	0.282853567	0.1808	0.57	0.3
Lincoln Elementary School ***	0.75	-0.918933333	0.16	0.3
Mason Middle School	0.269727403	0.1986	0.58	0.3
Walden Green Montessori	0.256880734	0.227133333	0.59	0.3
Charles A. Lindbergh Elementary School	0.267062315	0.216066667	0.58	0.3
Fife Lake Elementary School	0.729166667	-0.8659	0.17	0.3
Atherton High School	0.707070707	-0.822952	0.18	0.3
Wexford Montessori Magnet School	0.676557864	-0.7409	0.2	0.3
Washington Elementary School	0.648083624	-0.6703	0.22	0.3
Ravenna Middle School	0.464396285	-0.2217	0.38	0.3
Parchment Middle School	0.565683646	-0.46565	0.29	0.3
Roseville High School	0.630694143	-0.622784	0.23	0.3
Gladwin Junior High School	0.584686775	-0.520525	0.27	0.3
Christa McAuliffe Middle School	0.516183986	-0.346075	0.33	0.3
Summit Academy North High School	0.42364532	-0.135868	0.41	0.3
L'Anse Creuse Middle School - South	0.46819788	-0.24385	0.37	0.3
John Glenn High School	0.490196078	-0.275845	0.35	0.3
John D. Pierce Middle School	0.569313594	-0.484625	0.28	0.3
Lawrence Jr/Sr High School	0.466463415	-0.23331	0.37	0.3
Shaftsbury Elementary Perry West Campus	0.489051095	-0.273266667	0.35	0.3
Neinas Elementary School	0.982142857	-1.537666667	0.04	0.29
McKinley Foundation	0.902803738	-1.33245	0.08	0.29
Nolan Elementary School	0.875838926	-1.263825	0.09	0.29
Cavanaugh School	0.83805668	-1.17475	0.1	0.29
Green Elementary School	0.179047619	0.388333333	0.67	0.29
Mt. Morris Junior High School	0.785862786	-1.03695	0.13	0.29
Freeland Middle School/High School	0.192532089	0.35706	0.65	0.29
Oak Park Preparatory Academy	0.793650794	-1.055866667	0.12	0.29
Roosevelt Elementary School	0.176781003	0.377666667	0.66	0.29
Howell High School	0.221599402	0.299846	0.62	0.29
Rawsonville Elementary School	0.778588808	-1.023066667	0.13	0.29
Hanover-Horton High School	0.242424242	0.258428	0.6	0.29
Orville C. Krause Later Elementary School	0.22737819	0.273966667	0.61	0.29
Bemis Junior High School	0.233654877	0.269125	0.6	0.29
Fiegel Elementary School	0.312328767	0.1017	0.52	0.29
Walnut Hills Elementary School	0.71024735	-0.848266667	0.17	0.29
Fremont High School	0.350274725	0.017852	0.48	0.29



Top to Bottom Ranking 129

Portage North Middle School	0.360790774	-0.002225	0.47	0.29
Vestaburg Community Elem. School	0.667673716	-0.740766667	0.2	0.29
Coopersville South Elementary School	0.389413989	-0.072333333	0.44	0.29
Greenville Senior High School	0.399145299	-0.085316	0.43	0.29
Marshall Greene Middle School	0.431472081	-0.163425	0.4	0.29
Allegan High School	0.374384236	-0.046738	0.45	0.29
Pottersville Middle School	0.406360424	-0.09755	0.42	0.29
Belleville High School	0.381278539	-0.059102	0.44	0.29
Edgewood Elementary School	0.551724138	-0.456833333	0.29	0.29
Beal City Elementary School	0.437299035	-0.1737	0.39	0.29
Northwest Elementary School	0.516891892	-0.370066667	0.32	0.29
Charlotte Middle School	0.39135255	-0.07535	0.43	0.29
Martin High School	0.573333333	-0.50385	0.27	0.29
Big Rapids Middle School	0.538033395	-0.42235	0.3	0.29
Green Acres Elementary School	0.501953125	-0.328833333	0.33	0.29
Beer Middle School	0.558546433	-0.469075	0.28	0.29
Woodrow Wilson Elementary School	0.904276986	-1.360133333	0.07	0.28
Herig School	0.902017291	-1.350166667	0.07	0.28
Woods Lake Elementary:A Magnet Center For The Arts	0.840425532	-1.1875	0.1	0.28
Academy for Business and Technology High School	0.834688347	-1.18004	0.1	0.28
Eisenhower High School	0.074074074	0.594478	0.75	0.28
Clarkston High School	0.142482975	0.448924	0.69	0.28
Northwestern High School	0.77690583	-1.026984	0.13	0.28
Herrick Park Elementary School	0.171548117	0.3808	0.66	0.28
Hartland M.S. at Ore Creek	0.159242762	0.402475	0.67	0.28
Crissman Elementary School	0.1109375	0.4928	0.71	0.28
Bedford Senior High School	0.200732154	0.32206	0.63	0.28
Woodland Elementary School	0.734177215	-0.923466667	0.16	0.28
Berkley High School	0.218435321	0.281004	0.61	0.28
Pathfinder School	0.180535966	0.3513	0.64	0.28
Boyd W. Arthurs Middle School	0.235735736	0.243075	0.59	0.28
Fordson High School	0.710960643	-0.86816	0.17	0.28
Marion High School	0.684615385	-0.79444	0.19	0.28
Donelson Hills Elementary School	0.680898876	-0.779533333	0.19	0.28
Bath High School	0.300613497	0.099342	0.52	0.28
Fraser High School	0.37098692	-0.037774	0.45	0.28
Coleman Elementary School	0.540201005	-0.442766667	0.3	0.28
Concord High School	0.413533835	-0.138638	0.41	0.28
Three Oaks Elementary School	0.595375723	-0.572	0.25	0.28
Alfred E. Upton Elementary School	0.457534247	-0.2381	0.37	0.28
Mid Peninsula School	0.558951965	-0.4864	0.28	0.28
Kearsley High School	0.387330317	-0.07867	0.43	0.28
Woodrow Wilson School	0.523858921	-0.404425	0.31	0.28

Top to Bottom Ranking 130

Fremont Middle School	0.466800805	-0.26575	0.36	0.28
Galewood Elementary School	0.497487437	-0.337833333	0.33	0.28
Inland Lakes High School	0.46300716	-0.248456	0.36	0.28
Standish Elementary School	0.587336245	-0.555933333	0.25	0.28
Deckerville Community High School	0.586319218	-0.55752	0.25	0.28
Beaverton Middle School	0.562831858	-0.5013	0.27	0.28
LakeVille Middle School	0.515151515	-0.3874	0.31	0.28
Eisenhower Elementary School	1	-1.627933333	0.03	0.27
McKinley Elementary School	0.961111111	-1.526333333	0.04	0.27
Wayne Elementary School	0.884615385	-1.3324	0.08	0.27
Conner Creek Academy East - Elementary	0.887661142	-1.3426	0.07	0.27
Grand Rapids University Preparatory Academy	0.868852459	-1.290233333	0.08	0.27
Taft-Galloway Elementary School	0.82697201	-1.170833333	0.1	0.27
Gaudior Academy	0.811715481	-1.129075	0.11	0.27
Randolph Elementary School	0.140186916	0.412033333	0.68	0.27
Morgan Elementary School	0.135225376	0.4204	0.68	0.27
Chatfield School	0.189497717	0.308275	0.63	0.27
Heritage Junior High School	0.265500795	0.165375	0.56	0.27
Romeo High School	0.204643629	0.285298	0.61	0.27
Akron-Fairgrove Elem. School	0.701388889	-0.86185	0.17	0.27
Alaiedon Elementary School	0.278074866	0.1244	0.54	0.27
John R. Kment Elementary School	0.699769053	-0.8592	0.17	0.27
Mary D. Mitchell School	0.688212928	-0.8311	0.18	0.27
Linden Middle School	0.276056338	0.135475	0.54	0.27
Harper Creek High School	0.286830357	0.112218	0.53	0.27
Midway Elementary School	0.326219512	0.026333333	0.49	0.27
Hanover-Horton Middle School	0.324921136	0.043325	0.49	0.27
Clare High School	0.334090909	0.014792	0.48	0.27
Amanda Moore Elementary School	0.350348028	-0.029433333	0.46	0.27
Port Huron Northern High School	0.349388929	-0.018612	0.46	0.27
Durand Middle School	0.517857143	-0.404766667	0.31	0.27
Jennings Elementary School	0.539888683	-0.450966667	0.29	0.27
Armstrong Middle School	0.471306471	-0.294225	0.35	0.27
Adrian Middle School 7/8 Building	0.595698925	-0.58735	0.24	0.27
Port Huron High School	0.526588846	-0.428066	0.3	0.27
Brandywine Middle School	0.560386473	-0.506275	0.27	0.27
Michigan School for the Deaf ***	0.4	-0.1414	0.41	0.27
Harper Creek Middle School	0.387964149	-0.1138	0.42	0.27
Clawson High School	0.398613518	-0.137206	0.41	0.27
Bridgman Elementary School	0.421052632	-0.189566667	0.39	0.27
Charlevoix Elementary School	0.443181818	-0.227733333	0.37	0.27
Holbrook School	0.965665236	-1.551366667	0.04	0.26
Bunche School	0.941176471	-1.4934	0.05	0.26

Top to Bottom Ranking 131

Morton Elementary School	0.923954373	-1.447833333	0.05	0.26
Baylor Woodson Elementary School	0.839928058	-1.2206	0.09	0.26
Hunt Elementary School	0.772643253	-1.0644	0.12	0.26
Woodland School	0.14	0.393166667	0.67	0.26
Kelly Middle School	0.719083969	-0.9246	0.16	0.26
Will Carleton Charter School Academy	0.14379085	0.382275	0.66	0.26
Roseville Middle School	0.702166065	-0.87445	0.17	0.26
Whiteford High School	0.188284519	0.295824	0.62	0.26
Williamston Explorer Elementary School	0.210958904	0.244633333	0.6	0.26
Oaktree Elementary School	0.198237885	0.274833333	0.61	0.26
Flushing High School	0.270394737	0.122828	0.54	0.26
Patterson Elementary School	0.211864407	0.2392	0.59	0.26
George Washington Academy	0.642140468	-0.724233333	0.21	0.26
Blissfield High School	0.276712329	0.114138	0.53	0.26
Napoleon High School	0.321428571	0.020634	0.48	0.26
Allen Park Middle School	0.343502825	-0.0195	0.46	0.26
Arnold Elementary School	0.525835866	-0.4406	0.3	0.26
Pierce Middle School	0.394876325	-0.139825	0.41	0.26
Jefferson High School ***	0.428571429	-0.212134	0.38	0.26
Algonac High School	0.360060514	-0.065598	0.44	0.26
King-Westwood Elementary School	0.473786408	-0.313766667	0.34	0.26
South Middle School	0.507142857	-0.40685	0.31	0.26
Henry Ford Academy	0.564102564	-0.532898	0.26	0.26
Owasso Middle School	0.584487535	-0.5863	0.24	0.26
Warren Woods Middle School	0.525786164	-0.446325	0.29	0.26
George E. Greene Elem. School	0.480144404	-0.335	0.33	0.26
Moon Elementary School	0.962365591	-1.574366667	0.04	0.25
Bunker Middle School	0.893103448	-1.38425	0.07	0.25
Carrollton Elementary School	0.771428571	-1.062	0.12	0.25
Patrick Hamilton Elementary	0.754658385	-1.0204	0.13	0.25
DeWitt High School	0.111455108	0.439772	0.69	0.25
Seneca Middle School	0.214968153	0.220825	0.59	0.25
North Elementary School	0.688888889	-0.8547	0.17	0.25
Bridgeport High School	0.700205339	-0.879506	0.16	0.25
Renaissance Public School Academy	0.651515152	-0.767575	0.2	0.25
Goodrich High School	0.148849797	0.347576	0.64	0.25
Woodland Park Academy	0.649082569	-0.7704	0.2	0.25
Waterloo School	0.669144981	-0.80195	0.18	0.25
Buchanan Elementary School	0.178733032	0.284166667	0.61	0.25
Kingston High School	0.310954064	0.02854	0.49	0.25
New Branches School	0.627659574	-0.71145	0.21	0.25
Burt Elementary School	0.626598465	-0.700633333	0.21	0.25
Jefferson Middle School	0.409681228	-0.193825	0.39	0.25

Top to Bottom Ranking 132

Cromie Elementary School	0.396369138	-0.1644	0.4	0.25
Beaumont Elementary School	0.519512195	-0.446733333	0.29	0.25
J.A. Lanigan Elementary School	0.386639676	-0.1465	0.4	0.25
Ricker Middle School	0.985185185	-1.6641	0.03	0.24
C.C. Coulter Elementary School	0.946666667	-1.54535	0.04	0.24
Jerome School	0.920792079	-1.4866	0.05	0.24
Ken-O-Sha Park School	0.904494382	-1.4373	0.06	0.24
Webster Elementary School	0.888888889	-1.401433333	0.06	0.24
David Hicks School	0.828644501	-1.233733333	0.09	0.24
Dr. Joseph F. Pollack Academic Center of Excellence	0.82260184	-1.21915	0.09	0.24
Schulze Elementary School	0.79296875	-1.146775	0.11	0.24
Roosevelt/McGrath Elem. School	0.784	-1.119325	0.11	0.24
Mohawk Elementary School	0.122866894	0.387166667	0.67	0.24
Hillside Elementary School	0.704180064	-0.914933333	0.16	0.24
Garfield Elementary School	0.7125	-0.9332	0.15	0.24
Goodrich Middle School	0.158671587	0.309675	0.63	0.24
East Middle School	0.166449935	0.304075	0.62	0.24
Zeeland East High School	0.179271709	0.261592	0.6	0.24
Dakota High School	0.167526796	0.28435	0.61	0.24
Almont High School	0.246935201	0.12979	0.54	0.24
Anchor Bay High School	0.23315508	0.153816	0.55	0.24
Field Elementary School	0.241622575	0.139966667	0.54	0.24
MacDonald Middle School	0.278095238	0.05905	0.5	0.24
Ionia High School	0.4375	-0.267486	0.36	0.24
Indian Woods Elementary School	0.342391304	-0.068733333	0.44	0.24
Clayton H. Symons Elementary School	0.374771481	-0.124733333	0.41	0.24
Thomas Simpson Middle School	0.554524362	-0.549675	0.25	0.24
Whitehall Middle School	0.394067797	-0.18305	0.39	0.24
Harker Middle School	0.359848485	-0.106625	0.42	0.24
Monroe Elementary School	0.496221662	-0.418066667	0.3	0.24
Coloma Middle School	0.518617021	-0.4713	0.28	0.24
Lake Linden-Hubbell High School	0.426829268	-0.255215	0.36	0.24
Priest Elementary School	0.921022067	-1.49395	0.05	0.23
Dailey Elementary School	0.869469027	-1.373233333	0.07	0.23
Detroit Academy of Arts and Sciences Middle School	0.863849765	-1.35585	0.07	0.23
Springfield Middle School	0.716216216	-0.959725	0.15	0.23
Pierce School	0.698795181	-0.9269	0.16	0.23
Hoover Elementary School	0.705329154	-0.9277	0.15	0.23
Mayville Elementary School	0.640350877	-0.770733333	0.2	0.23
New Lothrop High School	0.201149425	0.20642	0.58	0.23
Troy Union Elementary School	0.210643016	0.1772	0.57	0.23
Townsend Elementary School	0.620981387	-0.721366667	0.21	0.23
Delta Center Elementary School	0.221640489	0.153866667	0.56	0.23

Top to Bottom Ranking 133

Leon W. Hayes Middle School	0.230769231	0.147875	0.55	0.23
Flynn Middle School	0.640944882	-0.7809	0.19	0.23
Kimball Elementary School	0.617886179	-0.719566667	0.21	0.23
Athens High School	0.149913843	0.29229	0.62	0.23
Holton Middle School	0.63876652	-0.77505	0.19	0.23
North Creek Elementary School	0.102725367	0.3865	0.66	0.23
John F. Kennedy School	0.286729858	0.025866667	0.49	0.23
Ewen-Trout Creek Consolidated School	0.592436975	-0.6617	0.22	0.23
Seitz Middle School	0.404423381	-0.22165	0.38	0.23
Carrie Knause Early Childhood Learning Center	0.540540541	-0.5296	0.26	0.23
Webberville High School	0.436548223	-0.28505	0.35	0.23
Adrian High School	0.538865546	-0.52687	0.26	0.23
Emma Smith Elementary School	0.412979351	-0.2358	0.37	0.23
Greenwood Elementary School	0.401337793	-0.210833333	0.38	0.23
Mason Senior High School	0.446511628	-0.308682	0.34	0.23
Summerfield Elementary School ***	0.423076923	-0.250666667	0.36	0.23
Hanover-Horton Elementary School	0.34264432	-0.092333333	0.43	0.23
Princeton Elementary School	0.421052632	-0.2496	0.36	0.23
Cousino Senior High School	0.329688354	-0.068514	0.44	0.23
Paw Paw Early Elementary School	0.397565923	-0.2111	0.38	0.23
LaSalle High School	0.442982456	-0.301308	0.34	0.23
Smith Middle School	0.419928826	-0.24705	0.36	0.23
Jefferson Elementary School	0.452380952	-0.3398	0.33	0.23
Thomas Jefferson Elem. School	0.451724138	-0.3347	0.33	0.23
Creekside Middle School	0.34422658	-0.094475	0.42	0.23
Lincoln International Studies School	0.960365854	-1.620933333	0.04	0.22
Beecher Middle School Academy	0.884792627	-1.418575	0.06	0.22
W.K. Kellogg Middle School	0.802105263	-1.201475	0.1	0.22
Northeast Elementary School	0.790734824	-1.1754	0.1	0.22
Wolverine Elementary School	0.752747253	-1.0815	0.12	0.22
Memorial School	0.685230024	-0.910633333	0.16	0.22
Stuckey Elementary School	0.682191781	-0.8971	0.16	0.22
Rogers High School	0.637647059	-0.798672	0.19	0.22
Bulman School	0.646341463	-0.812233333	0.18	0.22
Eau Claire High School	0.64	-0.801176	0.18	0.22
Surline Elementary School	0.582236842	-0.657666667	0.23	0.22
Albert Schweitzer Elementary School	0.604651163	-0.709333333	0.21	0.22
Lindemann Elementary School	0.237347295	0.115166667	0.53	0.22
Schavey Road Elementary School	0.123076923	0.3168	0.63	0.22
Center Line High School	0.584615385	-0.662564	0.22	0.22
Union City High School	0.502906977	-0.465478	0.29	0.22
Fulton High School	0.295964126	-0.007956	0.47	0.22
George Long Elementary School	0.249560633	0.0778	0.51	0.22

Top to Bottom Ranking 134

Waterford Kettering High School	0.328641371	-0.068438	0.44	0.22
Legg Middle School	0.488	-0.4327	0.3	0.22
Windemere Park Charter Academy	0.530769231	-0.535425	0.26	0.22
Western Middle School	0.40311174	-0.23265	0.37	0.22
Caro Middle School	0.523917995	-0.52065	0.26	0.22
Menominee Jr High School	0.409836066	-0.262025	0.36	0.22
Carpenter Road School	0.953405018	-1.62145	0.04	0.21
Phoenix Elementary	0.960465116	-1.6342	0.03	0.21
Brunkow Elementary School	0.954545455	-1.624533333	0.03	0.21
Cleveland Elementary School	0.940639269	-1.5911	0.04	0.21
Holmes, A.L. Elementary School	0.920930233	-1.537925	0.04	0.21
Howe Elementary School	0.908284024	-1.510933333	0.05	0.21
Rutherford Elementary School	0.88150289	-1.435	0.06	0.21
Willow Run Middle School	0.818181818	-1.268575	0.08	0.21
Elwell Elementary School	0.7265625	-1.0411	0.13	0.21
Holland Woods Middle School	0.705024311	-0.97985	0.14	0.21
Seminole Academy	0.704761905	-0.979833333	0.14	0.21
Robert J. West Middle School	0.651718984	-0.83785	0.18	0.21
Fuller Street Elementary School	0.631436314	-0.7993	0.18	0.21
Armada Middle School	0.196280992	0.1732	0.56	0.21
Bellevue Elementary School	0.582582583	-0.686266667	0.22	0.21
Hillside Elementary School	0.187272727	0.16	0.56	0.21
Charles A. Poupard Elem. School	0.502906977	-0.493866667	0.28	0.21
Stephenson High School	0.433179724	-0.322874	0.34	0.21
Galesburg-Augusta Primary School	0.501014199	-0.47545	0.28	0.21
Harrison High School	0.283127572	0.000864	0.47	0.21
Reeths-Puffer High School	0.39544345	-0.242002	0.37	0.21
Cheboygan Area High School	0.543448276	-0.589424	0.24	0.21
Michigan School for the Deaf ***	0.348837209	-0.1414	0.41	0.21
Otsego Middle School	0.345703125	-0.136725	0.41	0.21
Wilde Elementary School	0.366995074	-0.1904	0.39	0.21
Oakland Elementary School	0.355345912	-0.170566667	0.4	0.21
Dryden High School	0.286516854	-0.01583	0.46	0.21
Will L. Lee School	0.297297297	-0.0515	0.45	0.21
Leslie Middle School	0.374712644	-0.2011	0.38	0.21
William D. Miller Elem. School	0.362683438	-0.173033333	0.39	0.21
Wegienka Elementary School	0.33915212	-0.133766667	0.41	0.21
Nelson Elementary School	0.980842912	-1.712233333	0.03	0.2
Washington Writers' Academy	0.976190476	-1.701333333	0.03	0.2
Alger Middle School	0.938005391	-1.60415	0.04	0.2
Hull Middle School	0.931558935	-1.5909	0.04	0.2
Longfellow School	0.929648241	-1.585266667	0.04	0.2
United Oaks Elementary School	0.84548105	-1.353233333	0.07	0.2

Top to Bottom Ranking 135

Conner Creek Academy East-MI Collegiate Middle	0.828571429	-1.3068	0.08	0.2
Daly School	0.796791444	-1.2233	0.09	0.2
Cumberland School	0.759868421	-1.128733333	0.11	0.2
Hoover Middle School	0.738675958	-1.0787	0.12	0.2
Alpine Elementary School	0.726224784	-1.0442	0.13	0.2
Shawmut Hills School	0.720689655	-1.038933333	0.13	0.2
Newhall Middle School	0.648367953	-0.84725	0.17	0.2
Post Oak School	0.645299145	-0.840133333	0.17	0.2
Bangor Lincoln School	0.619760479	-0.7865	0.19	0.2
Ontonagon Area Elementary School	0.593406593	-0.721033333	0.21	0.2
Kalamazoo Central High School	0.589179548	-0.725592	0.21	0.2
Litchfield Elementary School	0.589147287	-0.70755	0.21	0.2
Jackson High School	0.583061889	-0.69997	0.21	0.2
Haisley Elementary School	0.237410072	0.063466667	0.51	0.2
Loren Eyler Elementary School	0.53314121	-0.5721	0.25	0.2
Frost Middle School	0.234244946	0.07375	0.51	0.2
Kate Dowdall Elementary School	0.492537313	-0.488366667	0.28	0.2
East Jackson Middle School	0.549019608	-0.626775	0.23	0.2
Cityside Middle School	0.263225806	0.0173	0.48	0.2
Wildwood Elementary School	0.513651877	-0.5373	0.26	0.2
Lincoln Middle School	0.455882353	-0.411825	0.31	0.2
Merrill Middle School	0.406976744	-0.2884	0.35	0.2
Utica High School	0.246624023	0.03376	0.49	0.2
Minges Brook School	0.449275362	-0.390666667	0.31	0.2
White Pine Middle School	0.402933563	-0.281425	0.35	0.2
Michigan School for the Deaf ***	0.333333333	-0.1414	0.41	0.2
Southgate Anderson High School	0.343859649	-0.150928	0.4	0.2
East Grand Rapids High School	0.092454835	0.30209	0.62	0.2
Elk Rapids High School	0.29753915	-0.058156	0.44	0.2
Riverview Community High School	0.217161017	0.084754	0.51	0.2
Portland Middle School	0.330415755	-0.118175	0.41	0.2
Pinckney Elementary School	0.318181818	-0.1014	0.42	0.2
Alma Senior High School	0.395604396	-0.2763	0.35	0.2
Carl T. Renton Jr. High School	0.292763158	-0.06155	0.44	0.2
Congress Elementary	0.961206897	-1.69135	0.03	0.19
Academy of Flint	0.957328386	-1.673275	0.03	0.19
Creston High School	0.849315068	-1.380962	0.07	0.19
Brown, Ronald Academy	0.797597043	-1.2616	0.09	0.19
Milwood Elementary School	0.796039604	-1.2409	0.09	0.19
MacDowell Elementary School	0.787815126	-1.2287	0.09	0.19
Eugene B. Elliott Elem. School	0.748071979	-1.118766667	0.11	0.19
Woodside Elementary School	0.757407407	-1.154633333	0.1	0.19
Evert Elementary School	0.699745547	-1.005866667	0.14	0.19

Top to Bottom Ranking 136

Kendon School	0.69047619	-0.988166667	0.14	0.19
West Iron County Middle School	0.598591549	-0.75085	0.2	0.19
Endeavor Charter Academy	0.595839525	-0.747725	0.2	0.19
Challenger Elementary	0.584070796	-0.723933333	0.21	0.19
Monroe Middle School	0.539553753	-0.608975	0.24	0.19
Glenn W. Levey Middle School	0.572504708	-0.7027	0.21	0.19
Pittsfield School	0.488188976	-0.493966667	0.28	0.19
Edsel Ford High School	0.540502793	-0.621018	0.23	0.19
Manor Elementary School	0.447084233	-0.408666667	0.31	0.19
Tri County Middle School	0.443661972	-0.4045	0.31	0.19
Edgemont Elementary School	0.466037736	-0.446733333	0.29	0.19
L'Anse Creuse Middle School - Central	0.374120956	-0.240225	0.37	0.19
Knudsen Elementary School	0.488	-0.499333333	0.27	0.19
Elmwood Elementary School	0.50990099	-0.555766667	0.25	0.19
Paramount Charter Academy	0.417491749	-0.333975	0.33	0.19
Schwarzkoﬀ Elementary School	0.357784431	-0.2067	0.38	0.19
Morse Elementary School	0.243559719	0.0229	0.48	0.19
Avondale High School	0.242230347	0.006766	0.48	0.19
Chippewa Valley High School	0.284934956	-0.070428	0.44	0.19
Orchard Lake Middle School	0.257887517	-0.0139	0.46	0.19
Dort School	0.960187354	-1.69245	0.03	0.18
Washington School	0.885281385	-1.498566667	0.05	0.18
Mason Elementary School	0.879746835	-1.480066667	0.05	0.18
Hutchins Elementary School	0.856097561	-1.420225	0.06	0.18
Law Elementary School	0.835883171	-1.372825	0.07	0.18
Greenfield Union Elementary School	0.82718894	-1.360025	0.07	0.18
Burr Oak Elementary School	0.793269231	-1.26585	0.09	0.18
Ford Elementary School	0.803703704	-1.283933333	0.08	0.18
Airport Senior High School ***	0.681818182	-0.978726	0.14	0.18
Davis Elementary School	0.613569322	-0.805366667	0.18	0.18
East Jackson High School	0.461152882	-0.45448	0.29	0.18
Nowlin Elementary School	0.437125749	-0.407833333	0.31	0.18
Bath Elementary School	0.346491228	-0.222933333	0.38	0.18
Shumate Middle School	0.344224037	-0.21915	0.38	0.18
Pinckney Community High School	0.172343324	0.112984	0.53	0.18
Farley Hill Elementary School	0.238095238	0.000666667	0.47	0.18
Monroe High School	0.382533197	-0.299618	0.34	0.18
East Middle School	0.289558665	-0.11455	0.42	0.18
Lakeland Elementary School	0.207253886	0.0236	0.49	0.18
Mason High School	0.252862595	-0.041592	0.45	0.18
Franklin High School	0.28613396	-0.10748	0.42	0.18
Walled Lake Central High School	0.192244675	0.06191	0.5	0.18
King, John R. Academic and Performing Arts Academy	0.892473118	-1.542975	0.04	0.17



Top to Bottom Ranking 137

Nichols Elementary School	0.874331551	-1.4863	0.05	0.17
MacGregor Elementary School	0.842535787	-1.399866667	0.06	0.17
Dwight Rich Middle School	0.822262118	-1.36785	0.07	0.17
John F. Kennedy Elementary School	0.805732484	-1.331233333	0.08	0.17
Durfee Elementary School	0.798722045	-1.308225	0.08	0.17
Taylor Parks Elementary School	0.78243513	-1.2554	0.09	0.17
Frost Elementary School	0.77761194	-1.236733333	0.09	0.17
Rose City Elementary School	0.765060241	-1.22145	0.09	0.17
Earhart Middle School	0.693290735	-1.045425	0.13	0.17
Webb Elementary School	0.690026954	-1.0142	0.13	0.17
Harper Woods High School	0.672690763	-0.99578	0.14	0.17
South Elementary School	0.619883041	-0.86875	0.17	0.17
Rogers City Elementary School	0.581081081	-0.7664	0.2	0.17
Inland Lakes Elementary School	0.564210526	-0.712266667	0.21	0.17
Mayville Middle School	0.596938776	-0.8105	0.18	0.17
G.T. Norman Elementary School	0.573619632	-0.7511	0.2	0.17
Sterling Heights Senior H.S.	0.543537415	-0.683546	0.22	0.17
Parchment Northwood Elem. School	0.553846154	-0.697433333	0.21	0.17
Endeavour Middle School	0.540298507	-0.673525	0.22	0.17
Huron Academy	0.511406844	-0.610766667	0.24	0.17
Big Bay De Noc School	0.518367347	-0.6208	0.23	0.17
Berrien Springs High School	0.491319444	-0.559774	0.25	0.17
Perry East Elementary	0.408268734	-0.376933333	0.32	0.17
Haigh Elementary School	0.33974359	-0.224966667	0.38	0.17
Parkview Elementary School	0.380510441	-0.308966667	0.34	0.17
Whitmore Lake Elementary School	0.357647059	-0.253533333	0.36	0.17
Raisinville School	0.310722101	-0.1709	0.4	0.17
Negaunee Middle School	0.287128713	-0.1134	0.42	0.17
Pattengill School	0.3894081	-0.335366667	0.33	0.17
James R Geisler Middle School	0.307867731	-0.1721	0.4	0.17
Suttons Bay Senior High School	0.364089776	-0.28054	0.35	0.17
Birch Run High School	0.328836425	-0.22018	0.38	0.17
Iron Mountain High School	0.2578125	-0.068274	0.44	0.17
Dundee Elementary School	0.31147541	-0.1865	0.39	0.17
Adlai Stevenson High School	0.23903177	-0.04985	0.45	0.17
Maple Elementary School	0.258695652	-0.093033333	0.43	0.17
Laingsburg Middle School	0.223048327	-0.02065	0.46	0.17
North Farmington High School	0.141502553	0.122558	0.53	0.17
Beechview Elementary School	0.253561254	-0.0837	0.43	0.17
Summerfield Middle School	0.205357143	-0.0097	0.47	0.17
Farwell Middle School	0.910404624	-1.62175	0.04	0.16
Woodward School for Technology and Research	0.917737789	-1.622966667	0.03	0.16
Holmes Foundation	0.906103286	-1.61045	0.04	0.16

Top to Bottom Ranking 138

C.W. Otto Middle School	0.871972318	-1.509	0.05	0.16
White Elementary School	0.861904762	-1.480925	0.05	0.16
Trix Elementary School	0.853146853	-1.4495	0.05	0.16
Blackwell Institute	0.852348993	-1.454475	0.05	0.16
Crescentwood Elementary School	0.821333333	-1.385866667	0.07	0.16
Whitmer Resource Center	0.830734967	-1.388133333	0.06	0.16
Bunche Elementary School	0.830630631	-1.4048	0.06	0.16
M.L. King Jr. Academy	0.815498155	-1.36645	0.07	0.16
El Sol Elementary	0.781609195	-1.2692	0.08	0.16
Jemison, Mae C.	0.722338205	-1.120875	0.11	0.16
Arborwood Elementary School	0.699378882	-1.0762	0.12	0.16
Ypsilanti Middle School	0.664092664	-0.9967	0.14	0.16
Valley View Elementary School	0.660869565	-0.979866667	0.14	0.16
Emerald Elementary School	0.586419753	-0.810866667	0.18	0.16
Grant Elementary School	0.551312649	-0.7105	0.21	0.16
Lincoln Redner Elementary School	0.547709924	-0.7056	0.21	0.16
Northwestern Elementary School	0.513196481	-0.6355	0.23	0.16
Pennfield Middle School	0.481327801	-0.5655	0.25	0.16
Central Lake Public School	0.467191601	-0.52669	0.26	0.16
Southfield-Lathrup High School	0.448979592	-0.498014	0.27	0.16
Childs Elementary	0.368530021	-0.320066667	0.34	0.16
Fox Elementary School	0.37585034	-0.338166667	0.33	0.16
Fowlerville Junior High School	0.352507375	-0.28555	0.35	0.16
Portland High School	0.275914634	-0.133824	0.41	0.16
Milan High School	0.260696517	-0.113754	0.42	0.16
L'Anse Creuse High School - North	0.291794872	-0.172242	0.39	0.16
Onsted Community High School	0.240484429	-0.085838	0.43	0.16
Bruce Collins Elementary School	0.222527473	-0.0601	0.44	0.16
Ann Arbor Learning Community	0.107407407	0.075666667	0.51	0.16
Jefferson Middle School ***	0.090909091	0.081825	0.51	0.16
Timbuktu Academy of Science and Technology	0.974137931	-1.796025	0.02	0.15
McCord Elementary School	0.907749077	-1.63885	0.03	0.15
Bennett School	0.799043062	-1.3544	0.07	0.15
Dream Academy	0.782051282	-1.3006	0.08	0.15
Lincoln Park Middle School	0.731213873	-1.1893	0.1	0.15
Bradford Academy	0.716162943	-1.142077778	0.11	0.15
Zilwaukee K-8 School	0.691729323	-1.0794	0.12	0.15
Maple Street Magnet School for the Arts	0.661040788	-1.002875	0.14	0.15
Crestwood Middle School	0.657320872	-1.002075	0.14	0.15
Union City Elementary School	0.632794457	-0.927766667	0.15	0.15
Vassar Junior High School	0.571428571	-0.797425	0.19	0.15
Suttons Bay Elementary School	0.578571429	-0.810133333	0.18	0.15
Larsen Elementary School	0.555555556	-0.760466667	0.2	0.15

Top to Bottom Ranking 139

Maplewood School	0.565055762	-0.777466667	0.19	0.15
Holly Elementary School	0.535014006	-0.726933333	0.21	0.15
North Middle School	0.543154762	-0.742275	0.2	0.15
Brookside Elementary School	0.497630332	-0.6248	0.23	0.15
Lakeview High School	0.456913828	-0.542868	0.26	0.15
Coloma High School	0.432126697	-0.485564	0.28	0.15
Brown Elementary School	0.36146789	-0.331333333	0.33	0.15
Brownstown Middle School	0.358768407	-0.3463	0.33	0.15
Coldwater High School	0.381294964	-0.390092	0.31	0.15
Ealy Elementary School	0.291322314	-0.221133333	0.38	0.15
Bothwell Middle School	0.298368298	-0.232125	0.37	0.15
Lakeview High School	0.320726172	-0.28043	0.35	0.15
Reese High School	0.261111111	-0.162274	0.4	0.15
Marble School	0.169398907	-0.046933333	0.45	0.15
Green Meadow Elementary School	0.860119048	-1.5216	0.05	0.14
Barber Focus Sch of Math Sci Tec	0.775700935	-1.315575	0.08	0.14
West Elementary School	0.662131519	-1.0385	0.13	0.14
Earl F. Carr School	0.640625	-0.966133333	0.14	0.14
Reach Charter Academy	0.623824451	-0.9473	0.15	0.14
Truman High School	0.587349398	-0.842732	0.17	0.14
Prevail Academy	0.58692422	-0.84755	0.17	0.14
Siersma Elementary School	0.582230624	-0.859133333	0.17	0.14
Redford Union High School	0.551504102	-0.788554	0.19	0.14
Morrice Area Elementary School	0.496774194	-0.651666667	0.23	0.14
Garfield Elementary School	0.516483516	-0.707333333	0.21	0.14
Pinconning High School	0.445672192	-0.538264	0.26	0.14
Snow Elementary School	0.386920981	-0.4239	0.3	0.14
Coldwater High School ***	0.372881356	-0.390092	0.31	0.14
Lakeview High School	0.320485368	-0.281952	0.35	0.14
Zinser Elementary School	0.375838926	-0.418366667	0.3	0.14
Carter Middle School	0.363102233	-0.391575	0.31	0.14
Summerfield Elementary School	0.298102981	-0.250666667	0.36	0.14
Hemlock Middle School	0.294326241	-0.25155	0.36	0.14
Mildred C. Wells Preparatory Academy	0.968586387	-1.8498	0.02	0.13
Murphy Elementary-Middle School	0.860853432	-1.5502	0.04	0.13
Maple Lane School	0.855072464	-1.55205	0.04	0.13
Holmes Elementary School	0.814946619	-1.4324	0.06	0.13
Spring Valley Center for Exploration	0.802110818	-1.409533333	0.06	0.13
Academy of Lathrup Village	0.776859504	-1.34615	0.07	0.13
Western International High School	0.740146961	-1.262326	0.09	0.13
Crockett High School	0.735549133	-1.233158	0.09	0.13
Albion High School	0.71025641	-1.186672	0.1	0.13
H.D. Crull Elementary School	0.696498054	-1.140466667	0.11	0.13

Top to Bottom Ranking 140

Waldron Elementary School	0.688	-1.1171	0.11	0.13
Handy Middle School	0.666983825	-1.0828	0.12	0.13
Quincy Middle School ***	0.666666667	-1.089875	0.12	0.13
Grissom Middle School	0.616	-0.948375	0.15	0.13
Adlai Stevenson Middle School	0.525510204	-0.73115	0.2	0.13
North Pennfield Elementary	0.458333333	-0.58945	0.24	0.13
Manistique Middle and High School	0.460288809	-0.61915	0.23	0.13
Lakeville High School	0.401408451	-0.491324	0.28	0.13
North Dickinson School	0.375394322	-0.4398	0.3	0.13
Unionville-Sebewaing High School	0.32996633	-0.344756	0.33	0.13
Onkama Middle/High School	0.36199095	-0.42435	0.3	0.13
Gladstone Area High School	0.305389222	-0.304494	0.34	0.13
Jefferson High School	0.254985755	-0.212134	0.38	0.13
Armada High School	0.182621502	-0.239476	0.37	0.13
Michigan School for the Deaf ***	0.111111111	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Michigan School for the Deaf ***	0	-0.1414	0.41	0.13
Baldwin Elementary School	0.946202532	-1.808966667	0.02	0.12
Threshold Academy	0.938888889	-1.8057	0.02	0.12
Mann Elementary School	0.893782383	-1.683433333	0.03	0.12
Fair Plain West Elementary School	0.870722433	-1.609366667	0.04	0.12
Marquette Elementary School	0.827304551	-1.482175	0.05	0.12
Oakman Elementary / Orthopedic School	0.814159292	-1.4507	0.05	0.12
Arcadia Elementary School	0.775086505	-1.361033333	0.07	0.12
Prairie Ridge Elementary School	0.69122807	-1.170433333	0.1	0.12
St. Ignace Elementary School	0.596153846	-0.943233333	0.15	0.12
Haggerty Elementary School	0.485587583	-0.692766667	0.22	0.12
Page Middle School	0.46969697	-0.68305	0.22	0.12
Pittsford Area High School	0.430379747	-0.58548	0.25	0.12
Tyler Road Elementary School	0.419182948	-0.560266667	0.25	0.12
Aspen Ridge Elementary School	0.36716792	-0.463125	0.29	0.12

Top to Bottom Ranking 141

Central Middle School	0.392638037	-0.530525	0.26	0.12
Swartz Creek High School	0.317764804	-0.353214	0.32	0.12
Flushing Middle School	0.326409496	-0.416	0.31	0.12
Paddock Elementary School	0.300829876	-0.3723	0.32	0.12
Mason Senior High School ***	0.266666667	-0.308682	0.34	0.12
K.C. Ling Elementary School	0.264317181	-0.3183	0.34	0.12
Lottie M. Schmidt Elem. School	0.26344086	-0.3145	0.34	0.12
Gier Park School	0.906832298	-1.7347	0.03	0.11
Wilkins Elementary School	0.885154062	-1.675225	0.03	0.11
Garvey Academy	0.874371859	-1.659125	0.03	0.11
Palmer Park Preparatory Academy	0.837251356	-1.5582	0.04	0.11
Dixon Elementary School	0.803896104	-1.491825	0.05	0.11
Mark Twain Elementary School	0.785714286	-1.421475	0.06	0.11
Detroit School of Arts West - Langston Hughes Campus	0.775462963	-1.4089	0.06	0.11
Carver Elementary School	0.773299748	-1.3901	0.06	0.11
Hamady Community High School	0.756329114	-1.365094	0.07	0.11
Pansophia Academy	0.706827309	-1.2363	0.09	0.11
Farwell Elementary School	0.662027833	-1.116	0.11	0.11
Alcott School	0.661290323	-1.1295	0.11	0.11
Ypsilanti High School	0.65625	-1.115696	0.11	0.11
Reynolds Elementary School	0.620535714	-1.008566667	0.13	0.11
Schall Elementary School	0.586124402	-0.9497	0.15	0.11
Frank Jeannette Jr. High School	0.505434783	-0.767275	0.2	0.11
McIntyre Elementary School	0.550684932	-0.891466667	0.16	0.11
Dieck Elementary School	0.51734104	-0.809533333	0.18	0.11
North Adams High School	0.477678571	-0.7219025	0.21	0.11
William G. Mather Elementary School	0.498567335	-0.7738	0.19	0.11
Woodworth Elementary School	0.496969697	-0.786566667	0.19	0.11
Grandville Central Elementary School	0.479069767	-0.7333	0.2	0.11
Leota Fiedler Elementary School	0.456081081	-0.671666667	0.22	0.11
Durand Area High School	0.449458484	-0.669684	0.22	0.11
Harmon Elementary School	0.413888889	-0.594966667	0.24	0.11
Millington High School	0.411877395	-0.596234	0.24	0.11
Carleton Middle School	0.385714286	-0.523325	0.26	0.11
Saranac High School	0.419889503	-0.620804	0.23	0.11
L'Anse Creuse High School	0.315550511	-0.415276	0.31	0.11
Clifford E. Bryant Comm. School	0.313351499	-0.41655	0.31	0.11
Wilkerson Elementary School	0.339857651	-0.4751	0.28	0.11
Mulick Elementary	0.92972973	-1.842933333	0.02	0.1
Tucker Elementary School	0.921052632	-1.815766667	0.02	0.1
Capital Area Academy	0.903846154	-1.78455	0.02	0.1
Burns Elementary School	0.887230514	-1.7367	0.03	0.1
Nah Tah Wahsh Public School Academy	0.881578947	-1.7252	0.03	0.1

Top to Bottom Ranking 142

Whitman Elementary School	0.892351275	-1.740866667	0.02	0.1
Gardner Middle School	0.825284091	-1.56745	0.04	0.1
Ford Acad. for Comm/Perf Arts	0.773648649	-1.4319	0.06	0.1
Pepper Elementary School	0.714606742	-1.2685	0.08	0.1
Hillside Middle School	0.6827853	-1.217725	0.1	0.1
Estabrook School	0.65982906	-1.140633333	0.11	0.1
Middle School at Parkside	0.669631512	-1.2034	0.1	0.1
Decatur Middle School	0.644067797	-1.107875	0.11	0.1
Norrie Elementary School	0.641304348	-1.1229	0.11	0.1
Moccasin Elementary School	0.610909091	-1.058733333	0.12	0.1
Barth Elementary School	0.58186398	-0.969266667	0.14	0.1
Parkwood-Upjohn Elementary School	0.558935361	-0.939633333	0.15	0.1
Westdale Elementary School	0.517460317	-0.862366667	0.17	0.1
Roosevelt Elementary School	0.449074074	-0.721166667	0.21	0.1
Oakview Elementary School	0.408823529	-0.634066667	0.23	0.1
Hemlock Elementary School	0.309236948	-0.5443	0.26	0.1
Davis Junior High School	0.274656679	-0.488325	0.28	0.1
TCAPS Montessori School	0.233532934	-0.463	0.29	0.1
Walled Lake Western High School	0.239344262	-0.50203	0.27	0.1
Laingsburg Elementary School	0.221374046	-0.512933333	0.27	0.1
Kensington Woods High School	0.207407407	-0.466336	0.28	0.1
Legg Middle School ***	0.166666667	-0.4327	0.3	0.1
Covell Elementary	0.875862069	-1.721133333	0.03	0.09
Northwestern Middle School	0.811111111	-1.576425	0.04	0.09
Sherrill Elementary School	0.790588235	-1.510475	0.05	0.09
Waldron Middle School	0.746478873	-1.38965	0.06	0.09
Brace-Lederle K-8 School	0.728410513	-1.358225	0.07	0.09
Battle Creek Central High School	0.699828473	-1.286034	0.08	0.09
Holton Elementary School	0.684337349	-1.252833333	0.09	0.09
Crothers Elementary School	0.670658683	-1.224933333	0.09	0.09
Ellis Elementary School	0.608961303	-1.07655	0.12	0.09
Ionia Middle School	0.571847507	-0.99085	0.14	0.09
Lincoln Brick Elementary School	0.563786008	-0.970666667	0.14	0.09
Farwell High School	0.546052632	-0.961596	0.15	0.09
Newberry Middle School	0.451219512	-0.734775	0.2	0.09
Savage Road Elementary School	0.432786885	-0.700966667	0.21	0.09
White Pine Academy	0.287769784	-0.6721	0.22	0.09
Marshall Academy	0.234200743	-0.58255	0.25	0.09
Richmond Community High School	0.2288	-0.63831	0.23	0.09
Reid Elementary School	0.175438596	-0.547	0.26	0.09
Jennings Elementary School ***	0	-0.450966667	0.29	0.09
Van Zile Elementary School	0.98	-2.0718	0.01	0.08
Campus Elementary	0.932721713	-1.926966667	0.01	0.08

Top to Bottom Ranking 143

Freeman School	0.92879257	-1.889733333	0.01	0.08
Benton Harbor High School	0.908352668	-1.88001	0.02	0.08
Edison Elementary School	0.848664688	-1.6886	0.03	0.08
Lincoln High School	0.827970297	-1.649644	0.03	0.08
Milwood Middle School	0.77077748	-1.51655	0.05	0.08
Adams Upper Elementary School	0.734190782	-1.428066667	0.06	0.08
Northglade Montessori School	0.73245614	-1.388833333	0.06	0.08
Benjamin Franklin Middle School	0.710583153	-1.37495	0.07	0.08
Walker-Winter Elementary School	0.567928731	-1.0494	0.13	0.08
Winans Elementary School	0.578475336	-1.0683	0.12	0.08
John Marshall Upper Elementary School	0.568868981	-1.049866667	0.12	0.08
Pittsford Area Elem. School	0.50974026	-0.906	0.16	0.08
Parchment North Elem. School	0.502109705	-0.903	0.16	0.08
Reading High School	0.523809524	-0.96861	0.14	0.08
Waverly Middle School	0.474285714	-0.8547	0.17	0.08
Washington Street Elementary School	0.476303318	-0.911133333	0.16	0.08
Potterville Elementary School	0.461152882	-0.8982	0.16	0.08
Waterford Mott High School	0.453374233	-0.887792	0.16	0.08
Pullen Elementary School	0.392307692	-0.737666667	0.2	0.08
Summerfield High School ***	0.375	-0.732152	0.2	0.08
Auburn Elementary School	0.363408521	-0.829766667	0.18	0.08
Wood Creek Elementary School	0.333333333	-0.7778	0.19	0.08
Milan Middle School	0.331114809	-0.79765	0.19	0.08
Ellen G. Loftis School	0.981651376	-2.13885	0.01	0.07
Vetal Elementary School	0.857451404	-1.770975	0.02	0.07
Bow Elementary School	0.837712519	-1.71	0.03	0.07
Verona Elementary School	0.823529412	-1.68365	0.03	0.07
Willow Run High School	0.745152355	-1.472164	0.05	0.07
J.W. Sexton High School	0.662666667	-1.317826	0.08	0.07
New Haven High School	0.529968454	-1.022924	0.13	0.07
Jane Addams Elementary School	0.491803279	-0.985133333	0.14	0.07
Garden City Middle School	0.447222222	-0.942275	0.15	0.07
Elliott Elementary School	0.466472303	-1.038366667	0.13	0.07
Wagar Junior High School	0.431924883	-0.940025	0.15	0.07
Thomas Jefferson Elem. School	0.437317784	-0.961933333	0.14	0.07
Kent City High School	0.425061425	-1.002772	0.14	0.07
Ontonagon Area Jr/Sr High School	0.41580756	-0.96335	0.14	0.07
Waverly Senior High School	0.356025759	-0.94897	0.15	0.07
Creative Technologies Academy	0.218543046	-0.786375	0.19	0.07
Summerfield High School	0.186721992	-0.732152	0.2	0.07
Muskegon Heights Middle School	0.962025316	-2.12965	0.01	0.06
SouthEast Academic Center	0.949367089	-2.06095	0.01	0.06
Ann Visger K-5 Preparatory Academy	0.923261391	-2.012166667	0.01	0.06

Top to Bottom Ranking 144

Carleton Elementary School	0.920502092	-1.986766667	0.01	0.06
Gardner Elementary School	0.864541833	-1.8488	0.02	0.06
Pattengill Middle School	0.824925816	-1.74105	0.02	0.06
Fitzgerald Bethune	0.779816514	-1.64665	0.03	0.06
Creative Learning Academy of Science	0.733333333	-1.4973	0.05	0.06
Roosevelt Elementary School	0.70212766	-1.4442	0.06	0.06
Alexander Hamilton Elementary School	0.701716738	-1.449133333	0.05	0.06
Grand Rapids Child Discovery Center	0.66367713	-1.3401	0.07	0.06
Detroit School of Arts	0.603667137	-1.215104	0.1	0.06
Mount Clemens Junior High School	0.613402062	-1.24315	0.09	0.06
Concord Montessori and Community School	0.554216867	-1.13945	0.11	0.06
Warren Mott High School	0.534847703	-1.195586	0.1	0.06
Burr Elementary School	0.5	-1.169866667	0.1	0.06
Quincy Middle School	0.464285714	-1.089875	0.12	0.06
Bellevue Jr/Sr High School	0.464882943	-1.11745	0.11	0.06
Lakeland Elementary School	0.407563025	-1.079433333	0.12	0.06
Morrice Area High School	0.359183673	-0.98452	0.14	0.06
Airport Senior High School	0.332599119	-0.978726	0.14	0.06
Larsen Elementary School ***	0	-0.760466667	0.2	0.06
Bingham School	0.948818898	-2.1398	0.01	0.05
Aisha Shule/WEB Dubois Prep. Academy School	0.909803922	-2.014766667	0.01	0.05
Brenda Scott Academy for Theatre Arts	0.836893204	-1.857725	0.02	0.05
Olive M. Adams Elementary School	0.828087167	-1.809633333	0.02	0.05
Cooke Elementary School	0.815718157	-1.7856	0.02	0.05
Bay County PSA	0.782442748	-1.70535	0.03	0.05
Pontiac Middle School	0.792866941	-1.743125	0.02	0.05
Eastern High School	0.719311962	-1.613168	0.04	0.05
Morey Public School Academy	0.697247706	-1.495166667	0.05	0.05
Bingham Arts Academy	0.682926829	-1.4479	0.05	0.05
East Detroit High School	0.677136596	-1.471538	0.05	0.05
Einstein Elementary School	0.662229617	-1.408966667	0.06	0.05
Roosevelt Primary School	0.678403756	-1.56125	0.04	0.05
Inkster High School	0.649196366	-1.431298	0.06	0.05
Central Middle School	0.579770594	-1.284525	0.08	0.05
Madison Academy	0.577656676	-1.387433333	0.07	0.05
Elmer A. Knopf Learning Center	0.572025052	-1.38461	0.07	0.05
Keith Bovenschen School	0.555555556	-1.3267	0.08	0.05
Birch Street Elementary School	0.537234043	-1.39145	0.06	0.05
Lincoln Senior High School	0.407277817	-1.17247	0.1	0.05
Lamphere High School	0.3847981	-1.16643	0.1	0.05
Grattan Academy - Elementary	0.382716049	-1.19575	0.1	0.05
Thirkell Elementary School	0.93776824	-2.2026	0.01	0.04
Kaiser Elementary School	0.911290323	-2.1165	0.01	0.04



Top to Bottom Ranking 145

Wainwright School	0.887372014	-2.005333333	0.01	0.04
M.L. King Jr. Elementary School	0.885714286	-2.1887	0.01	0.04
Edmonson Elementary School	0.881789137	-1.9927	0.01	0.04
Wright, Charles School	0.872894334	-2.0148	0.01	0.04
West Side Academy Alt. Ed	0.853053435	-1.916752	0.01	0.04
Muskegon Heights High School	0.851219512	-2.145252	0.01	0.04
Union High School	0.823773899	-1.86264	0.02	0.04
Noble Elementary School	0.814385151	-1.85275	0.02	0.04
Parker Elementary School	0.803056027	-1.844575	0.02	0.04
Young, Coleman A. Elementary	0.796946565	-1.813666667	0.02	0.04
Detroit Community Schools-High School	0.796101949	-2.018022	0.01	0.04
Detroit Academy of Arts and Sciences High School	0.788494078	-1.886754	0.01	0.04
Beecher High School	0.75	-1.88593	0.02	0.04
Barton Elementary School	0.748554913	-1.8785	0.02	0.04
Owen Elementary School	0.696236559	-1.697433333	0.03	0.04
King High School	0.701854494	-1.877892	0.02	0.04
Hazel Park High School	0.676860347	-1.57923	0.04	0.04
Everett High School	0.69907736	-1.818874	0.02	0.04
North Park Elementary	0.653225806	-1.5914	0.04	0.04
M.G. Millet Learning Center	0.665427509	-1.75845	0.02	0.04
Oscoda Area High School	0.616972477	-1.618428	0.04	0.04
Beadle Lake Elementary School	0.51048951	-1.522233333	0.05	0.04
Riddle Elementary	0.971830986	-2.4146	0	0.03
Carstens Elementary School	0.955	-2.8069	0	0.03
Fisher Magnet Lower Academy	0.954979536	-2.509166667	0	0.03
Ralph J. Bunche Academy	0.926739927	-2.424	0	0.03
Cheney Academy	0.889400922	-2.43175	0	0.03
Calvin Britain Elementary School	0.883116883	-2.6271	0	0.03
River Rouge High School	0.881355932	-2.3535225	0	0.03
Saginaw High School	0.863509749	-2.58183	0	0.03
Ecorse Community High School	0.851258581	-2.33244	0	0.03
Beckham, William Academy	0.848101266	-2.475933333	0	0.03
Douglass Academy for Young Men	0.831578947	-2.15338	0.01	0.03
Northwestern High School	0.796407186	-2.146712	0.01	0.03
Field, Moses	0.777777778	-1.9866	0.01	0.03
Ford High School	0.697444353	-2.048082	0.01	0.03
Highland Park Community H.S.	0.696397942	-1.902304	0.01	0.03
Mount Clemens High School	0.676148796	-1.848998	0.02	0.03
Vanderbilt Area School	0.650684932	-1.7987	0.02	0.03
Oak Park High School	0.661702128	-2.046574	0.01	0.03
South Lake High School	0.492836676	-1.566922	0.04	0.03
Jerry L White Center High School	0.8	-2.570733333	0	0.02
Pershing High School	0.779608651	-2.859548	0	0.02

Top to Bottom Ranking 146

Southeastern High School	0.767918089	-2.526692	0	0.02
Kettering High School	0.755924171	-2.73691	0	0.02
Buena Vista High School	0.747126437	-2.452342	0	0.02
Northern High School	0.746975806	-2.417412	0	0.02
Osborn Upper School of Global Communications and Culture	0.738271605	-2.553186	0	0.02
Mumford High School	0.680666184	-2.450528	0	0.02
Southwestern High School	0.673123487	-2.367394	0	0.02
Herrington School	0.625766871	-2.2076	0.01	0.02
Pansophia Academy ***	0	-1.2363	0.09	0.02
Alexander School	0	-1.3598	0.07	0.02
Central High School	0.779026217	-3.021384	0	0.01
Denby High School	0.778929188	-3.063904	0	0.01
Cody College Preparatory Upper School of Teaching and Learning	0.725179856	-2.870822	0	0.01
Pontiac High School	0.705305652	-3.08663	0	0.01
Southfield Regional Academic Campus	0.625	-2.882014	0	0.01
Highland Pines School	0.61025641	-2.4479	0	0.01
Monroe County Education Center	0.553191489	-2.26515	0	0.01
Bozymowski Center	0.297450425	-1.9334	0.01	0.01
Finney High School	0.772401434	-3.698322	0	0

School	FRProp	Zscore	TtBRank	NewRank
Franklin Elementary School	0.5	2.79495	0.99	0.99
Webster Elementary School	0.07	4.5207	0.99	0.99
Center for Economicology	0.59	2.169533333	0.99	0.99
Lowrey Middle School	0.85	1.25072	0.93	0.98
Meyer Elementary School	0.61	1.708725	0.98	0.98
Winn Elementary School	0.4	2.14465	0.99	0.98
City Middle/High School	0.35	2.21987	0.99	0.98
Blandford ture Center	0.3	2.653333333	0.99	0.98
Holmes Elementary School	0.22	2.686625	0.99	0.98
Hemmeter Elementary School	0.12	2.94434	0.99	0.98
ISD-Local Programs	0.73	1.353	0.94	0.97
Au Gres-Sims Elementary School	0.73	1.28235	0.93	0.97
Mars Elementary School	0.63	1.5339	0.96	0.97
Kingsley Area Elementary School	0.58	1.4534	0.95	0.97
Howe Traible Center and Montessori	0.49	1.73215	0.98	0.97
Sagiw Arts and Sciences Academy	0.42	1.978471	0.98	0.97
John Ball Park Zoo School	0.32	2.106433333	0.99	0.97
Kent Lake Elementary School	0.27	1.99704	0.98	0.97
Jeffers Elementary School	0.25	2.277975	0.99	0.97
Burns Park Elementary School	0.19	2.28058	0.99	0.97
Angell School	0.16	2.2259	0.99	0.97
University Hills Elem. School	0.13	2.64434	0.99	0.97
Okemos Public Montessori-Central	0.12	2.38125	0.99	0.97
North Hill Elementary School	0.11	2.25052	0.99	0.97
City School	0.07	2.44475	0.99	0.97
Goodwillie Environmental School	0.05	2.39215	0.99	0.97
Richard Elementary School	0.05	2.69912	0.99	0.97
Kettering West Wing	0.82	1.04418	0.89	0.96
Sleight Elementary School	0.64	1.32315	0.94	0.96
Johannesburg-Lewiston High School	0.53	1.368682	0.94	0.96
Handley School	0.41	1.58566	0.97	0.96
Black Elementary School	0.42	1.5636	0.96	0.96
Glen Lake Elementary School	0.33	1.6101	0.97	0.96
Mill Creek Elementary School	0.32	1.56846	0.97	0.96
Mackensen Elementary School	0.3	1.75522	0.98	0.96
Sharon J. Hardy Elementary School	0.22	1.7178	0.98	0.96
Waukazoo Elementary School	0.21	1.67076	0.97	0.96
Spring Lake Intermediate School	0.21	1.66625	0.97	0.96
Peach Plains School	0.21	1.63102	0.97	0.96
William A. Brummer Elementary School	0.19	1.81458	0.98	0.96
Keith Elementary School	0.16	1.75436	0.98	0.96

Top to Bottom Ranking 148

Long Meadow Elementary School	0.12	2.06398	0.99	0.96
Barrd Elementary School	0.13	1.89724	0.98	0.96
Lewis Maire Elementary School	0.12	1.8559	0.98	0.96
Community High School	0.09	2.108294	0.99	0.96
Wealthy School	0.08	2.22598	0.99	0.96
Brownell Middle School	0.07	2.00416	0.99	0.96
Martin Luther King Elem. School	0.07	2.19602	0.99	0.96
Hamilton Elementary School	0.07	1.95726	0.98	0.96
Way Elementary School	0.07	1.965075	0.98	0.96
Delta Kelly Elementary School	0.05	2.03638	0.99	0.96
Van Hoosen Middle School	0.05	1.9997	0.99	0.96
Schroeder Elementary School	0.05	2.02984	0.99	0.96
Bemis Elementary School	0.04	2.2585	0.99	0.96
Musson Elementary School	0.05	1.9864	0.98	0.96
Deerfield Elementary School	0.04	2.173225	0.99	0.96
Glenwood Elementary	0.82	0.93948	0.86	0.95
Bert Goens Learning Center	0.68	1.09285	0.9	0.95
Madison Middle School	0.66	1.13018	0.9	0.95
Blossomland Learning Center	0.64	1.12565	0.9	0.95
Deckerville Elementary School	0.61	1.2324	0.92	0.95
Stephenson Middle School	0.59	1.09526	0.9	0.95
Lake Hills Elementary School	0.52	1.232925	0.92	0.95
Crawford School	0.51	1.21715	0.92	0.95
Calumet High School	0.48	1.365958	0.94	0.95
Grandville West Elementary School	0.49	1.25972	0.93	0.95
Central Elementary School	0.45	1.28922	0.93	0.95
Beaver Island Community School	0.42	1.3359	0.94	0.95
Star Elementary School	0.42	1.32968	0.94	0.95
Drummond Island Elem. School	0.43	1.2595	0.93	0.95
Coopersville East Elementary	0.39	1.27035	0.93	0.95
Lakeland Elementary School	0.36	1.38666	0.95	0.95
Eagle Crest Charter Academy	0.38	1.28366	0.93	0.95
Orchard Primary School	0.34	1.37555	0.94	0.95
Sycamore Elementary School	0.32	1.48238	0.96	0.95
Pattengill School	0.3	1.40212	0.95	0.95
Jamestown Elementary School	0.25	1.53438	0.96	0.95
Chestnut Hill School	0.21	1.5747	0.97	0.95
Webber School	0.2	1.61352	0.97	0.95
Carpenter Year Round Elem. School	0.16	1.72378	0.98	0.95
Costello Elementary School	0.15	1.70704	0.98	0.95
Bloomfield Hills Middle School	0.07	1.90594	0.98	0.95
Kerby Elementary School	0.05	1.9467	0.98	0.95
Birmingham Covington School	0.05	1.92556	0.98	0.95

Top to Bottom Ranking 149

Iris Becker Elementary School	0.94	0.70566	0.8	0.94
Kingston High School	0.69	0.9358	0.86	0.94
Martin Luther King, Jr. Education Center Academy	0.62	1.059075	0.89	0.94
Frostick School	0.63	0.9679	0.87	0.94
Henry Ford Early College	0.61	1.0603	0.89	0.94
Harbor Beach Elementary School	0.53	1.02335	0.88	0.94
Ottawa Elementary School	0.49	1.1679	0.91	0.94
Hill-McCloy High School	0.5	1.062476	0.89	0.94
Grant High School	0.47	1.121484	0.9	0.94
Griffin Elementary School	0.48	1.04328	0.89	0.94
Nottawa Community School	0.44	1.2022	0.92	0.94
Eagle Lake Elementary School	0.45	1.135766667	0.91	0.94
Buchan High School	0.41	1.197518	0.92	0.94
Fair Haven Elementary School	0.41	1.23842	0.92	0.94
Red Cedar School	0.41	1.1513	0.91	0.94
Twin Beach Elementary	0.31	1.34038	0.94	0.94
Brown Elementary School	0.29	1.393	0.95	0.94
Clinton High School	0.28	1.43721	0.95	0.94
Marshall Elementary School	0.26	1.463175	0.96	0.94
Gardens Elementary School	0.25	1.45836	0.96	0.94
Brooklands Elementary School	0.21	1.56414	0.97	0.94
Great Oaks Elementary School	0.16	1.64794	0.97	0.94
Oakley Park Elementary School	0.15	1.6545	0.97	0.94
Northern Hills Middle School	0.15	1.66575	0.97	0.94
Cannonsburg Elementary School	0.13	1.69854	0.97	0.94
Brewster Elementary School	0.05	1.86972	0.98	0.94
Messmore Elementary School	0.04	1.92234	0.98	0.94
Lybrook Elementary School	0.85	0.66378	0.79	0.93
Geer Park Elementary	0.79	0.79326	0.82	0.93
Marion D. Crouse Instr. Center	0.74	0.84495	0.84	0.93
Ludington Magnet Middle School	0.73	0.76128	0.82	0.93
Ottawa Area Center	0.67	0.8807	0.85	0.93
Campbell Elementary School	0.6	0.883225	0.85	0.93
Gladwin Elementary School	0.59	0.88015	0.85	0.93
Grayling High School	0.56	0.995512	0.87	0.93
West Oakview Elementary School	0.55	0.975766667	0.87	0.93
Harbor Beach Middle School	0.56	0.87418	0.85	0.93
Frankfort Elementary School	0.55	0.89028	0.85	0.93
Parma Elementary School	0.55	0.9088	0.85	0.93
Kent City Middle School	0.54	0.9074	0.85	0.93
Constantine High School	0.54	0.883738	0.85	0.93
River Valley High School	0.52	0.956418	0.86	0.93
Three Fires Elementary	0.45	1.0601	0.89	0.93

Top to Bottom Ranking 150

Cameron Elementary School	0.42	1.0958	0.9	0.93
Bean Elementary School	0.39	1.15444	0.91	0.93
Lincoln School	0.38	1.15916	0.91	0.93
Green Elementary School	0.32	1.30682	0.93	0.93
Grandville South Elementary School	0.3	1.32442	0.94	0.93
Cross Creek Charter Academy	0.29	1.3223	0.94	0.93
Hiawatha Elementary School	0.23	1.468475	0.96	0.93
Deerfield Elementary School	0.24	1.436525	0.95	0.93
Grandville Grand View Elementary School	0.24	1.44724	0.95	0.93
Lakewood Elementary School	0.22	1.47418	0.96	0.93
Innocademy	0.22	1.49735	0.96	0.93
Haslett Middle School	0.19	1.52456	0.96	0.93
Sayre Elementary School	0.18	1.55186	0.96	0.93
Northern Trails 5/6 School	0.14	1.63845	0.97	0.93
Hill Elementary School	0.13	1.64792	0.97	0.93
Eastern Middle School	0.12	1.700225	0.97	0.93
Canton Charter Academy	0.09	1.75936	0.98	0.93
Ada Elementary School	0.08	1.77155	0.98	0.93
Novi Woods Elementary School	0.02	1.898975	0.98	0.93
Crescent Academy	0.83	0.64494	0.78	0.92
Star Intertiol Academy	0.8	0.655486	0.79	0.92
Crystal Lake Elementary School	0.62	0.8284	0.83	0.92
Sterling Elementary School	0.61	0.767475	0.82	0.92
Chippewa Hills High School	0.6	0.830518	0.83	0.92
North Central Elementary School	0.61	0.7877	0.82	0.92
Louise Peacock Elementary School	0.58	0.85188	0.84	0.92
Kent City Elementary School	0.56	0.84722	0.84	0.92
Cass City High School	0.53	0.87625	0.85	0.92
Bates Academy	0.42	1.06152	0.89	0.92
Morrish Elementary School	0.39	1.08804	0.9	0.92
Mary A. White School	0.39	1.13182	0.9	0.92
Saugatuck Middle School	0.35	1.17374	0.91	0.92
Sandyview Elementary School	0.32	1.24975	0.93	0.92
Howard Elementary School	0.32	1.23968	0.92	0.92
Palms Elementary School	0.25	1.39008	0.95	0.92
Quincy Elementary School	0.24	1.40994	0.95	0.92
Countryside Elementary School	0.24	1.38845	0.95	0.92
Mattawan Early Elem. School	0.19	1.4976	0.96	0.92
Ashley Elementary School	0.16	1.56138	0.96	0.92
Independence Elementary School	0.1	1.6805	0.97	0.92
Central Woodlands 5/6 School	0.1	1.6743	0.97	0.92
Thorpple Elementary School	0.07	1.74855	0.98	0.92
Boulan Park Middle School	0.06	1.7881	0.98	0.92

Top to Bottom Ranking 151

Meek-Milton Elementary School	0.92	0.49315	0.72	0.91
Pathfinder Center	0.76	0.6065	0.77	0.91
Hillman Elementary School	0.71	0.67266	0.79	0.91
Grayling Middle School	0.66	0.68612	0.8	0.91
Andrews Elementary School	0.69	0.61926	0.78	0.91
Greenwood Elementary School	0.68	0.64825	0.78	0.91
Northport Public School	0.53	0.8542	0.84	0.91
Ridgeview Elementary School	0.52	0.86785	0.84	0.91
Vanguard Charter Academy	0.49	0.89742	0.85	0.91
Dibble Elementary School	0.39	1.07942	0.89	0.91
Douglas Elementary School	0.34	1.16168	0.91	0.91
West MI Academy of Arts and Academics	0.32	1.18748	0.92	0.91
Gordon Elementary School	0.3	1.23385	0.92	0.91
Hemlock High School	0.26	1.309484	0.94	0.91
Bauer Elementary School	0.21	1.39124	0.95	0.91
Orion Oaks Elementary School	0.13	1.57414	0.97	0.91
Kettle Lake Elementary School	0.14	1.54822	0.96	0.91
Hart Middle School	0.14	1.56216	0.96	0.91
West Hills Middle School	0.08	1.69868	0.97	0.91
Wines Elementary School	0.08	1.68146	0.97	0.91
Leord Elementary School	0.07	1.72114	0.98	0.91
Central Academy	0.84	0.4992	0.72	0.9
Luther Elementary School	0.78	0.49805	0.72	0.9
Pine Creek Elementary School	0.79	0.4827	0.71	0.9
Caseville Elementary School	0.74	0.5135	0.73	0.9
Leonidas School	0.7	0.5946	0.76	0.9
Madison Elementary School	0.71	0.5774	0.75	0.9
Chrysler Elementary School	0.68	0.58745	0.76	0.9
Bluffton Elementary School	0.68	0.59795	0.76	0.9
Watervliet Senior High School	0.54	0.790842	0.82	0.9
Kingsley Area High School	0.5	0.847234	0.84	0.9
New Buffalo Elementary School	0.5	0.81994	0.83	0.9
Dorr School	0.43	0.941175	0.86	0.9
Hamilton Elementary School	0.35	1.08476	0.89	0.9
Alto Elementary School	0.31	1.17492	0.91	0.9
Edison Elementary School	0.28	1.24462	0.92	0.9
Bentheim Elementary School	0.26	1.25954	0.93	0.9
Tobey Elementary School	0.28	1.24628	0.92	0.9
Siebert School	0.25	1.28116	0.93	0.9
Indian Hill Elementary School	0.21	1.37338	0.94	0.9
Baldwin Street Middle School	0.19	1.40704	0.95	0.9
Eberwhite School	0.17	1.4541	0.96	0.9
Rosy Mound School	0.16	1.49848	0.96	0.9

Top to Bottom Ranking 152

Paint Creek Elementary School	0.16	1.46764	0.96	0.9
Rockford Spanish Immersion	0.06	1.700025	0.97	0.9
Harlan Elementary School	0.05	1.73418	0.98	0.9
Global Preparatory Academy	0.99	0.2831	0.62	0.89
Godfrey-Lee Early Childhood Ctr.	0.92	0.33595	0.65	0.89
C.L.K. Elementary School	0.71	0.4974	0.72	0.89
Lincoln Elementary School	0.68	0.52505	0.73	0.89
Manton Consolidated Elem. School	0.63	0.60215	0.77	0.89
Algoc Elementary School	0.65	0.55964	0.75	0.89
Kincheloe Elementary School	0.63	0.59286	0.76	0.89
Cass Technical High School	0.6	0.654158	0.78	0.89
Otter Lake Elementary School	0.58	0.6649	0.79	0.89
Norton Elementary School	0.58	0.65274	0.78	0.89
Gaylord Middle School	0.52	0.765525	0.82	0.89
West Iron County High School	0.51	0.770364	0.82	0.89
East Oakview Elementary School	0.48	0.843075	0.84	0.89
Ubly Community High School	0.49	0.802612	0.83	0.89
Brimley Jr./Sr. High	0.47	0.868622222	0.84	0.89
Woodland Elementary School	0.46	0.87075	0.85	0.89
Croswell-Lexington High School	0.48	0.836144	0.83	0.89
Sheridan School	0.47	0.8634	0.84	0.89
Hahn Intermediate School	0.45	0.8707	0.84	0.89
Centennial Middle School	0.22	1.31286	0.94	0.89
Spencer Road Elementary School	0.21	1.353275	0.94	0.89
Eastover Elementary School	0.21	1.347575	0.94	0.89
Forest Grove Elementary School	0.14	1.48776	0.96	0.89
Achieve Charter Academy	0.12	1.55346	0.96	0.89
Amerman Elementary School	0.04	1.71042	0.98	0.89
Highmeadow Common Campus School	0.03	1.730925	0.98	0.89
Harms Elementary School	0.97	0.26856	0.62	0.88
Whittemore-Prescott Area Middle School	0.83	0.34752	0.66	0.88
Countryside Academy-Elementary	0.84	0.3329	0.65	0.88
North Godwin Elementary School	0.85	0.313325	0.64	0.88
Ryan Elementary School	0.72	0.433975	0.69	0.88
East Elementary School	0.68	0.492875	0.72	0.88
Marcellus Elementary School	0.63	0.535375	0.74	0.88
Ferndale High School	0.56	0.678046	0.79	0.88
Belle River Elementary School	0.55	0.66068	0.79	0.88
Beach Elementary School	0.52	0.71656	0.81	0.88
Sandusky High School	0.47	0.825486	0.83	0.88
Francis A. Higgins Elem. School	0.44	0.84584	0.84	0.88
Muir Middle School	0.32	1.09536	0.9	0.88
St. Clair High School	0.24	1.247202	0.93	0.88



Top to Bottom Ranking 153

Ida Elementary School	0.24	1.251075	0.93	0.88
South Lyon East High School	0.23	1.26443	0.93	0.88
Switzer Elementary School	0.18	1.36428	0.94	0.88
Waldron Elementary and Middle School	0.16	1.40442	0.95	0.88
Robert Trombly Elementary School	0.16	1.40806	0.95	0.88
East Hills Middle School	0.16	1.42104	0.95	0.88
Kpp Forest Elementary School	0.07	1.61766	0.97	0.88
Creative Arts/Gifted and Talented Academy	0.93	0.218975	0.59	0.87
Walkerville Elementary School	0.87	0.2503	0.61	0.87
Detroit Merit Charter Academy	0.87	0.22676	0.6	0.87
Townline Elementary	0.86	0.23494	0.6	0.87
Lee High School	0.81	0.29532	0.63	0.87
Southwood Elementary	0.73	0.38016	0.67	0.87
Lake Ann Elementary School	0.6	0.5529	0.74	0.87
Stephenson Elementary School	0.6	0.5487	0.74	0.87
North Central Area Junior/Senior High School	0.49	0.7233175	0.81	0.87
Gaylord Intermediate School	0.51	0.7102	0.8	0.87
New Buffalo Middle School	0.49	0.74428	0.81	0.87
Bursley School	0.42	0.87972	0.85	0.87
McGregor Elementary School	0.39	0.92252	0.86	0.87
Steele Street Elementary School	0.37	0.95968	0.87	0.87
Wattles Park Elementary School	0.36	0.965475	0.87	0.87
Comstock Park High School	0.36	0.971826	0.87	0.87
Davison High School	0.34	1.00591	0.88	0.87
Kurtz Elementary School	0.31	1.08884	0.9	0.87
Grand Traverse Academy	0.28	1.13666	0.91	0.87
Hamilton Middle School	0.27	1.16182	0.91	0.87
Gallimore Elementary School	0.26	1.1646	0.91	0.87
Ruahmah J. Hutchings Elementary	0.21	1.27566	0.93	0.87
Bennett Woods Elementary School	0.18	1.340825	0.94	0.87
Creekside Elementary School	0.14	1.425325	0.95	0.87
Central Middle School	0.09	1.54555	0.96	0.87
Baldwin Elementary School	0.09	1.54184	0.96	0.87
Breton Downs School	0.05	1.6344	0.97	0.87
Burton Elementary School	0.03	1.69108	0.97	0.87
Woodworth Middle School	0.88	0.16658	0.57	0.86
Owendale-Gagetown Elementary School	0.78	0.282	0.62	0.86
David Ellis Academy	0.7	0.39928	0.68	0.86
White Cloud Upper Elementary School	0.73	0.34264	0.65	0.86
Kinloch Elementary School	0.68	0.40955	0.68	0.86
Clara B. Bolen Elementary School	0.63	0.484425	0.72	0.86
Carney-deau School	0.61	0.5139	0.73	0.86
Nellie B. Chisholm Middle School	0.54	0.6246	0.78	0.86

Top to Bottom Ranking 154

Ring Lardner Middle School	0.6	0.529025	0.73	0.86
Ellsworth Community School	0.62	0.481066667	0.71	0.86
Niles Senior High School	0.54	0.602918	0.77	0.86
Springport High School	0.5	0.702062	0.8	0.86
Vowles School	0.48	0.71575	0.81	0.86
Central Elementary School	0.49	0.707525	0.8	0.86
Yale Elementary School	0.47	0.73094	0.81	0.86
Centreville High School	0.42	0.83788	0.84	0.86
John Allen School	0.37	0.94694	0.86	0.86
Hayes Elementary School	0.37	0.92955	0.86	0.86
Plymouth Elementary School	0.37	0.92424	0.86	0.86
Flickinger Elementary School	0.34	0.9763	0.87	0.86
Pinecrest School	0.3	1.065825	0.89	0.86
Beal City High School	0.27	1.11853	0.9	0.86
Murphy Elementary School	0.23	1.22162	0.92	0.86
Myers Elementary School	0.2	1.26398	0.93	0.86
Adams Elementary School	0.18	1.33154	0.94	0.86
Commerce Elementary School	0.19	1.30206	0.93	0.86
Orchard View Elementary School	0.17	1.33366	0.94	0.86
Hartland Farms Intermediate School	0.17	1.333875	0.94	0.86
Clague Middle School	0.15	1.39612	0.95	0.86
Stadium Drive Elementary School	0.15	1.3896	0.95	0.86
Holly Academy	0.14	1.3965	0.95	0.86
Silver Springs Elementary School	0.11	1.46182	0.96	0.86
East Grand Rapids Middle School	0.1	1.48942	0.96	0.86
West Maple Elementary School	0.06	1.59294	0.97	0.86
Covert Middle School	0.96	0.09458	0.53	0.85
Arec Eastern Elementary School	0.9	0.1193	0.54	0.85
West Village Academy	0.86	0.16148	0.56	0.85
K.I. Sawyer Elementary School	0.89	0.10816	0.54	0.85
River Oaks Elementary School	0.77	0.25332	0.61	0.85
Grayling Elementary - AuSable Primary School	0.66	0.3967	0.68	0.85
Edison Public School Academy	0.61	0.48332	0.72	0.85
Benzie Central Sr. High School	0.61	0.466916	0.71	0.85
Reissance High School	0.53	0.602764	0.77	0.85
Cedar View Elementary School	0.53	0.61225	0.77	0.85
Ezra Eby Elementary School	0.5	0.6663	0.79	0.85
Elmer A. Knopf Learning Center	0.48	0.69045	0.8	0.85
Panther Elementary	0.48	0.70162	0.8	0.85
Cadillac Senior High School	0.44	0.766736	0.82	0.85
Olivet High School	0.36	0.91455	0.86	0.85
John F. Farrell-Emmett Elementary School	0.39	0.85688	0.84	0.85
Stewart Elementary School	0.33	0.97468	0.87	0.85

Top to Bottom Ranking 155

Voyager Elementary School	0.31	1.0273	0.88	0.85
Allen Elementary School	0.28	1.0931	0.9	0.85
Ann L. Dolsen Elementary School	0.22	1.20226	0.92	0.85
Woodland Elementary School	0.21	1.244825	0.92	0.85
Riley Elementary School	0.2	1.2502	0.93	0.85
Meadow Brook Elementary School	0.21	1.2227	0.92	0.85
Rochester Adams High School	0.06	1.54593	0.96	0.85
Workman Elementary School	0.04	1.60852	0.97	0.85
Winchester Elementary School	0.03	1.62042	0.97	0.85
Pullman Elementary School	0.95	0.036125	0.5	0.84
Detroit Premier Academy	0.91	0.06936	0.52	0.84
East Kelloggsville School	0.84	0.14288	0.55	0.84
West Kelloggsville School	0.82	0.16002	0.56	0.84
Fairview Elementary School	0.73	0.281733333	0.62	0.84
Ardmore Elementary School	0.72	0.28248	0.62	0.84
Mason County Central Upper Elementary	0.65	0.38608	0.67	0.84
Vera Wilsie Elementary School	0.65	0.3866	0.67	0.84
Hesperia Middle School	0.65	0.37996	0.67	0.84
Borland Elementary School	0.61	0.46188	0.7	0.84
John R Rodger Elementary School	0.55	0.547425	0.74	0.84
Red Arrow Elementary School	0.52	0.59715	0.76	0.84
Classical Academy	0.57	0.498255556	0.72	0.84
Johannesbur-Lewiston Elementary/Middle School	0.51	0.60094	0.77	0.84
Mason Central School	0.51	0.61006	0.77	0.84
Lakeshore Elementary School	0.47	0.69276	0.8	0.84
Violet Elementary School	0.47	0.6766	0.79	0.84
Ross Park Elementary School	0.47	0.68004	0.79	0.84
Roberts Elementary School	0.44	0.72902	0.81	0.84
Hillsdale Preparatory School	0.43	0.75315	0.81	0.84
Edwardsburg Middle School	0.4	0.80134	0.83	0.84
Grandville Cummings Elementary School	0.36	0.91006	0.85	0.84
Sandy Hill School	0.36	0.90346	0.85	0.84
Quincy High School	0.32	0.965498	0.87	0.84
Angell Elementary School	0.32	0.97564	0.87	0.84
Chapman Elementary School	0.3	1.02846	0.88	0.84
Pine River Elementary School	0.26	1.08892	0.9	0.84
Churchill Elementary School	0.27	1.06978	0.89	0.84
Mt. Clemens Montessori Academy	0.24	1.14215	0.91	0.84
Atwood Elementary School	0.21	1.19128	0.92	0.84
Ashley Middle School	0.22	1.186	0.91	0.84
South Arbor Charter Academy	0.2	1.22818	0.92	0.84
Collins Elementary School	0.11	1.424775	0.95	0.84
Eastern High School	0.11	1.412414	0.95	0.84

Top to Bottom Ranking 156

Moraine Elementary School	0.06	1.52308	0.96	0.84
Lakeside School	0.05	1.5491	0.96	0.84
Intertiol Academy of Flint (K-12)	0.92	0.011836	0.49	0.83
Warrendale Charter Academy	0.91	0.0025	0.49	0.83
South Walnut Elementary School	0.83	0.118925	0.54	0.83
Chandler Park Academy - High School	0.84	0.086804	0.53	0.83
New Beginnings Academy	0.8	0.14795	0.56	0.83
Richardson Middle School	0.74	0.22714	0.6	0.83
Forest Area Middle School	0.72	0.26184	0.61	0.83
Jefferson Elementary School	0.68	0.32326	0.64	0.83
Lewiston Elementary School	0.66	0.3271	0.65	0.83
Pinconning Central Elementary School	0.67	0.31948	0.64	0.83
Chesterfield Elementary School	0.63	0.372	0.67	0.83
Carpenter School	0.56	0.485475	0.72	0.83
Beach Elementary School	0.54	0.5457	0.74	0.83
Mayfield Elementary School	0.51	0.57986	0.76	0.83
Oakwood Elementary School	0.49	0.616725	0.77	0.83
Memorial Elementary School	0.51	0.57526	0.75	0.83
Paul A. Schalm School	0.39	0.80356	0.83	0.83
Hughes Elementary School	0.4	0.787325	0.82	0.83
Hill Elementary School	0.33	0.9364	0.86	0.83
Washington Elementary School	0.33	0.94236	0.86	0.83
Woodcrest Elementary School	0.17	1.26694	0.93	0.83
Wattles Elementary School	0.17	1.26626	0.93	0.83
Grandville Century Park Learning Center	0.16	1.28772	0.93	0.83
Miller Elementary School	0.15	1.30654	0.93	0.83
Academy for Business and Technology Elementary	0.91	-0.0255	0.47	0.82
Bernice McDowell Elem. School	0.84	0.07774	0.52	0.82
Vista Charter Academy	0.84	0.06892	0.52	0.82
Oway Elementary School	0.69	0.2766	0.62	0.82
Central Elementary School	0.71	0.23582	0.6	0.82
East Jordan Middle School	0.58	0.44474	0.7	0.82
Boyne Falls Public School	0.59	0.4283	0.69	0.82
Hartford High School	0.66	0.30426	0.63	0.82
Chassell K-12 School	0.51	0.55656	0.75	0.82
Brown City High School	0.51	0.56392	0.75	0.82
Central School	0.45	0.67342	0.79	0.82
Whitmore-Bolles Elementary School	0.51	0.55268	0.74	0.82
Edwardsburg Intermediate School	0.42	0.724875	0.81	0.82
Harbor Springs Middle School	0.32	0.915	0.86	0.82
Charles A. Lindbergh Elementary School	0.28	1.00914	0.88	0.82
Caledonia Elementary School	0.25	1.08218	0.89	0.82
Bauerwood School	0.25	1.06368	0.89	0.82

Top to Bottom Ranking 157

Portage West Middle School	0.14	1.31358	0.94	0.82
Frankenmuth High School	0.14	1.309478	0.93	0.82
Bingham Farms Elementary School	0.11	1.37704	0.94	0.82
Harvest Elementary School	0.08	1.4478	0.95	0.82
Maples Elementary School	0.91	-0.05736	0.46	0.81
McDold Elementary School	0.92	-0.07142	0.45	0.81
Hamtramck Academy	0.9	-0.04882	0.46	0.81
West Godwin Elementary School	0.89	-0.050875	0.46	0.81
University Preparatory Academy (PSAD) – Middle	0.82	0.05236	0.51	0.81
Justus Gage Elementary School	0.78	0.11022	0.54	0.81
Marion Elementary School	0.71	0.209133333	0.59	0.81
Gladwin Intermediate School	0.63	0.33074	0.65	0.81
Manton Consolidated Middle School	0.65	0.30358	0.63	0.81
Kinyon Elementary School	0.72	0.17854	0.57	0.81
Kelloggsville High School	0.71	0.199398	0.58	0.81
Riverside Middle School	0.67	0.25882	0.61	0.81
Peck Jr./Sr. High School	0.57	0.4405425	0.69	0.81
Carsonville-Port Sanilac H.S.	0.57	0.42957	0.69	0.81
Laker Elementary	0.58	0.40688	0.68	0.81
West Elementary School	0.52	0.51274	0.73	0.81
Oakridge High School	0.54	0.479682	0.71	0.81
Riverside Elementary School	0.43	0.6897	0.8	0.81
Morton Elementary School	0.45	0.64336	0.78	0.81
Robinson School	0.42	0.70156	0.8	0.81
Adams Elementary School	0.34	0.85728	0.84	0.81
Jenison Junior High School	0.28	0.997725	0.87	0.81
Parsons Elementary School	0.26	1.0362	0.88	0.81
University High School Academy	0.25	1.04152	0.89	0.81
Chandler Woods Charter Academy	0.26	1.03844	0.88	0.81
Lincoln School	0.26	1.03728	0.88	0.81
Lillian G. Mason Elementary School	0.21	1.1375	0.91	0.81
Hawkins Elementary School	0.18	1.202725	0.92	0.81
Chippewa Middle School	0.17	1.227025	0.92	0.81
Crestwood Elementary School	0.14	1.29802	0.93	0.81
Kennedy Elementary School	0.14	1.293225	0.93	0.81
Cont Elementary School	0.08	1.435875	0.95	0.81
Bird Elementary School	0.06	1.4775	0.96	0.81
Gladys Dillon Elementary School	0.8	0.027133333	0.5	0.8
Holden Elementary School	0.76	0.1145	0.54	0.8
Cooke Elementary School	0.79	0.04792	0.51	0.8
Bloomington Middle and High School	0.76	0.08907	0.53	0.8
Barryton Elementary School	0.73	0.131375	0.55	0.8
Hillcrest Elementary School	0.6	0.351375	0.66	0.8

Top to Bottom Ranking 158

Tustin Elementary School	0.63	0.29594	0.63	0.8
Howard Community School	0.63	0.29906	0.63	0.8
Gobles Elementary School	0.56	0.42268	0.69	0.8
John F. Kennedy Elem. School	0.56	0.42985	0.69	0.8
Discovery Elementary	0.57	0.41468	0.68	0.8
Rodgers Elementary School	0.46	0.61044	0.77	0.8
Ishpeming Middle School	0.53	0.47456	0.71	0.8
St. Charles Elementary School	0.54	0.44496	0.7	0.8
Onsted Elementary	0.41	0.7082	0.8	0.8
Sandy Knoll School	0.36	0.798225	0.83	0.8
Concord Academy-Petoskey	0.34	0.8446	0.84	0.8
Holly High School	0.35	0.823506	0.83	0.8
Westwood Elementary School	0.35	0.82	0.83	0.8
Saugatuck High School	0.33	0.854246	0.84	0.8
Reid Elementary School	0.22	1.10694	0.9	0.8
Logan Elementary School	0.23	1.07498	0.89	0.8
Marysville High School	0.23	1.072498	0.89	0.8
Kiwa School	0.17	1.21615	0.92	0.8
Scripps Middle School	0.17	1.2188	0.92	0.8
Clifford H. Smart Middle School	0.18	1.18238	0.91	0.8
Hilton Road Elementary School	0.13	1.294825	0.93	0.8
Richard J. Duncan Elementary	0.13	1.29782	0.93	0.8
Wass Elementary School	0.11	1.34848	0.94	0.8
Derby Middle School	0.08	1.42072	0.95	0.8
Parkview Elementary School	0.08	1.4156	0.95	0.8
Hugger Elementary School	0.05	1.48362	0.96	0.8
Michigan School for the Deaf ***	1	-0.2536	0.36	0.79
Michigan School for the Deaf ***	1	-0.2536	0.36	0.79
Michigan School for the Deaf ***	1	-0.2536	0.36	0.79
Michigan School for the Deaf ***	1	-0.2536	0.36	0.79
Michigan School for the Deaf ***	1	-0.2536	0.36	0.79
Michigan School for the Deaf ***	1	-0.2536	0.36	0.79
Michigan School for the Deaf ***	1	-0.2536	0.36	0.79
Michigan School for the Deaf ***	1	-0.2536	0.36	0.79
Hope of Detroit Academy	0.95	-0.1945	0.39	0.79
Oakman Elementary School	0.95	-0.1839	0.39	0.79
Riverside Academy	0.95	-0.18274	0.39	0.79
Clippert Academy	0.9	-0.11432	0.43	0.79
Alanson Public School	0.69	0.17912	0.57	0.79
University Preparatory Science and Math (PSAD) Middle School	0.69	0.18224	0.57	0.79
R.J. Steeby School	0.56	0.406275	0.68	0.79
Mecosta Elementary School	0.66	0.216766667	0.59	0.79
St. Igce Middle School	0.58	0.3523	0.66	0.79
Comstock High School	0.56	0.39805	0.68	0.79

Top to Bottom Ranking 159

Alco Community High School	0.48	0.551408	0.74	0.79
Forest View Elementary School	0.48	0.542025	0.74	0.79
Beal City Elementary School	0.45	0.5909	0.76	0.79
Byron Area High School	0.37	0.760458	0.82	0.79
Gearing Elementary School	0.36	0.78558	0.82	0.79
Petoskey High School	0.36	0.769592	0.82	0.79
Hampton Elementary School	0.34	0.8221	0.83	0.79
Marine City High School	0.32	0.863846	0.84	0.79
Temperance Road Elementary School	0.27	0.97014	0.87	0.79
Rogers Elementary School	0.27	0.97216	0.87	0.79
North Muskegon High School	0.25	1.012072	0.88	0.79
Fulton Middle School	0.25	1.018825	0.88	0.79
Addams Elementary	0.23	1.0596	0.89	0.79
Doherty Elementary School	0.21	1.10874	0.9	0.79
Hornung Elementary School	0.13	1.27595	0.93	0.79
Isbister Elementary School	0.07	1.4161	0.95	0.79
Benton Harbor Charter School	1	-0.28692	0.35	0.78
Three Oaks Public School Academy	0.95	-0.217733333	0.38	0.78
Henry Ford Elementary School	0.91	-0.1754	0.4	0.78
South Bendle Elementary School	0.87	-0.12085	0.42	0.78
Coit Arts Academy	0.86	-0.11265	0.43	0.78
Twin Rivers Elementary School	0.71	0.13432	0.55	0.78
Nellie Reed Elementary School	0.62	0.2748	0.62	0.78
Great Lakes Elementary School	0.74	0.08432	0.52	0.78
North Branch Elementary School	0.56	0.3732	0.67	0.78
Alco Elementary School	0.61	0.30012	0.63	0.78
Lakeview High School	0.63	0.261798	0.61	0.78
Bronson Jr/Sr High School	0.56	0.36892	0.67	0.78
Ruth Fox Elementary School	0.54	0.4029	0.68	0.78
Brimley Elementary School	0.52	0.448775	0.7	0.78
Columbia Elementary School	0.47	0.540725	0.74	0.78
Vulcan Middle School	0.42	0.63218	0.78	0.78
Brandon Fletcher Intermediate School	0.39	0.69485	0.8	0.78
Southeast Elementary School	0.34	0.7985	0.83	0.78
Chesaning Middle School	0.27	0.9569	0.86	0.78
Lake Fenton Middle School	0.16	1.20208	0.92	0.78
Ann Arbor Open at Mack School	0.11	1.31334	0.94	0.78
Walkerville Middle School	0.91	-0.2029	0.38	0.77
Old Redford Academy - Middle	0.81	-0.04888	0.46	0.77
Lakeview Elementary School	0.78	-0.00715	0.48	0.77
Westview Elementary School	0.8	-0.05028	0.46	0.77
Angus Elementary School	0.74	0.05626	0.51	0.77
Holland Heights	0.78	-0.0134	0.48	0.77

Top to Bottom Ranking 160

South Boardman Elementary School	0.7	0.1072	0.54	0.77
Sylvester Elementary School	0.66	0.18334	0.58	0.77
John F. Kennedy High School	0.55	0.378914	0.67	0.77
Velma Matson Upper Elementary School	0.64	0.21058	0.59	0.77
West MI Academy of Environmental Science	0.7	0.12509	0.54	0.77
Tekonsha Middle School	0.66	0.16815	0.57	0.77
Mayville High School	0.56	0.363696	0.66	0.77
Washington School	0.58	0.318966667	0.64	0.77
Kingsley Area Middle School	0.56	0.35754	0.66	0.77
Centreville Elementary School	0.54	0.38702	0.67	0.77
Charles C. McGlennen School	0.73	0.0574	0.51	0.77
Excel Charter Academy-Grand River Prep School	0.47	0.51832	0.73	0.77
Hudson Area High School	0.5	0.466742	0.7	0.77
Byron Area Elementary School	0.42	0.6063	0.77	0.77
Ralph Waldo Emerson Elem. School	0.44	0.5709	0.75	0.77
Reuther Middle School	0.31	0.84934	0.84	0.77
Marshall High School	0.22	1.040532	0.89	0.77
Monroe Road Elementary School	0.21	1.06958	0.89	0.77
Oakwood Elementary School	0.21	1.0775	0.89	0.77
Duncan Lake Middle School	0.2	1.0977	0.9	0.77
Village Oaks Elementary School	0.19	1.120325	0.9	0.77
Alward Elementary School	0.17	1.16556	0.91	0.77
Orville C. Krause Early Elementary School	0.17	1.1538	0.91	0.77
West Middle School	0.14	1.22814	0.92	0.77
Charyl Stockwell Academy	0.14	1.23324	0.92	0.77
Dodson Elementary School	0.06	1.41614	0.95	0.77
Arts and Technology Academy of Pontiac	1	-0.3805	0.31	0.76
Cesar Chavez Academy Elementary	0.97	-0.35065	0.32	0.76
Michigan School for the Deaf ***	0.92	-0.2536	0.36	0.76
Nims Elementary School	0.86	-0.17438	0.4	0.76
Dye Elementary School	0.81	-0.09874	0.44	0.76
University High School	0.74	0.021228	0.5	0.76
Betsie Valley School	0.79	-0.0469	0.46	0.76
Clarence Randall Elem. School	0.67	0.14734	0.56	0.76
Waldron Middle School	0.75	0.00675	0.49	0.76
Anderson Elementary School	0.65	0.16455	0.57	0.76
Dowagiac Middle School	0.73	0.02926	0.5	0.76
Alexander Elementary School	0.53	0.380175	0.67	0.76
Oakridge Upper Elementary School	0.66	0.16012	0.56	0.76
Chikaming Elementary School	0.58	0.29075	0.63	0.76
E.A. Johnson Memorial H.S.	0.67	0.14521	0.55	0.76
Ishpeming High School	0.43	0.582734	0.76	0.76
L'Anse Creuse Middle School - East	0.38	0.67144	0.79	0.76



Top to Bottom Ranking 161

Riley Street Middle School	0.35	0.73684	0.81	0.76
Cass City Middle School	0.34	0.76932	0.82	0.76
Robert L. Nickels Intermediate School	0.29	0.8742	0.85	0.76
Grand Blanc Community High School	0.27	0.923154	0.86	0.76
Spring Lake High School	0.21	1.055476	0.89	0.76
Stevens T. Mason Elementary School	0.22	1.03274	0.88	0.76
Millennium Middle School	0.22	1.02696	0.88	0.76
Morgan Elementary School	0.17	1.13884	0.91	0.76
Salem High School	0.13	1.229418	0.92	0.76
Hoover Elementary School	0.1	1.299225	0.93	0.76
John Monteith Elementary School	0.09	1.31692	0.94	0.76
Voyageur Consortium High School	0.86	-0.19929	0.39	0.75
Hale Elementary/Middle School	0.79	-0.07722	0.45	0.75
Vanderbilt Charter Academy	0.74	0.00228	0.49	0.75
KND Elementary	0.73	0.02088	0.5	0.75
Intertiol Academy of Sagiw	0.77	-0.044766667	0.46	0.75
Frankfort High School	0.52	0.39274	0.68	0.75
Linsday Elementary School	0.82	-0.13376	0.42	0.75
Bloomingtondale Elementary School	0.77	-0.05374	0.46	0.75
East Middle School	0.41	0.60018	0.77	0.75
Summit Academy North Elementary School	0.65	0.1637	0.56	0.75
Berrien Springs Middle School	0.63	0.19892	0.58	0.75
Shelby High School	0.52	0.393362	0.68	0.75
Keppen School	0.86	-0.20212	0.38	0.75
Colon Elementary School	0.6	0.23506	0.6	0.75
North Pennfield Elementary	0.5	0.4273	0.69	0.75
Petoskey Middle School	0.4	0.615	0.77	0.75
Platte River Elementary School	0.7	0.0635	0.51	0.75
Dimondale Elementary School	0.46	0.4975	0.72	0.75
Capac Middle School	0.47	0.47694	0.71	0.75
Bath High School	0.38	0.65441	0.79	0.75
Michigan Center Jr/Sr High School	0.55	0.3229	0.64	0.75
Pinewood School	0.31	0.82214	0.83	0.75
Cherokee Elementary School	0.34	0.74862	0.81	0.75
Park Elemementary School	0.26	0.91714	0.86	0.75
Saline High School	0.07	1.345384	0.94	0.75
Cesar Chavez Middle School	0.97	-0.40394	0.3	0.74
Urbandale School	0.87	-0.23288	0.37	0.74
North Holland Elementary School	0.69	0.06902	0.52	0.74
Lowrey Elementary School	0.85	-0.21018	0.38	0.74
Park Elementary School	0.61	0.20728	0.59	0.74
Kalkaska High School	0.55	0.308454	0.64	0.74
West Iron County Middle School	0.58	0.255	0.61	0.74

Top to Bottom Ranking 162

Columbiaville Elementary School	0.56	0.30326	0.63	0.74
Endeavor Elementary	0.51	0.3743	0.67	0.74
Susick Elementary School	0.57	0.2848	0.62	0.74
Congress School	0.64	0.1524	0.56	0.74
Mason Middle School	0.4	0.6031	0.77	0.74
Northeastern Elementary School	0.46	0.47552	0.71	0.74
Davison Middle School	0.43	0.53735	0.74	0.74
Boyne City Elementary School	0.52	0.358625	0.66	0.74
Syring Elementary School	0.46	0.47708	0.71	0.74
Escaba Area Public High School	0.42	0.560798	0.75	0.74
Truman High School	0.61	0.19696	0.58	0.74
Adrian High School	0.48	0.442576	0.69	0.74
North Huron School	0.62	0.180806	0.57	0.74
Auburn Elementary School	0.36	0.68604	0.8	0.74
Southwest Elementary School	0.37	0.66702	0.79	0.74
Stambaugh Elementary School	0.7	0.03415	0.5	0.74
Pellston Elementary School	0.62	0.17926	0.57	0.74
Havel Elementary School	0.41	0.57766	0.75	0.74
White Lake Middle School	0.32	0.78084	0.82	0.74
Blue Star Elementary School	0.32	0.78098	0.82	0.74
Parkside Elementary School	0.2	1.0304	0.88	0.74
Mattawan High School	0.14	1.163088	0.91	0.74
Pierce Elementary School	0.05	1.36564	0.94	0.74
Quarton Elementary	0.04	1.40378	0.95	0.74
El-Hajj Malik El-Shabazz Academy	1	-0.481066667	0.27	0.73
Victory Academy Charter School	0.98	-0.4424	0.28	0.73
Palmer School	0.92	-0.3442	0.32	0.73
taki Talibah Schoolhouse of Detroit	0.75	-0.05904	0.46	0.73
Challenger Elementary School	0.43	0.5311	0.74	0.73
Boyne City High School	0.51	0.367278	0.67	0.73
Masonic Heights Elementary School	0.51	0.36972	0.67	0.73
Grand Blanc Middle School West	0.39	0.59988	0.77	0.73
Marcellus High School	0.47	0.444614	0.7	0.73
Paragon Charter Academy	0.56	0.27872	0.62	0.73
Bellaire Middle/High School	0.39	0.614305	0.77	0.73
H.T. Smith Elementary School	0.41	0.5618	0.75	0.73
Marlette Elementary	0.61	0.18324	0.58	0.73
Rose Pioneer Elementary School	0.4	0.58798	0.76	0.73
Pine River Middle School	0.58	0.22388	0.6	0.73
Arno Elementary School	0.41	0.56824	0.75	0.73
Gaylord High School/Voc. Bldg.	0.42	0.536462	0.74	0.73
Whittemore-Prescott Area H.S.	0.8	-0.16028	0.41	0.73
Homer Middle School	0.56	0.27232	0.62	0.73

Top to Bottom Ranking 163

Lincoln Elementary School	0.34	0.71788	0.81	0.73
Sandusky Middle School	0.59	0.21856	0.59	0.73
White Pines Middle School	0.43	0.5224	0.73	0.73
Huntington Elementary School	0.46	0.45888	0.7	0.73
Three Rivers Middle School	0.62	0.16238	0.56	0.73
Grandville East Elementary School	0.64	0.11864	0.54	0.73
North Muskegon Middle School	0.33	0.74124	0.81	0.73
Lakewood High School	0.36	0.676382	0.79	0.73
Hart Middle School	0.68	0.06056	0.51	0.73
Lake City High School	0.65	0.105586	0.53	0.73
Walters Elementary	0.34	0.7157	0.8	0.73
Island City Academy	0.32	0.75125	0.81	0.73
Linden Elementary School	0.26	0.88144	0.85	0.73
Lighthouse Elementary School	0.16	1.10862	0.9	0.73
Okemos High School	0.15	1.13447	0.9	0.73
Sagiw Preparatory Academy	0.97	-0.47858	0.27	0.72
Covert Elementary School	0.97	-0.478575	0.27	0.72
MCESA and Sugnet School Classroom Programs	0.36	0.65445	0.79	0.72
Starr Elementary School	0.53	0.30516	0.64	0.72
Lawton High School	0.51	0.352984	0.66	0.72
Excel Charter Academy	0.39	0.5873	0.76	0.72
Walled Lake Elementary School	0.4	0.56406	0.75	0.72
Cooley Elementary School	0.4	0.56264	0.75	0.72
Ethel C. Bobcean Elem. School	0.44	0.4926	0.72	0.72
Kelloggsville Middle School	0.81	-0.18798	0.39	0.72
Sand Lake Elementary School	0.53	0.30616	0.64	0.72
Wenzel School	0.83	-0.23525	0.37	0.72
Raven High School	0.37	0.62168	0.78	0.72
Tawas Area Middle School	0.54	0.29072	0.63	0.72
Crossroads Charter Academy (7-12)	0.59	0.2036325	0.58	0.72
T.S. Nurnberger Middle School	0.58	0.2068	0.59	0.72
Rawsonville Elementary School	0.83	-0.232025	0.37	0.72
Joseph M. Carkenord Elementary School	0.39	0.59194	0.76	0.72
Gilkey Elementary School	0.35	0.67866	0.79	0.72
Lincoln Heights Elem. School	0.52	0.3245	0.64	0.72
Graebner Elementary School	0.31	0.76548	0.82	0.72
Vern Van Y. School	0.79	-0.163266667	0.4	0.72
South Range Elementary School	0.62	0.143133333	0.55	0.72
Lakeshore Middle School	0.28	0.82508	0.83	0.72
Vera Ralya Elementary School	0.24	0.91212	0.86	0.72
Williamston Middle School	0.22	0.9602	0.87	0.72
Lakes Elementary School	0.2	1.00358	0.88	0.72
Lorenz C. List School	0.21	0.984825	0.87	0.72

Top to Bottom Ranking 164

Bach Elementary School	0.15	1.11542	0.9	0.72
Larson Middle School	0.13	1.15484	0.91	0.72
Rockford High School	0.12	1.16796	0.91	0.72
Creekside Intermediate School	0.1	1.2077	0.92	0.72
East Grand Rapids High School	0.1	1.209716	0.92	0.72
Academy of Waterford	0.93	-0.425375	0.29	0.71
Kenowa Hills Middle School	0.5	0.356575	0.66	0.71
Hesperia High School	0.51	0.328212	0.65	0.71
Cedar Springs High School	0.43	0.492038	0.72	0.71
Mason County Eastern Elem. Sch.	0.77	-0.13785	0.42	0.71
Thomas A. Edison Elem. School	0.53	0.2931	0.63	0.71
Michigan Technical Academy Middle School	0.91	-0.405925	0.3	0.71
Central Elementary School	0.36	0.63208	0.78	0.71
Mo Shores Middle School	0.41	0.53404	0.74	0.71
Coleman Junior/Senior High School	0.5	0.35032	0.66	0.71
Oxbow Elementary School	0.53	0.294	0.63	0.71
Big Rock Elementary School	0.56	0.23885	0.6	0.71
McGrath Elementary School	0.53	0.29358	0.63	0.71
Warner Elementary School	0.38	0.59436	0.76	0.71
Big Rapids High School	0.45	0.444954	0.7	0.71
Woodland Elementary School	0.46	0.42766	0.69	0.71
Superior Central School	0.39	0.56873	0.75	0.71
Sister Lakes Elementary School	0.83	-0.2506	0.36	0.71
Godwin Heights Middle School	0.85	-0.2913	0.34	0.71
Robert M. Larson Elementary School	0.82	-0.23235	0.37	0.71
Marjorie Carlson Elementary School	0.75	-0.11195	0.43	0.71
Burr Oak Elementary School	0.81	-0.20038	0.38	0.71
Cheboygan Middle School	0.63	0.10092	0.53	0.71
Maple Valley Elementary School	0.63	0.105075	0.53	0.71
Northwest Elementary School	0.3	0.75588	0.82	0.71
Ruth Hoppin School	0.63	0.10078	0.53	0.71
Sarah G. Banks Middle School	0.27	0.8277	0.83	0.71
Negaunee High School	0.26	0.83888	0.84	0.71
Whiteford Middle School	0.24	0.89564	0.85	0.71
O.E. Dunkel Middle School	0.25	0.8626	0.84	0.71
Rosewood School	0.21	0.95134	0.86	0.71
Slauson Middle School	0.19	1	0.87	0.71
Pioneer High School	0.18	1.030334	0.88	0.71
Riley Upper Elementary School	0.19	0.9913	0.87	0.71
Thurston Elementary School	0.11	1.17776	0.91	0.71
Grosse Ile High School	0.1	1.202644	0.92	0.71
Brighton High School	0.11	1.181254	0.91	0.71
Ridge Wood Elementary School	0.02	1.37982	0.95	0.71

Top to Bottom Ranking 165

Covert High School	0.96	-0.516816	0.26	0.7
Richfield Public School Academy	0.91	-0.41366	0.29	0.7
Emma Smith Elementary School	0.39	0.5633	0.75	0.7
William Ford Elementary School	0.92	-0.44278	0.28	0.7
McCullough Elementary School	0.84	-0.28012	0.35	0.7
Bridgman High School	0.35	0.62964	0.78	0.7
Union High School	0.59	0.163962	0.57	0.7
Hampton Elementary School	0.5	0.3369	0.65	0.7
Sunfield Elementary School	0.51	0.3184	0.64	0.7
Siple Elementary School	0.49	0.357075	0.66	0.7
Mary Helen Guest Elementary School	0.4	0.54312	0.74	0.7
Morley Stanwood High School	0.4	0.530018	0.74	0.7
Coloma High School	0.54	0.253654	0.61	0.7
Pottersville High School	0.4	0.529326	0.73	0.7
Clarksville School	0.45	0.4438	0.69	0.7
Tri County Senior High School	0.43	0.473982	0.71	0.7
Lessenger Elementary School	0.35	0.63788	0.78	0.7
North Road Elementary School	0.4	0.52984	0.73	0.7
Birchview School	0.57	0.189275	0.58	0.7
Reissance Public School Academy	0.68	-0.0081	0.48	0.7
Bangor Middle School	0.81	-0.24726	0.37	0.7
Attwood School	0.69	-0.03446	0.47	0.7
Vestaburg Community Elem. School	0.68	-0.00648	0.48	0.7
R.B. Boyce Elementary School	0.55	0.22634	0.6	0.7
Bryant School	0.77	-0.16734	0.4	0.7
Southwestern Academy	0.61	0.12349	0.54	0.7
Davis Aerospace High School	0.82	-0.26142	0.36	0.7
Washington Middle School	0.63	0.08172	0.52	0.7
Thorpple Kellogg High School	0.3	0.742112	0.81	0.7
Cole Academy	0.73	-0.10435	0.43	0.7
Holt Senior High School	0.27	0.79779	0.83	0.7
Oak Ridge Elementary School	0.25	0.8458	0.84	0.7
Hickory Woods Elementary School	0.26	0.83708	0.83	0.7
Pewamo-Westphalia Jr. Sr. High School	0.12	1.14081	0.91	0.7
East Leord School	0.97	-0.560833333	0.24	0.69
Swan Valley High School	0.35	0.622246	0.78	0.69
Voyageur Academy	0.95	-0.52244	0.25	0.69
Mendon Middle/High School	0.48	0.352833	0.66	0.69
Galesburg-Augusta High School	0.49	0.344394	0.65	0.69
Grandville Middle School	0.34	0.64595	0.78	0.69
Salk Elementary School	0.39	0.53228	0.74	0.69
Westlake Elementary School	0.32	0.6843	0.8	0.69
Silver Lake Elementary School	0.49	0.34272	0.65	0.69

Top to Bottom Ranking 166

Ashley Elementary School	0.33	0.65485	0.79	0.69
Vassar Senior High School	0.52	0.282332	0.62	0.69
Daisy Brook Elementary School	0.54	0.242325	0.6	0.69
Paw Paw High School	0.42	0.476536	0.71	0.69
Vandenberg Elementary School	0.71	-0.0816	0.45	0.69
Sandburg Elementary School	0.81	-0.2608	0.36	0.69
Ubly Community Elementary School	0.52	0.28536	0.62	0.69
Highview Elementary School	0.7	-0.07085	0.46	0.69
Detroit Service Learning Academy	0.79	-0.22216	0.38	0.69
Clare High School	0.37	0.577148	0.75	0.69
Bryant Middle School	0.37	0.5775	0.75	0.69
Ludington High School	0.37	0.576838	0.75	0.69
Carter Elementary School	0.59	0.14025	0.55	0.69
Oehrli Elementary School	0.57	0.17726	0.57	0.69
Barhitte Elementary School	0.77	-0.18972	0.39	0.69
Watervliet Middle School	0.6	0.11502	0.54	0.69
Montague Elementary School	0.85	-0.3385	0.32	0.69
Garber High School	0.27	0.786948	0.82	0.69
New Lothrop Elementary School	0.24	0.85496	0.84	0.69
Country Oaks Elementary School	0.21	0.91598	0.86	0.69
Roosevelt Elementary School	0.21	0.9264	0.86	0.69
Haslett High School	0.17	1.011006	0.88	0.69
Jefferson Middle School	0.16	1.04048	0.88	0.69
Canton High School	0.12	1.132754	0.9	0.69
Universal Academy	1	-0.643956	0.21	0.68
Riverside Academy - West Campus	0.92	-0.470613	0.27	0.68
Jessie Rouse School	0.92	-0.4882	0.27	0.68
Unis Middle School	0.92	-0.47236	0.27	0.68
Red Hawk Elementary	0.54	0.2292	0.6	0.68
Appleview Elementary School	0.48	0.33156	0.65	0.68
Dresden Elementary School	0.48	0.34276	0.65	0.68
George D. Gilbert Elem. School	0.5	0.30398	0.63	0.68
Emerson Middle School	0.39	0.521675	0.73	0.68
Myers Elementary School	0.94	-0.5197	0.25	0.68
Wilson Community School	0.56	0.18715	0.58	0.68
Jonesville High School	0.4	0.496308	0.72	0.68
Cramer Junior High School	0.38	0.53524	0.74	0.68
Avoca Elementary School	0.39	0.52296	0.73	0.68
Long Elementary School	0.54	0.2206	0.59	0.68
Croswell-Lexington Middle School	0.54	0.21566	0.59	0.68
Halfman Elementary School	0.85	-0.366275	0.32	0.68
North Muskegon Elementary School	0.3	0.69634	0.8	0.68
Shepherd Elementary School	0.54	0.22378	0.59	0.68

Top to Bottom Ranking 167

Linden Charter Academy	0.89	-0.43452	0.28	0.68
Kempton Elementary School	0.72	-0.1205	0.43	0.68
Houghton Central High School	0.29	0.728866	0.81	0.68
Joy Preparatory Academy	0.88	-0.41425	0.29	0.68
Albion High School	0.75	-0.170176	0.4	0.68
Mio-AuSable High School	0.6	0.102176	0.53	0.68
Lucile S. Patton Elem. School	0.82	-0.2948	0.34	0.68
Cascades School	0.89	-0.430966667	0.28	0.68
Brandywine Elementary School	0.66	-0.00638	0.48	0.68
Elsa Meyer Elementary School	0.59	0.1188	0.54	0.68
Mancelo Elementary School	0.78	-0.2326	0.37	0.68
Jesse L. Anderson Elementary School	0.25	0.82256	0.83	0.68
Spring Mills Elementary School	0.26	0.79052	0.82	0.68
Kraft Meadows Middle School	0.22	0.88634	0.85	0.68
Black River Public School	0.19	0.947305	0.86	0.68
Bloomfield Hills Lahser H.S.	0.16	1.026534	0.88	0.68
Gull Lake High School	0.16	1.022256	0.88	0.68
Bentley Elementary School	0.13	1.09168	0.9	0.68
Thornton Creek Elementary School	0.03	1.32912	0.94	0.68
Great Lakes Academy	0.98	-0.622775	0.22	0.67
Clemente, Roberto Academy	0.98	-0.61826	0.22	0.67
Millside Elementary School	0.4	0.485325	0.72	0.67
Marshall Greene Middle School	0.38	0.51594	0.73	0.67
Keewahdin Elementary School	0.37	0.54902	0.74	0.67
Merrill High School	0.39	0.495156	0.72	0.67
Sharp Park Academy	0.53	0.230466667	0.6	0.67
Oakwood Intermediate	0.37	0.53895	0.74	0.67
Luther C. Klager Elem. School	0.28	0.737075	0.81	0.67
Warren Woods Tower High School	0.49	0.303592	0.63	0.67
E.B. Holman Elementary School	0.68	-0.06885	0.46	0.67
Fountain Elementary School	0.64	0.00974	0.49	0.67
Bertha Robinson School	0.65	-0.0042	0.48	0.67
Randels Elementary School	0.7	-0.0983	0.44	0.67
Lakeland High School	0.28	0.735722	0.81	0.67
Shay Elementary School	0.3	0.68314	0.79	0.67
University Preparatory Academy (PSAD) - Elementary	0.81	-0.31036	0.34	0.67
Prairie Elementary School	0.8	-0.290925	0.34	0.67
Schoolcraft Early Elem. School	0.19	0.93865	0.86	0.67
Brown School	0.14	1.04498	0.89	0.67
Woodland Meadows Elementary School	0.13	1.080666667	0.89	0.67
Bates Elementary School	0.1	1.14815	0.91	0.67
Cheyenne Elementary School	0.1	1.1383	0.91	0.67
Tonda Elementary School	0.09	1.1578	0.91	0.67

Top to Bottom Ranking 168

Beverly Elementary School	0.06	1.24442	0.92	0.67
Athens High School	0.48	0.309048	0.64	0.66
North Pointe Elementary School	0.41	0.44652	0.7	0.66
Highlander Way Middle School	0.34	0.59166	0.76	0.66
Haviland Elementary School	0.43	0.399	0.68	0.66
Newaygo High School	0.48	0.306056	0.64	0.66
Clinton Middle School	0.32	0.63634	0.78	0.66
Erving Elementary School	0.41	0.45042	0.7	0.66
Dold J. Yacks Elem. School	0.38	0.49958	0.72	0.66
Unionville-Sebewaing High School	0.37	0.528486	0.73	0.66
Mason County Central H.S.	0.55	0.178542	0.57	0.66
Tomek-Eastern Elem. School	0.39	0.48146	0.71	0.66
Leland Public School	0.38	0.503086	0.72	0.66
Da Vinci Institute (K-8)	0.67	-0.061	0.46	0.66
Heritage Junior High School	0.31	0.6533	0.78	0.66
Wyoming Park High School	0.61	0.048956	0.51	0.66
Marysville Middle School	0.28	0.71168	0.8	0.66
Bangor High School	0.71	-0.138022	0.42	0.66
Advanced Technology Academy	0.8	-0.302885	0.34	0.66
Old Mission Peninsula School	0.25	0.7903	0.82	0.66
Sheridan Road School	0.77	-0.2681	0.36	0.66
Riverside School	0.65	-0.0282	0.47	0.66
Countryside Academy-High School	0.81	-0.3164	0.33	0.66
Westwood High School	0.25	0.7864	0.82	0.66
Blair Moody Elementary School	0.78	-0.2809	0.35	0.66
University Preparatory Academy (PSAD) Elementary	0.81	-0.33216	0.33	0.66
Academy of Southfield	0.82	-0.33945	0.32	0.66
H.H. Dow High School	0.17	0.959826	0.87	0.66
Caledonia High School	0.17	0.964826	0.87	0.66
Beck Centennial Elem. School	0.16	0.99112	0.87	0.66
Bailey Lake Elementary School	0.15	1.01082	0.88	0.66
Skyline High School	0.16	0.9983	0.87	0.66
Sequoyah Elementary School	0.13	1.05188	0.89	0.66
Emmons Lake Elementary School	0.11	1.10234	0.9	0.66
Heritage School	0.1	1.133766667	0.9	0.66
Saline Middle School	0.08	1.165725	0.91	0.66
Sibley School	0.96	-0.62172	0.22	0.65
Hopkins Middle School	0.46	0.33378	0.65	0.65
Maple Grove Elementary School	0.48	0.28926	0.63	0.65
Yale Junior High School	0.42	0.40586	0.68	0.65
Willow Woods Elementary School	0.49	0.26804	0.62	0.65
Detroit Enterprise Academy	0.91	-0.53832	0.25	0.65
Grand Haven High School	0.32	0.612932	0.77	0.65



Top to Bottom Ranking 169

King-Westwood Elementary School	0.48	0.29434	0.63	0.65
Duvall Elementary School	0.29	0.68038	0.79	0.65
Dove Academy of Detroit	0.92	-0.56084	0.24	0.65
A.A. Rather School	0.53	0.1945	0.58	0.65
Ottawa Elementary School	0.45	0.34132	0.65	0.65
Issac Monfort Elementary School	0.29	0.68292	0.79	0.65
Lake City Upper Elem. School	0.65	-0.04012	0.47	0.65
WayPoint Academy	0.83	-0.38635	0.31	0.65
Mendon Elementary School	0.48	0.28024	0.62	0.65
Lean Elementary School	0.49	0.2659	0.61	0.65
Brethren Middle School	0.71	-0.15824	0.41	0.65
Schoolcraft Upper Elem. School	0.26	0.7488	0.81	0.65
Thomas A. Edison Elem. School	0.67	-0.083225	0.45	0.65
Mason County Central M.S.	0.61	0.03584	0.5	0.65
Hesperia St. Clair Elementary School	0.72	-0.172975	0.4	0.65
Scottville Elementary School	0.69	-0.1287	0.42	0.65
Atherton Middle School	0.75	-0.2471	0.37	0.65
Dublin Elementary	0.19	0.90906	0.85	0.65
Grosse Pointe South High School	0.1	1.118644	0.9	0.65
Maybury Elementary School	0.96	-0.651825	0.21	0.64
Hollywood Elementary School	0.36	0.51064	0.73	0.64
Hemlock Elementary School	0.36	0.5144	0.73	0.64
Lakeshore High School	0.28	0.684002	0.8	0.64
Francis Reh PSA	0.95	-0.64884	0.21	0.64
Emma Murphy Elementary School	0.39	0.45482	0.7	0.64
Onkama Elementary School	0.48	0.270966667	0.62	0.64
Allen Park High School	0.27	0.714392	0.8	0.64
Gwinn High School	0.53	0.168022	0.57	0.64
Schofield Elementary School	0.9	-0.54554	0.25	0.64
Pierre Toussaint Academy	0.9	-0.53592	0.25	0.64
Kpp Charter Academy	0.55	0.1318	0.55	0.64
Brandywine Senior High School	0.52	0.183748	0.58	0.64
Bertha Neal School	0.61	0.02185	0.5	0.64
Baraga Area High School	0.55	0.12798	0.55	0.64
Rudyard High School	0.53	0.177182	0.57	0.64
Central School	0.58	0.07056	0.52	0.64
Woodbridge Elementary School	0.25	0.74932	0.81	0.64
Montabella Junior/Senior High	0.66	-0.07517	0.45	0.64
Southeastern Elementary School	0.69	-0.13476	0.42	0.64
Tappan Middle School	0.24	0.77112	0.82	0.64
Shelby Middle School	0.67	-0.098	0.44	0.64
Sheldon Woods Elementary School	0.62	-0.0038	0.48	0.64
Summit Academy	0.61	0.0125	0.49	0.64

Top to Bottom Ranking 170

Clintondale Middle School	0.83	-0.4236	0.29	0.64
Michigan School for the Deaf ***	0.75	-0.2536	0.36	0.64
Stout Middle School	0.8	-0.35034	0.32	0.64
Fitzgerald Senior High School	0.74	-0.241094	0.37	0.64
Robbie Hall Parker School	0.84	-0.43356	0.28	0.64
Holmes Middle School	0.14	1.000575	0.88	0.64
North Creek Elementary School	0.13	1.01855	0.88	0.64
Moorsbridge Elementary School	0.12	1.04282	0.89	0.64
Central High School	0.09	1.120444	0.9	0.64
Forest Elementary School	0.32	0.59258	0.76	0.63
Cesar Chavez Academy Intermediate	1	-0.769325	0.17	0.63
Vicksburg High School	0.32	0.588712	0.76	0.63
Ben Ross Public School Academy	0.96	-0.68906	0.2	0.63
Flagship Charter Academy	0.95	-0.67908	0.21	0.63
Northview High School	0.38	0.462568	0.7	0.63
Ruth McGregor Elementary School	0.38	0.4632	0.7	0.63
Kingsford High School	0.29	0.643154	0.78	0.63
Harbor Beach Community High School	0.42	0.376206	0.67	0.63
Gladwin High School	0.49	0.243012	0.6	0.63
West Ottawa High School Campus	0.47	0.26961	0.62	0.63
St. Charles Community High School	0.48	0.251262	0.61	0.63
Brendel Elementary School	0.4	0.41418	0.68	0.63
Explorer Elementary	0.46	0.29602	0.63	0.63
Zinser Elementary School	0.37	0.4741	0.71	0.63
Fremont High School	0.39	0.435524	0.69	0.63
Ann J. Kellogg School	0.91	-0.57676	0.23	0.63
Laker Junior High School	0.52	0.1736	0.57	0.63
Whitmore Lake Middle School	0.4	0.41118	0.68	0.63
Pinewood Middle School	0.54	0.1297	0.55	0.63
Surline Elementary School	0.63	-0.040475	0.47	0.63
Inland Lakes High School	0.52	0.182774	0.57	0.63
Fordline Elementary School	0.58	0.06358	0.51	0.63
Mattawan Later Elem. School	0.21	0.827	0.83	0.63
Rapid City Elementary School	0.69	-0.1576	0.41	0.63
Greenwood Elementary School	0.7	-0.171875	0.4	0.63
Princeton Elementary School	0.68	-0.12864	0.42	0.63
Hancock Central High School	0.2	0.856148	0.84	0.63
Glerum Elementary School	0.8	-0.37798	0.31	0.63
Northwood Elementary School	0.15	0.96652	0.87	0.63
Mildred C. Wells Preparatory Academy	0.98	-0.7592	0.18	0.62
Bullock Creek Middle School	0.35	0.51164	0.73	0.62
Salem Elementary School	0.28	0.65608	0.79	0.62
Indian Prairie Elementary School	0.29	0.632266667	0.78	0.62

Top to Bottom Ranking 171

Heritage Elementary School	0.29	0.63812	0.78	0.62
McLaughlin Elementary School	0.96	-0.718975	0.19	0.62
Threshold Academy	0.94	-0.66425	0.21	0.62
Oakland Intertiol Academy-Middle/High	0.96	-0.7186	0.19	0.62
Columbia Middle School	0.43	0.34474	0.65	0.62
Jackman Road Elementary School	0.32	0.56908	0.75	0.62
Eureka School	0.35	0.50745	0.72	0.62
Soo Township School	0.43	0.3388	0.65	0.62
George Washington Academy	0.9	-0.59574	0.23	0.62
Westwood Elementary School	0.56	0.08676	0.53	0.62
Gates Elementary School	0.46	0.283575	0.62	0.62
Midland High School	0.24	0.747402	0.81	0.62
Siersma Elementary School	0.64	-0.07406	0.45	0.62
North Elementary School	0.63	-0.0482	0.46	0.62
Capac Elementary School	0.52	0.158325	0.56	0.62
Pennfield Dunlap Elementary	0.52	0.16194	0.56	0.62
Greyhound Intermediate School	0.53	0.14366	0.55	0.62
Townsend Elementary School	0.64	-0.07664	0.45	0.62
Joseph K. Lumsden Bahweting Anishbe Academy	0.56	0.07404	0.52	0.62
Houghton Lake High School	0.66	-0.11468	0.43	0.62
Carsonville-Port Sanilac Elementary School	0.68	-0.15066	0.41	0.62
Grandview Elementary School	0.59	0.018	0.49	0.62
Meadowlawn Elementary	0.79	-0.37736	0.31	0.62
Keidan Special Education School	0.73	-0.258233333	0.36	0.62
Smith Middle School	0.13	0.99518	0.87	0.62
Meadow Brook Elementary School	0.1	1.06764	0.89	0.62
Ernest W. Seaholm High School	0.07	1.13428	0.9	0.62
Michigan Technical Academy Elementary	0.94	-0.6956	0.2	0.61
Lakeshore Middle School	0.36	0.4779	0.71	0.61
Gaines Elementary School	0.39	0.4095	0.68	0.61
Bark River-Harris Jr/Sr High School	0.39	0.40142	0.68	0.61
Ganiard School	0.42	0.34865	0.66	0.61
Cooper Elementary School	0.3	0.5949	0.76	0.61
Sali Elementary P - 3	0.95	-0.719166667	0.19	0.61
Coburn School	0.94	-0.694925	0.2	0.61
Pine River Elementary School	0.28	0.64254	0.78	0.61
Coopersville High School	0.24	0.73655	0.81	0.61
An M. Thurston Middle School	0.5	0.18736	0.58	0.61
Sarac Elementary School	0.52	0.14942	0.56	0.61
Schoolcraft Elementary School	0.45	0.27952	0.62	0.61
Snow Elementary School	0.44	0.29922	0.63	0.61
Harvey-Swanson Elementary School	0.43	0.32055	0.64	0.61
Clinton Valley Elementary School	0.55	0.0855	0.53	0.61

Top to Bottom Ranking 172

Leord Elementary School	0.48	0.223733333	0.59	0.61
Frank E. Weiss Elem. School	0.48	0.22158	0.59	0.61
Boyne City Middle School	0.54	0.09872	0.53	0.61
Union City High School	0.52	0.141008	0.55	0.61
Lincoln School	0.59	0.0068	0.49	0.61
Blesch Intermediate School	0.53	0.11966	0.54	0.61
Bangor West Central School	0.52	0.14278	0.55	0.61
Oakridge Middle School	0.64	-0.0969	0.44	0.61
St. Joseph High School	0.17	0.897362	0.85	0.61
Arthur Hill High School	0.81	-0.423682	0.29	0.61
Clarkston Elementary School	0.18	0.86172	0.84	0.61
Peck Community Elem. School	0.61	-0.040225	0.47	0.61
Sturgis Middle School	0.65	-0.1134	0.43	0.61
Central Montcalm Upper Elem. School	0.65	-0.11728	0.43	0.61
Pennfield Purdy School	0.65	-0.10765	0.43	0.61
Fennville Middle School	0.76	-0.33096	0.33	0.61
Wins Academy Middle School	0.68	-0.172	0.4	0.61
Hartford Middle School	0.77	-0.34074	0.32	0.61
Beaverton Primary School	0.69	-0.194533333	0.39	0.61
Horizon Elementary School	0.15	0.9341	0.86	0.61
Uriah H. Lawton School	0.12	1.00898	0.88	0.61
Crissman Elementary School	0.13	0.98624	0.87	0.61
Plainwell High School	0.28	0.624712	0.78	0.6
Williamston Discovery Elementary School	0.29	0.6085	0.77	0.6
Almont High School	0.29	0.599642	0.77	0.6
Yake Elementary School	0.33	0.52554	0.73	0.6
Jerry L White Center High School	0.93	-0.7011	0.2	0.6
Elms Elementary School	0.46	0.24756	0.61	0.6
Midland Academy of Advanced and Creative Studies	0.25	0.69366	0.8	0.6
Central Elementary School	0.36	0.45476	0.7	0.6
Hanley Intertiol Academy	0.94	-0.72524	0.19	0.6
Heritage Elementary School	0.46	0.25184	0.61	0.6
Parkview Elementary School	0.9	-0.63035	0.22	0.6
Green Acres Elementary School	0.55	0.06708	0.52	0.6
North Park Montessori Academy	0.56	0.04465	0.51	0.6
Lake Linden-Hubbell Elem. School	0.55	0.07074	0.52	0.6
Buchan Middle School	0.53	0.10616	0.53	0.6
Ferry School	0.62	-0.08124	0.45	0.6
Coolidge Elementary School	0.19	0.834525	0.83	0.6
Central Elementary School	0.52	0.12228	0.54	0.6
Kirk Elementary School	0.63	-0.09535	0.44	0.6
T.R. Davis Elementary School	0.63	-0.095133333	0.44	0.6
Pinehurst Elementary School	0.8	-0.423425	0.29	0.6

Top to Bottom Ranking 173

Springport Elementary School	0.62	-0.0725	0.45	0.6
Lee M. Thurston High School	0.5	0.162384	0.56	0.6
The Lincoln Center	0.71	-0.24775	0.37	0.6
Lincoln Community School	0.78	-0.3837	0.31	0.6
Browning Elementary School	0.16	0.9069	0.85	0.6
White Pigeon Jr/Sr High School	0.66	-0.141935	0.41	0.6
Clarke School	0.14	0.94576	0.86	0.6
Rose City Middle School	0.77	-0.37044	0.31	0.6
Pardee School	0.7	-0.22652	0.37	0.6
Scott Elementary School	0.12	0.9911	0.87	0.6
Washtew Technical Middle College	0.1	1.039396	0.88	0.6
Wacousta Elementary School	0.27	0.63894	0.78	0.59
Kenowa Hills High School	0.36	0.448552	0.7	0.59
Pine Tree Elementary School	0.35	0.46752	0.71	0.59
Central Elementary School	0.4	0.364425	0.66	0.59
Sparta Senior High School	0.35	0.46858	0.71	0.59
Washington Elementary School	0.39	0.38524	0.67	0.59
Clifford E. Bryant Comm. School	0.4	0.3567	0.66	0.59
Rochester High School	0.23	0.71755	0.81	0.59
Hopkins High School	0.32	0.529246	0.73	0.59
Detroit West Preparatory Academy	0.91	-0.66765	0.21	0.59
Courtade Elementary School	0.45	0.2605	0.61	0.59
Schoolcraft Middle School	0.25	0.68072	0.79	0.59
Lakewood Elementary School	0.22	0.74292	0.81	0.59
Gobles High School	0.47	0.21778	0.59	0.59
Durant Tuuri Mott School	0.93	-0.72332	0.19	0.59
MacArthur K-8 University Academy	0.46	0.23072	0.6	0.59
Beechu Elementary School	0.5	0.156375	0.56	0.59
Southwest Community Campus School	0.9	-0.65066	0.21	0.59
Merrill Elementary School	0.55	0.05534	0.51	0.59
Brookside Elementary School	0.55	0.04665	0.51	0.59
Berkshire Middle School	0.16	0.8825	0.85	0.59
Arnold Elementary School	0.59	-0.03585	0.47	0.59
White Cloud High School	0.59	-0.027146	0.47	0.59
Doyle/Ryder School	0.85	-0.55932	0.24	0.59
Rankin Elementary School	0.67	-0.18326	0.39	0.59
James Foote School	0.79	-0.42386	0.29	0.59
Jackson Park Intermediate	0.78	-0.396625	0.3	0.59
Discovery Middle School	0.15	0.90864	0.85	0.59
Maltby Intermediate School	0.13	0.951775	0.86	0.59
Hartland Lakes Elementary School	0.13	0.957	0.86	0.59
Montabella Elementary	0.75	-0.33732	0.32	0.59
Shawnee Elementary School	0.12	0.97854	0.87	0.59

Top to Bottom Ranking 174

Howell High School	0.27	0.626216	0.78	0.58
Northridge Academy	1	-0.89185	0.14	0.58
Winchell Elementary School	0.32	0.50962	0.73	0.58
Theo V. Eddy Elementary School	0.33	0.50036	0.72	0.58
Johnson Upper Elementary School	0.29	0.5837	0.76	0.58
Houghton Elementary School	0.32	0.51038	0.73	0.58
Coopersville South Elementary School	0.39	0.36514	0.67	0.58
Patterson Elementary School	0.3	0.5531	0.75	0.58
Seymour Elementary School	0.3	0.55442	0.75	0.58
Oakland Intertiol Academy - Intermediate	0.97	-0.828125	0.16	0.58
Breckenridge High School	0.42	0.30618	0.64	0.58
Dicken Elementary School	0.26	0.65174	0.78	0.58
Amberly Elementary School	0.35	0.44596	0.7	0.58
Oakview Elementary School	0.9	-0.66696	0.21	0.58
Fancher School	0.43	0.2784	0.62	0.58
Newberry High School	0.46	0.222998	0.59	0.58
Floyd Ebeling Elementary School	0.18	0.83354	0.83	0.58
Summit Academy North Middle School	0.51	0.11032	0.54	0.58
George R. Carter Middle School	0.5	0.14282	0.55	0.58
Hartland High School	0.14	0.922456	0.86	0.58
Old Redford Academy - Elementary	0.85	-0.5767	0.24	0.58
South Lyon High School	0.18	0.82126	0.83	0.58
Old Village School	0.51	0.11995	0.54	0.58
Mar Lee School	0.56	0.0099	0.49	0.58
Oxford Elementary School	0.14	0.91572	0.86	0.58
Lincoln Elementary School	0.61	-0.08296	0.45	0.58
Logan Elementary School	0.76	-0.3795	0.31	0.58
Thorne Elementary School	0.84	-0.54632	0.24	0.58
Metro Charter Academy	0.57	-0.00742	0.48	0.58
Washington Elementary School	0.83	-0.53112	0.25	0.58
Roscommon Middle School	0.65	-0.17044	0.4	0.58
Troy High School	0.11	0.987484	0.87	0.58
Francois Maconce Elem. School	0.66	-0.18135	0.39	0.58
West Middle School	0.1	1.01222	0.88	0.58
Lone Pine Elementary School	0.08	1.056066667	0.89	0.58
South River Elementary School	0.27	0.61228	0.77	0.57
Dansville Middle School	0.29	0.57118	0.75	0.57
Perry High School	0.33	0.477288	0.71	0.57
Mo Shores High School	0.32	0.499312	0.72	0.57
New Buffalo Senior High School	0.36	0.417338	0.69	0.57
Jessie Loomis School	0.91	-0.70856	0.2	0.57
The Dearborn Academy	0.98	-0.86832	0.14	0.57
Godfrey Elementary School	0.89	-0.67014	0.21	0.57

Top to Bottom Ranking 175

Lee Middle School	0.86	-0.60882	0.22	0.57
Honey Creek Community School	0.13	0.92426	0.86	0.57
Madison High School	0.55	0.016696	0.49	0.57
Foster School	0.52	0.08374	0.52	0.57
R.W. Kidder Middle School	0.53	0.06344	0.51	0.57
Eaton Academy	0.81	-0.511668	0.26	0.57
Forest Elementary School	0.14	0.90865	0.85	0.57
Lincoln Elementary School	0.74	-0.365775	0.32	0.57
Emerson School	0.82	-0.51895	0.25	0.57
Central Montcalm Elementary School	0.72	-0.32165	0.33	0.57
Brethren High School	0.67	-0.217016	0.38	0.57
Mill Creek Middle School	0.11	0.980025	0.87	0.57
Ridge Park Charter Academy	0.76	-0.40694	0.3	0.57
Robert J. West Middle School	0.7	-0.2881	0.35	0.57
Surline Middle School	0.62	-0.12236	0.42	0.57
Jefferson School	0.74	-0.36684	0.31	0.57
Hillside Middle School	0.05	1.11418	0.9	0.57
Bedford Junior High School	0.27	0.5989	0.77	0.56
Hunter Elementary School	0.3	0.534	0.74	0.56
Angling Road Elementary School	0.23	0.68378	0.8	0.56
Northwest High School	0.35	0.415856	0.69	0.56
Lakeview School	0.31	0.51086	0.73	0.56
Huron High School	0.23	0.688094	0.8	0.56
Charlevoix High School	0.3	0.526864	0.73	0.56
Ruben Daniels Middle School	0.97	-0.85368	0.15	0.56
Whitehills Elementary School	0.37	0.374825	0.67	0.56
Dutton Elementary School	0.34	0.45148	0.7	0.56
Creative Montessori Academy	0.39	0.34242	0.65	0.56
Shettler School	0.43	0.2523	0.61	0.56
North Elementary School	0.44	0.23286	0.6	0.56
Waldon Middle School	0.18	0.79594	0.83	0.56
Amanda Moore Elementary School	0.41	0.2964	0.63	0.56
West Shore Elementary School	0.18	0.79745	0.83	0.56
Marquette Senior High School	0.2	0.752834	0.81	0.56
Robert D. Brandon Elem. School	0.47	0.16598	0.57	0.56
Brooks Elementary School	0.46	0.18522	0.58	0.56
Buchan School	0.93	-0.78276	0.17	0.56
Linwood Elementary School	0.49	0.1267	0.55	0.56
Fruitport Middle School	0.49	0.1289	0.55	0.56
Marlette Jr./Sr. High School	0.53	0.05165	0.51	0.56
Traverse Heights Elem. School	0.89	-0.695033333	0.2	0.56
Woodland Elementary School	0.83	-0.56998	0.24	0.56
Fisher Elementary School	0.57	-0.03016	0.47	0.56

Top to Bottom Ranking 176

Crestwood High School	0.59	-0.076922	0.45	0.56
Kate Dowdall Elementary School	0.62	-0.137575	0.42	0.56
Concord Elementary School	0.59	-0.0765	0.45	0.56
Morenci Area Middle School	0.59	-0.07776	0.45	0.56
Houghton Lake Middle School	0.78	-0.46568	0.28	0.56
Ballard Elementary School	0.73	-0.35994	0.32	0.56
Washington-Parks Academy	0.61	-0.12486	0.42	0.56
Burt Elementary School	0.7	-0.30658	0.34	0.56
Lincoln Park High School	0.7	-0.29822	0.34	0.56
Atlanta Community Schools	0.71	-0.315256	0.33	0.56
Bellevue Elementary School	0.65	-0.201	0.38	0.56
Indian Hills Elementary School	0.26	0.60664	0.77	0.55
Byron Center High School	0.26	0.608966	0.77	0.55
John F. Kennedy School	0.27	0.57834	0.76	0.55
Indian Lake Elementary School	0.31	0.490125	0.72	0.55
Rosedale Elementary	0.27	0.579375	0.76	0.55
Farrand Elementary School	0.32	0.47608	0.71	0.55
George Crockett Academy	0.97	-0.8874	0.14	0.55
Bad Axe High School	0.37	0.364008	0.66	0.55
oleon High School	0.41	0.287576	0.63	0.55
Harrison Park Elementary School	0.97	-0.88288	0.14	0.55
Wixom Elementary School	0.34	0.43126	0.69	0.55
Stockbridge High School	0.37	0.363894	0.66	0.55
Hyatt Elementary	0.35	0.41296	0.68	0.55
Forsythe Middle School	0.17	0.81388	0.83	0.55
Alcoc High School	0.4	0.300762	0.63	0.55
Lakewood Elementary School	0.17	0.81496	0.83	0.55
Kingsford Middle School	0.41	0.28234	0.62	0.55
Scotch Elementary School	0.15	0.86298	0.84	0.55
Algonquin Middle School	0.44	0.22196	0.59	0.55
Clarenceville High School	0.48	0.141314	0.55	0.55
Hale Creek Elementary School	0.84	-0.60115	0.23	0.55
Clare Primary School	0.57	-0.04465	0.46	0.55
Oriole Park Elementary School	0.58	-0.079175	0.45	0.55
Schuchard Elementary School	0.55	-0.01444	0.48	0.55
Mark C. Roose Elementary School	0.76	-0.43004	0.29	0.55
Great Oaks Academy	0.82	-0.55916	0.24	0.55
Pine Avenue Elementary School	0.6	-0.11305	0.43	0.55
Riverside Elementary School	0.59	-0.08994	0.44	0.55
Herbison Woods Elementary School	0.08	1.026275	0.88	0.55
Manton Consolidated High School	0.61	-0.126412	0.42	0.55
Coloma Middle School	0.65	-0.2186	0.38	0.55
Martell Elementary School	0.08	1.02812	0.88	0.55



Top to Bottom Ranking 177

Oway Middle School	0.64	-0.1889	0.39	0.55
Adrian Middle School 5/6 Building	0.65	-0.218825	0.38	0.55
Hillcrest Elementary School	0.66	-0.2376	0.37	0.55
Northville High School	0.05	1.090238	0.9	0.55
Beacon Tree Elementary School	0.06	1.06408	0.89	0.55
Dr. Charles Drew Academy	0.99	-0.9476	0.13	0.54
Thomas M. Ryan Intermediate School	0.24	0.631625	0.78	0.54
William C. Abney Academy	0.94	-0.830025	0.16	0.54
Walker Charter Academy	0.38	0.33174	0.65	0.54
Houghton Middle School	0.31	0.48312	0.71	0.54
Willow Hill Elementary School	0.29	0.52264	0.73	0.54
Reid Elementary School	0.22	0.6784	0.79	0.54
Mackiw City K-12 School	0.41	0.270633333	0.62	0.54
Ovid-Elsie Middle School	0.4	0.296425	0.63	0.54
Shields Elementary School	0.43	0.22798	0.6	0.54
Murray Lake Elementary	0.14	0.86214	0.84	0.54
Central High School	0.87	-0.684022	0.2	0.54
Chelsea High School	0.11	0.942156	0.86	0.54
Marie C. Graham Elem. School	0.53	0.01672	0.49	0.54
Eureka Heights Elementary School	0.79	-0.51398	0.26	0.54
Foreign Language Immersion and Cultural Studies	0.66	-0.25036	0.37	0.54
Glen Garner Elementary School	0.55	-0.02295	0.47	0.54
C.K. Schickler Elementary School	0.75	-0.42946	0.29	0.54
Bark River-Harris Elementary School	0.54	-0.00416	0.48	0.54
Elms Road Elementary School	0.58	-0.0929	0.44	0.54
Lawton Middle School	0.63	-0.1892	0.39	0.54
Buckley Community Schools	0.62	-0.163442	0.4	0.54
Eastside Elementary School	0.69	-0.3124	0.34	0.54
Mancelo Middle School	0.78	-0.5036	0.26	0.54
Communication and Media Arts HS	0.7	-0.328206	0.33	0.54
Fremont School	0.71	-0.3591	0.32	0.54
Carson City Elementary School	0.62	-0.168533333	0.4	0.54
Eastland Middle School	0.74	-0.42075	0.29	0.54
Meads Mill Middle School	0.07	1.03266	0.88	0.54
Grand Blanc Academy	1	-0.99194	0.12	0.53
Bridge Academy - Elementary	1	-0.98864	0.12	0.53
Oakland Intertiol Academy - Elementary	1	-0.973	0.12	0.53
Grant Elementary School	0.27	0.560625	0.75	0.53
Davisburg Elementary School	0.29	0.5114	0.73	0.53
Milford High School	0.27	0.560894	0.75	0.53
L'Anse Creuse Middle School - North	0.28	0.53004	0.74	0.53
Grosse Pointe North High School	0.18	0.757904	0.82	0.53
Page Elementary School	0.35	0.388525	0.67	0.53

Top to Bottom Ranking 178

Burton Middle School	0.94	-0.84864	0.15	0.53
Wilde Elementary School	0.38	0.32312	0.64	0.53
Malow Junior High School	0.16	0.809275	0.83	0.53
Kent City High School	0.41	0.262678	0.61	0.53
Roosevelt Elementary School	0.43	0.22044	0.59	0.53
Donley Elementary School	0.46	0.148475	0.56	0.53
Gros Cap School	0.47	0.1342	0.55	0.53
Whittemore-Prescott Elementary School	0.87	-0.6993	0.2	0.53
Stoney Creek High School	0.12	0.907032	0.85	0.53
Imlay City High School	0.48	0.10557	0.53	0.53
Fowler High School	0.12	0.90703	0.85	0.53
Gladwin Junior High School	0.54	-0.01302	0.48	0.53
Patterson Elementary School	0.56	-0.0654	0.46	0.53
Belding High School	0.54	-0.02262	0.47	0.53
Jennings Elementary School	0.6	-0.138375	0.42	0.53
Reeths-Puffer Intermediate Sch.	0.54	-0.02135	0.47	0.53
Bangor Central School	0.65	-0.24798	0.37	0.53
James Madison Elementary School	0.59	-0.122566667	0.42	0.53
Webster Elementary School	0.66	-0.264633333	0.36	0.53
Fennville Public High School	0.7	-0.352248	0.32	0.53
Mark Twain Elementary School	0.61	-0.1635	0.4	0.53
Orchard View Middle School	0.71	-0.37732	0.31	0.53
Ada Vista Elementary School	0.04	1.0868	0.89	0.53
Upton Middle School	0.2	0.69506	0.8	0.52
Will L. Lee School	0.36	0.354375	0.66	0.52
Robert B. Havens Elem. School	0.37	0.33156	0.65	0.52
Iron Mountain High School	0.27	0.546786	0.74	0.52
Columbia Central High School	0.37	0.32438	0.64	0.52
Jerome School	0.94	-0.8699	0.14	0.52
Torrey Hill Intermediate School	0.18	0.7515	0.81	0.52
Bennett Elementary School	0.9	-0.79176	0.17	0.52
Valley View Elementary School	0.15	0.81704	0.83	0.52
Clare Middle School	0.45	0.15328	0.56	0.52
North Sashabaw Elementary School	0.52	0.01854	0.49	0.52
Dexter High School	0.09	0.958574	0.87	0.52
McBain Elementary School	0.56	-0.069975	0.46	0.52
Washington Elementary School	0.56	-0.077875	0.45	0.52
Hopkins Elementary School	0.53	-0.01524	0.48	0.52
New Era Elementary School	0.77	-0.5071	0.26	0.52
University Preparatory Academy (PSAD)-High School	0.78	-0.526776	0.25	0.52
Watersmeet Township School	0.66	-0.28865	0.35	0.52
Davis Middle School	0.68	-0.31982	0.33	0.52
Harper Woods Middle School	0.73	-0.43245	0.28	0.52

Top to Bottom Ranking 179

Burton Elementary School	0.97	-0.95602	0.13	0.51
George Defer Elementary School	0.23	0.61128	0.77	0.51
Sali Intermediate 4 – 8	0.96	-0.93774	0.13	0.51
12th Street Elementary	0.24	0.5954	0.76	0.51
Yale Senior High School	0.31	0.444212	0.7	0.51
Douglas Road Elementary School	0.25	0.57472	0.75	0.51
Byron Center West Middle School	0.32	0.416925	0.69	0.51
Dundee Middle School	0.32	0.42584	0.69	0.51
Western High School	0.33	0.39203	0.68	0.51
Eaton Rapids Senior High School	0.36	0.335708	0.65	0.51
Vicksburg Middle School	0.34	0.371	0.67	0.51
Greenfield Elementary School	0.19	0.7007	0.8	0.51
Pierce Middle School	0.16	0.76728	0.82	0.51
Cesar Chavez High School	0.94	-0.881574	0.14	0.51
talie Kreeger Elementary School	0.38	0.29602	0.63	0.51
Heritage High School	0.35	0.36184	0.66	0.51
Joy Preparatory Academy	0.94	-0.88008	0.14	0.51
Carpenter School	0.41	0.22634	0.6	0.51
Lapeer East Senior High School	0.41	0.229992	0.6	0.51
Lake Shore High School	0.44	0.164454	0.57	0.51
Georgetown Elementary School	0.13	0.84488	0.84	0.51
Freeman School	0.92	-0.852075	0.15	0.51
Sherwood Elementary School	0.45	0.14655	0.56	0.51
Arthur Eddy K-8 Academy	0.92	-0.8573	0.15	0.51
Ottawa Elementary School	0.51	0.021375	0.5	0.51
Allen Academy	0.9	-0.814938	0.16	0.51
West Bendle Elementary School	0.89	-0.79036	0.17	0.51
Marquette Elementary School	0.89	-0.78842	0.17	0.51
Sturgis High School	0.48	0.085532	0.53	0.51
Delton-Kellogg Middle School	0.54	-0.03966	0.47	0.51
Bendle Middle School	0.86	-0.71816	0.19	0.51
Highlands School	0.48	0.07935	0.52	0.51
Springfield Plains Elem. School	0.12	0.86984	0.84	0.51
Edgemont Elementary School	0.57	-0.1025	0.44	0.51
Fern Persons Elementary School	0.47	0.1014	0.53	0.51
R. Grant Graham Elem. School	0.47	0.104825	0.53	0.51
Ionia High School	0.49	0.060352	0.51	0.51
Sodt Elementary School	0.51	0.014725	0.49	0.51
Palo Community School	0.79	-0.57055	0.24	0.51
Collins Elementary School	0.81	-0.614433333	0.22	0.51
Rogers High School	0.68	-0.331736	0.33	0.51
Lawrence Elementary School	0.63	-0.2383	0.37	0.51
Lakeport Elementary School	0.59	-0.144633333	0.41	0.51

Top to Bottom Ranking 180

Hart High School	0.59	-0.143724	0.41	0.51
Flynn Middle School	0.65	-0.27438	0.35	0.51
Eastlawn School	0.7	-0.3736	0.31	0.51
Mary D. Mitchell School	0.65	-0.2775	0.35	0.51
Holton Elementary School	0.78	-0.553775	0.24	0.51
Vassar Junior High School	0.63	-0.22905	0.37	0.51
Pierce School	0.73	-0.439	0.28	0.51
Keller Elementary	0.27	0.52046	0.73	0.5
Lowell Senior High School	0.3	0.458028	0.7	0.5
Linden High School	0.32	0.40231	0.68	0.5
Thorppe Kellogg Middle School	0.35	0.33676	0.65	0.5
Franklin School	0.9	-0.82704	0.16	0.5
John Glenn High School	0.39	0.251434	0.61	0.5
Pennfield Senior High School	0.41	0.216536	0.59	0.5
Meridian High School	0.38	0.284106	0.62	0.5
Bad Axe Middle School	0.45	0.13766	0.55	0.5
Shepherd Middle School	0.45	0.12968	0.55	0.5
Corun Middle School	0.5	0.02436	0.5	0.5
Kuehn-Haven Middle School	0.56	-0.10036	0.44	0.5
Pinconning Middle School	0.54	-0.051325	0.46	0.5
Elmwood Elementary School	0.53	-0.035025	0.47	0.5
Lawton Elementary School	0.57	-0.11328	0.43	0.5
Blair Elementary School	0.8	-0.61134	0.22	0.5
Kenwood Elementary School	0.74	-0.479375	0.27	0.5
Mancelo High School	0.63	-0.251256	0.36	0.5
White Cloud Junior High School	0.65	-0.29032	0.34	0.5
Harwood Elementary School	0.72	-0.43104	0.28	0.5
Tecumseh High School	0.22	0.60347	0.77	0.49
Glengary Elementary School	0.2	0.65572	0.79	0.49
Allendale High School	0.26	0.523444	0.73	0.49
Oakbrook Elementary School	0.33	0.37508	0.67	0.49
Baldwin Junior High School	0.95	-0.957333333	0.13	0.49
Romeo High School	0.24	0.570574	0.75	0.49
Parker Middle School	0.26	0.5202	0.73	0.49
Allendale Middle School	0.35	0.3327	0.65	0.49
Blissfield Middle School	0.34	0.35346	0.66	0.49
West Ward Elementary School	0.3	0.43094	0.69	0.49
Boynton Montessori Program	0.91	-0.8626	0.15	0.49
Cherry Creek Elementary School	0.31	0.414975	0.68	0.49
Haigh Elementary School	0.42	0.17736	0.57	0.49
Simonds Elementary School	0.46	0.09958	0.53	0.49
Meridian Junior High School	0.45	0.12658	0.54	0.49
Richards Middle School	0.49	0.0351	0.5	0.49

Top to Bottom Ranking 181

Bridgeport-Spaulling Middle School-Schrah	0.82	-0.674275	0.21	0.49
Walton Charter Academy	0.83	-0.69096	0.2	0.49
Campbell Elementary School	0.52	-0.02326	0.47	0.49
Reese Elementary School	0.56	-0.1048	0.43	0.49
Michigan Mathematics and Science Academy	0.76	-0.5328	0.25	0.49
Fife Lake Elementary School	0.76	-0.538975	0.25	0.49
Pine Island Elementary	0.58	-0.15328	0.41	0.49
Keicher Elementary School	0.61	-0.21696	0.38	0.49
Hatherly Elementary School	0.64	-0.27482	0.35	0.49
CA Frost Environmental Science Academy	0.63	-0.26588	0.36	0.49
Henry Ford Academy	0.66	-0.31715	0.33	0.49
Walker-Winter Elementary School	0.63	-0.265825	0.36	0.49
Jefferson Middle School	0.67	-0.3441	0.32	0.49
Grand Blanc Middle School East	0.21	0.61998	0.78	0.48
Carpenter Road School	0.97	-1.026366667	0.11	0.48
Edison Environmental Science Academy	0.95	-0.9859	0.12	0.48
Freeland Learning Center	0.21	0.61595	0.77	0.48
Royal Oak High School	0.27	0.483286	0.71	0.48
Cleveland Elementary School	0.93	-0.924933333	0.13	0.48
Hamlin Elementary School	0.26	0.50498	0.72	0.48
Sunset Lake Elementary School	0.38	0.24396	0.61	0.48
Midway Elementary School	0.38	0.247075	0.61	0.48
Raisinville School	0.39	0.22996	0.6	0.48
Cesar E. Chavez Elementary	0.94	-0.96036	0.12	0.48
Pine Ridge Elementary School	0.1	0.87745	0.85	0.48
Bates Elementary School	0.42	0.17114	0.57	0.48
Cornerstone Elementary School	0.1	0.8825	0.85	0.48
Kearsley High School	0.49	0.023632	0.5	0.48
Northpointe Academy	0.87	-0.8015	0.16	0.48
Unionville-Sebewaing Elem. School	0.53	-0.070125	0.46	0.48
Bendle High School	0.79	-0.61293	0.22	0.48
Woodside Elementary School	0.78	-0.60462	0.23	0.48
Morey Public School Academy	0.66	-0.33595	0.33	0.48
Dort Elementary School	0.79	-0.614975	0.22	0.48
Woodmont Academy	0.75	-0.54132	0.25	0.48
Lyons School	0.67	-0.36316	0.32	0.48
Cherry Street Intermediate School	0.75	-0.52465	0.25	0.48
Adrian Middle School 7/8 Building	0.66	-0.339475	0.32	0.48
Holland High School	0.6	-0.20308	0.38	0.48
North Star Academy	0.62	-0.257	0.36	0.48
Hartland Round Elementary School	0.22	0.5895	0.76	0.47
Power Upper Elementary School	0.31	0.390375	0.68	0.47
Bullock Creek High School	0.31	0.389546	0.68	0.47

Top to Bottom Ranking 182

Linden Middle School	0.31	0.39036	0.68	0.47
Marble School	0.17	0.70655	0.8	0.47
Cornell Elementary School	0.18	0.6832	0.79	0.47
Beechview Elementary School	0.27	0.47915	0.71	0.47
Spring Lake Middle School	0.24	0.5375	0.74	0.47
Phoenix Science and Technology Center	0.95	-0.99838	0.11	0.47
Sugarbush Elementary School	0.29	0.4216	0.69	0.47
Bemis Junior High School	0.29	0.427975	0.69	0.47
Munising High and Middle School	0.39	0.21091	0.59	0.47
Woodward Academy	0.88	-0.8303	0.16	0.47
John M. Barnes Elem. School	0.36	0.27328	0.62	0.47
Martin G. Atkins Elementary School	0.89	-0.85892	0.15	0.47
Tawas Area High School	0.44	0.114775	0.54	0.47
Chandler Park Academy - Elementary	0.89	-0.86558	0.15	0.47
Four Corners Montessori Academy	0.4	0.1954	0.58	0.47
Burton Glen Charter Academy	0.87	-0.80338	0.16	0.47
Seminole Academy	0.86	-0.78284	0.17	0.47
Fennville Elementary School	0.81	-0.67868	0.21	0.47
North Branch Middle School	0.5	-0.009425	0.48	0.47
Gudith Elementary School	0.49	0.00364	0.49	0.47
Northwest Elementary School	0.51	-0.04054	0.47	0.47
Huron Park Elementary School	0.83	-0.72388	0.19	0.47
Trillium Academy	0.53	-0.07655	0.45	0.47
Bedford School	0.79	-0.63662	0.22	0.47
Conner Creek Academy East-MI Collegiate High	0.77	-0.588738	0.23	0.47
Cardil Elementary	0.78	-0.61396	0.22	0.47
Bear Lake Elementary School	0.58	-0.1789	0.39	0.47
Ella M. White School	0.57	-0.16362	0.4	0.47
Central Middle School	0.65	-0.33358	0.33	0.47
Mesick Consolidated Jr/Sr High School	0.63	-0.279662	0.35	0.47
Elva Lynch Elementary School	0.57	-0.16638	0.4	0.47
Arcadia Elementary School	0.74	-0.52654	0.25	0.47
David Ellis Academy West	0.67	-0.37242	0.31	0.47
Floyd M. Jewett Elem. School	0.7	-0.4335	0.28	0.47
Leord Elementary School	0.26	0.48424	0.72	0.46
Country Elementary School	0.18	0.663	0.79	0.46
Walled Lake Northern High School	0.18	0.657328	0.79	0.46
Northern High School	0.15	0.742082	0.81	0.46
Hartland Village Elementary School	0.16	0.70705	0.8	0.46
Cherryland Middle School	0.36	0.26886	0.62	0.46
Elk Rapids High School	0.29	0.412602	0.68	0.46
Center Academy	0.9	-0.8877	0.14	0.46
Lakewood Middle School	0.4	0.1792	0.57	0.46

Top to Bottom Ranking 183

Lakeville Elementary School	0.41	0.15558	0.56	0.46
Pickford Elementary School	0.44	0.08772	0.53	0.46
Chormann Elem School	0.39	0.20034	0.58	0.46
Blissfield Elementary	0.44	0.09038	0.53	0.46
Cherry Creek Elementary School	0.43	0.12622	0.54	0.46
Pine Street Elementary	0.47	0.027025	0.5	0.46
Pittsford Area High School	0.5	-0.02519	0.47	0.46
Reeths-Puffer Elementary School	0.54	-0.11955	0.43	0.46
Colon High School	0.52	-0.07318	0.45	0.46
Seaton Elementary School	0.55	-0.13966	0.42	0.46
Harbor Lights Middle School	0.55	-0.1293	0.42	0.46
Berrien Springs High School	0.52	-0.081444	0.45	0.46
Taylor Parks Elementary School	0.79	-0.64464	0.21	0.46
Grandville Central Elementary School	0.58	-0.197	0.39	0.46
Eisenhower Elementary School	0.57	-0.17302	0.4	0.46
Merritt Elementary School	0.71	-0.4774	0.27	0.46
Weidman Elementary School	0.69	-0.42505	0.29	0.46
Alpine Elementary School	0.76	-0.578025	0.23	0.46
Richardson Elementary School	0.72	-0.49442	0.26	0.46
Chicago Street School	0.71	-0.47355	0.27	0.46
Springport Middle School	0.57	-0.1787	0.39	0.46
Caseville Middle School	0.62	-0.2751	0.35	0.46
Hope Academy	0.99	-1.11692	0.09	0.45
Business Entrepreneurship, Science, Tech. Academy	0.99	-1.10932	0.09	0.45
George Washington Carver Academy	0.97	-1.07382	0.1	0.45
Freeland Elementary School	0.21	0.58648	0.76	0.45
Pembroke Elementary School	0.15	0.7211	0.81	0.45
Hartland M.S. at Ore Creek	0.16	0.69055	0.8	0.45
Williamston Explorer Elementary School	0.27	0.4454	0.7	0.45
Lindemann Elementary School	0.23	0.53836	0.74	0.45
Herrick Park Elementary School	0.25	0.48585	0.72	0.45
North Aurelius Elementary School	0.27	0.44704	0.7	0.45
Haisley Elementary School	0.26	0.4702	0.71	0.45
Scranton Middle School	0.15	0.72475	0.81	0.45
Blanche Sims Elementary School	0.29	0.4058	0.68	0.45
Dansville High School	0.27	0.44469	0.7	0.45
Oakview Middle School	0.26	0.46806	0.71	0.45
Edwardsburg High School	0.33	0.316926	0.64	0.45
Hemlock Middle School	0.34	0.29628	0.63	0.45
McAlear-Sawden Elem. School	0.33	0.32116	0.64	0.45
Algonquin Middle School	0.38	0.20686	0.59	0.45
Harrington Elementary School	0.85	-0.79292	0.17	0.45
Miller Elementary School	0.85	-0.80352	0.16	0.45

Top to Bottom Ranking 184

Merrill Middle School	0.48	-0.00444	0.48	0.45
Cedar Springs Middle School	0.48	-0.008575	0.48	0.45
Manistee Middle School	0.52	-0.09408	0.44	0.45
Kolb Elementary School	0.55	-0.14592	0.41	0.45
Eastwood School	0.72	-0.51084	0.26	0.45
Escaba Middle School	0.52	-0.08738	0.44	0.45
Unionville-Sebewaing Middle School	0.53	-0.10706	0.43	0.45
Eau Claire High School	0.69	-0.440292	0.28	0.45
Morenci Elementary School	0.61	-0.276275	0.35	0.45
Michigan School for the Deaf ***	0.6	-0.2536	0.36	0.45
East Jordan Elementary School	0.66	-0.3876	0.31	0.45
Sycamore Elementary School	0.61	-0.270675	0.35	0.45
Riverside Elementary School	0.68	-0.42704	0.29	0.45
Fairview School	0.62	-0.29678	0.34	0.45
Baldwin Elementary School	0.96	-1.066175	0.1	0.44
Kenbrook Elementary School	0.21	0.56995	0.75	0.44
Nelson Elementary School	0.94	-1.018766667	0.11	0.44
Loon Lake Elementary School	0.24	0.50452	0.72	0.44
Ovid-Elsie High School	0.26	0.451794	0.7	0.44
Riverview Community High School	0.25	0.47358	0.71	0.44
Grass Lake High School	0.27	0.440918	0.69	0.44
Bay City Western High School	0.25	0.473042	0.71	0.44
Farmington High School	0.26	0.463124	0.7	0.44
Heavenrich School	0.92	-0.9733	0.12	0.44
Central High School	0.34	0.274374	0.62	0.44
Dekeyser Elementary School	0.34	0.27592	0.62	0.44
Wegienka Elementary School	0.35	0.2504	0.61	0.44
Lottie M. Schmidt Elem. School	0.32	0.32366	0.64	0.44
West Intermediate School	0.38	0.186175	0.58	0.44
Davison Elementary-Middle School	0.88	-0.87512	0.14	0.44
North Oakview Elementary School	0.39	0.173475	0.57	0.44
Verellen Elementary School	0.41	0.1279	0.55	0.44
West Middle School	0.4	0.15056	0.56	0.44
Port Huron Northern High School	0.39	0.164648	0.57	0.44
Edmonson Elementary School	0.42	0.11572	0.54	0.44
Ford Acad. for Comm/Perf Arts	0.84	-0.79602	0.17	0.44
Chester F. Miller School	0.8	-0.70235	0.2	0.44
George A. Lacure Elem. School	0.48	-0.01845	0.48	0.44
Wick Elementary School	0.8	-0.703475	0.2	0.44
Tri-Township School	0.45	0.04114	0.51	0.44
Norway Elementary School	0.5	-0.0538	0.46	0.44
Galesburg-Augusta Middle School	0.55	-0.1588	0.41	0.44
Fortis Academy	0.58	-0.2245	0.38	0.44



Top to Bottom Ranking 185

Standish-Sterling Middle School	0.53	-0.11978	0.43	0.44
Three Oaks Elementary School	0.63	-0.3287	0.33	0.44
Reading High School	0.54	-0.14183	0.41	0.44
North Elementary School	0.67	-0.412866667	0.3	0.44
North Shore Elementary	0.63	-0.3332	0.33	0.44
Marion High School	0.69	-0.46172	0.28	0.44
New Branches School	0.69	-0.4674	0.28	0.44
Constantine Middle School	0.69	-0.4602	0.28	0.44
Morley Elementary School	0.6	-0.27145	0.35	0.44
Walnut Hills Elementary School	0.72	-0.51946	0.25	0.44
Valleywood Middle School	0.73	-0.5462	0.24	0.44
Ferndale Middle School	0.66	-0.392175	0.3	0.44
Meachum Junior High School	0.6	-0.27554	0.35	0.44
Hoben Elementary School	0.18	0.61738	0.78	0.43
Northeast Middle School	0.22	0.53096	0.74	0.43
Portage Central Middle School	0.26	0.44464	0.7	0.43
Cook Elementary School	0.19	0.5988	0.76	0.43
Plymouth High School	0.12	0.768422	0.82	0.43
Pioneer Middle School	0.13	0.73532	0.81	0.43
Hamilton High School	0.22	0.529902	0.73	0.43
New Bedford Academy	0.32	0.30475	0.64	0.43
Meridian Elementary School	0.12	0.76746	0.82	0.43
Weston Preparatory Academy	0.91	-0.96275	0.12	0.43
Avondale Middle School	0.3	0.345775	0.66	0.43
A.C. Edgerton Elementary School	0.41	0.1131	0.54	0.43
North Elementary School	0.43	0.075466667	0.52	0.43
Crossroads Middle School	0.44	0.0477	0.51	0.43
Otsego Middle School	0.39	0.15436	0.56	0.43
Lakeview Middle School	0.45	0.02944	0.5	0.43
Tyrone Elementary School	0.81	-0.73672	0.19	0.43
Bridgman Elementary School	0.44	0.047075	0.51	0.43
Plumbrook Elementary School	0.43	0.06628	0.52	0.43
Reeths-Puffer High School	0.43	0.065014	0.52	0.43
Merritt Academy	0.41	0.12068	0.54	0.43
Potter School	0.84	-0.80378	0.16	0.43
Alma Senior High School	0.43	0.068736	0.52	0.43
Bay City Central High School	0.5	-0.079352	0.45	0.43
Fremont Middle School	0.51	-0.09934	0.44	0.43
Mason County Eastern Junior High/High School	0.75	-0.59571	0.23	0.43
Concord Middle School	0.52	-0.11772	0.43	0.43
Lincoln Elementary School	0.55	-0.176833333	0.4	0.43
Christa McAuliffe Middle School	0.51	-0.09688	0.44	0.43
Beaumont Elementary School	0.53	-0.13498	0.42	0.43

Top to Bottom Ranking 186

Oakley W. Best Middle School	0.69	-0.47764	0.27	0.43
Julian O. Strong Middle School	0.7	-0.50376	0.26	0.43
Brown City Elementary School	0.63	-0.33932	0.32	0.43
Charles A. Poupard Elem. School	0.58	-0.25034	0.37	0.43
Beer Middle School	0.6	-0.27896	0.35	0.43
Wolfe Middle School	0.65	-0.38832	0.3	0.43
Jane Addams Elementary School	0.53	-0.14118	0.41	0.43
Academy of Warren	0.99	-1.1701	0.08	0.42
Clear Lake Elementary School	0.18	0.60178	0.77	0.42
Thompson Middle School	0.93	-1.01914	0.11	0.42
Longfellow School	0.95	-1.0724	0.1	0.42
Schoolcraft High School	0.18	0.60373	0.77	0.42
Lake Orion Community High School	0.19	0.58481	0.76	0.42
Woodrow Wilson Elementary School	0.93	-1.02684	0.11	0.42
Belmont Elementary School	0.14	0.71066	0.8	0.42
Frank E. Bartlett School	0.26	0.43164	0.69	0.42
vigator School	0.25	0.444175	0.7	0.42
Belle Ann Elementary School	0.24	0.47485	0.71	0.42
State Road Elementary School	0.28	0.37742	0.67	0.42
Hastings High School	0.31	0.308178	0.64	0.42
Erie Elementary School	0.28	0.37732	0.67	0.42
Almont Middle School	0.32	0.29902	0.63	0.42
Dundee Elementary School	0.33	0.2699	0.62	0.42
Timberland Academy	0.89	-0.9253	0.13	0.42
Marshall Middle School	0.34	0.25494	0.61	0.42
Michener Elementary School	0.86	-0.86325	0.15	0.42
Ottawa Hills High School	0.88	-0.912552	0.13	0.42
Academy of Westland	0.88	-0.91304	0.13	0.42
East	0.78	-0.68126	0.21	0.42
Dryden Elementary School	0.38	0.1604	0.56	0.42
Fred W. Ritter Elementary School	0.5	-0.08518	0.45	0.42
Miami Elementary School	0.42	0.07428	0.52	0.42
oleon Middle School	0.45	0.00888	0.49	0.42
Gladiola Elementary School	0.78	-0.682075	0.2	0.42
Memphis Junior High School	0.45	0.01948	0.49	0.42
Godwin Heights Senior High School	0.73	-0.570672	0.24	0.42
Nowlin Elementary School	0.53	-0.156	0.41	0.42
Vandercook Lake High School	0.51	-0.105574	0.43	0.42
Carson City-Crystal Middle School	0.52	-0.13454	0.42	0.42
Washington Elementary School	0.49	-0.07394	0.45	0.42
Eugene M. Nikkari Elementary	0.64	-0.38622	0.31	0.42
Roscommon Elementary School	0.64	-0.37945	0.31	0.42
Laurus Academy	0.7	-0.51394	0.26	0.42

Top to Bottom Ranking 187

Custer Elementary School	0.58	-0.26452	0.36	0.42
Parchment Northwood Elem. School	0.56	-0.21065	0.38	0.42
Carman-Ainsworth High School	0.62	-0.3382	0.32	0.42
Holton High School	0.64	-0.391028	0.3	0.42
Mid-Michigan Leadership Academy	0.96	-1.105075	0.09	0.41
Lincoln Intertiol Studies School	0.96	-1.11284	0.09	0.41
Sorter Intertiol Elementary School	0.94	-1.0575	0.1	0.41
Riverside Middle School	0.95	-1.0872	0.09	0.41
Dryden High School	0.29	0.34968	0.66	0.41
E.F. Rittmueller Middle School	0.18	0.59658	0.76	0.41
Whiteford Elementary School	0.22	0.50324	0.72	0.41
Woodhaven High School	0.31	0.30526	0.64	0.41
McCulloch School	0.93	-1.038833333	0.1	0.41
Hudsonville High School	0.2	0.552642	0.74	0.41
Oak Valley Middle School	0.23	0.47788	0.71	0.41
Lafayette School	0.9	-0.96144	0.12	0.41
Tecumseh Middle School	0.29	0.34028	0.65	0.41
Birch Run High School	0.31	0.29497	0.63	0.41
Fiegel Elementary School	0.37	0.16448	0.57	0.41
L'Anse Creuse Middle School - Central	0.4	0.10956	0.54	0.41
Scott School	0.86	-0.87516	0.14	0.41
Charlevoix Middle School	0.41	0.08582	0.53	0.41
Hiller Elementary School	0.83	-0.8103	0.16	0.41
Cleveland Elementary School	0.43	0.039875	0.51	0.41
Romulus Elementary School	0.82	-0.79212	0.17	0.41
Arrowwood Elementary School	0.44	0.02248	0.5	0.41
Patrick Hamilton Elementary	0.8	-0.7424	0.18	0.41
Old Redford Academy – High	0.75	-0.63888	0.22	0.41
Prairieview School	0.73	-0.593766667	0.23	0.41
Zilwaukee K-8 School	0.73	-0.59974	0.23	0.41
East Leroy Elementary School	0.52	-0.1429	0.41	0.41
Imlay City Middle School	0.52	-0.14374	0.41	0.41
Colonel Dold McMogle Elementary School	0.73	-0.59668	0.23	0.41
Standish-Sterling Central High School	0.5	-0.109684	0.43	0.41
Standish Elementary School	0.57	-0.25865	0.36	0.41
Tenniswood Elementary School	0.58	-0.26996	0.35	0.41
Floyd School	0.53	-0.1673	0.4	0.41
Lillian Fletcher Elem. School	0.62	-0.366075	0.32	0.41
Hudson Middle School	0.56	-0.23572	0.37	0.41
Townsend North School	0.65	-0.4293	0.29	0.41
Armstrong Middle School	0.59	-0.2927	0.34	0.41
Hunt Elementary School	0.91	-1.00436	0.11	0.4
Vernor Elementary School	0.89	-0.95786	0.13	0.4

Top to Bottom Ranking 188

Novi Meadows School	0.1	0.75785	0.82	0.4
Herig School	0.9	-0.97782	0.12	0.4
Harbor Springs High School	0.29	0.330014	0.65	0.4
Eisenhower High School	0.1	0.763294	0.82	0.4
Hancock Middle School	0.18	0.57196	0.75	0.4
Franklin High School	0.31	0.285496	0.63	0.4
Jenison High School	0.21	0.505406	0.72	0.4
Smith Elementary School	0.06	0.85288	0.84	0.4
United Oaks Elementary School	0.84	-0.8466	0.15	0.4
Maple City-Glen Lake Jr/Sr High School	0.33	0.23693	0.6	0.4
Paw Paw Middle School	0.42	0.05236	0.51	0.4
Landmark Academy	0.44	0.0014875	0.49	0.4
Byron Area Middle School	0.42	0.04442	0.51	0.4
Weiss Elementary School	0.47	-0.05896	0.46	0.4
Alpe High School	0.42	0.050992	0.51	0.4
Jefferson Elementary 5th/6th	0.43	0.03415	0.5	0.4
Montague High School	0.44	0.002508	0.49	0.4
Lamora Park School	0.8	-0.760225	0.17	0.4
Webberville Elementary School	0.46	-0.03338	0.47	0.4
Gier Park School	0.79	-0.74726	0.18	0.4
Mt. Morris Junior High School	0.79	-0.74576	0.18	0.4
Coleman Elementary School	0.58	-0.28108	0.35	0.4
Legg Middle School	0.58	-0.28656	0.35	0.4
Leota Fiedler Elementary School	0.61	-0.3589	0.32	0.4
Tekonsha Elementary School	0.73	-0.60825	0.22	0.4
Windemere Park Charter Academy	0.54	-0.19996	0.38	0.4
Kalkaska Middle School	0.63	-0.4024	0.3	0.4
Warren Woods Middle School	0.6	-0.32464	0.33	0.4
Macatawa Bay Middle School	0.54	-0.20308	0.38	0.4
Madison Elementary School	0.63	-0.38988	0.3	0.4
Cedar Crest Elementary School	0.7	-0.55514	0.24	0.4
Stone School	0.94	-1.098933333	0.09	0.39
Parcells Middle School	0.24	0.4272	0.69	0.39
Walled Lake Central High School	0.26	0.384476	0.67	0.39
Meadow Ridge Elementary School	0.26	0.37546	0.67	0.39
Superior Hills Elementary School	0.29	0.311975	0.64	0.39
Anchor Bay Middle School South	0.34	0.2062	0.59	0.39
Ealy Elementary School	0.34	0.20676	0.59	0.39
Grass Lake Middle School	0.33	0.22604	0.6	0.39
Creekside Middle School	0.35	0.18952	0.58	0.39
William D. Miller Elem. School	0.36	0.16452	0.57	0.39
Whitehall Senior High School	0.36	0.156244	0.56	0.39
Andrew G. Schmidt Middle School	0.34	0.20056	0.58	0.39

Top to Bottom Ranking 189

Davis Junior High School	0.35	0.182225	0.57	0.39
Portage North Middle School	0.39	0.09026	0.53	0.39
Eaton Rapids Middle School	0.41	0.0472	0.51	0.39
Eau Claire Middle School	0.79	-0.75656	0.18	0.39
Hillsdale High School	0.46	-0.061492	0.46	0.39
Swartz Creek High School	0.4	0.07462	0.52	0.39
Hoover Elementary School	0.78	-0.73682	0.18	0.39
Atherton High School	0.72	-0.607496	0.23	0.39
Hillside Elementary School	0.73	-0.62624	0.22	0.39
Centreville Middle School	0.5	-0.1386	0.42	0.39
Anpolis High School	0.52	-0.168666	0.4	0.39
Jefferson Elementary School	0.53	-0.19974	0.39	0.39
Reese Middle School	0.5	-0.13506	0.42	0.39
Pontiac Academy for Excellence - High School	0.7	-0.564776	0.24	0.39
Franklin Elementary School	0.62	-0.3846	0.31	0.39
Riverview Elementary School	0.64	-0.426175	0.29	0.39
Pentwater Public School	0.55	-0.230725	0.37	0.39
West Utica Elementary School	0.67	-0.50492	0.26	0.39
Kingston Elementary School	0.7	-0.5588	0.24	0.39
Crossroads Charter Academy (PK-6)	0.65	-0.45348	0.28	0.39
Northglade Montessori School	0.72	-0.611475	0.22	0.39
Lake Center Elementary School	0.17	0.56888	0.75	0.38
Detroit Community Schools-Elementary	0.9	-1.02502	0.11	0.38
Shelby Junior High School	0.15	0.60435	0.77	0.38
Sherwood Global Studies Academy	0.91	-1.05674	0.1	0.38
Hanover-Horton High School	0.25	0.38696	0.67	0.38
Sheiko Elementary School	0.22	0.45642	0.7	0.38
Dundee Community High School	0.26	0.36281	0.66	0.38
Henry Ford II High School	0.23	0.442116	0.69	0.38
Glencairn School	0.27	0.34435	0.65	0.38
St. Johns Middle School	0.31	0.25252	0.61	0.38
Huron Elementary School	0.38	0.108	0.54	0.38
Wall School	0.79	-0.7814	0.17	0.38
Leslie High School	0.36	0.145784	0.55	0.38
Cromie Elementary School	0.44	-0.03286	0.47	0.38
Muskegon High School	0.8	-0.798444	0.16	0.38
Southeast Kelloggsville School	0.81	-0.8319	0.15	0.38
Tomlinson Middle School	0.78	-0.75978	0.17	0.38
Manistee High School	0.43	-0.009186	0.48	0.38
Hoover School	0.71	-0.5964	0.23	0.38
Pine River High School	0.49	-0.125646	0.42	0.38
Baldwin Heights School	0.52	-0.1928	0.39	0.38
Lemmer Elementary School	0.51	-0.170975	0.4	0.38

Top to Bottom Ranking 190

Weston Elementary School	0.59	-0.34745	0.32	0.38
Loren Eyler Elementary School	0.55	-0.25642	0.36	0.38
Dieck Elementary School	0.57	-0.29074	0.34	0.38
Hinks School	0.56	-0.28385	0.35	0.38
Congress Elementary	0.98	-1.222	0.07	0.37
Law Elementary School	0.93	-1.1037	0.09	0.37
Detroit Community Schools-High School	0.89	-1.034934	0.11	0.37
Cityside Middle School	0.25	0.36808	0.67	0.37
Stevenson High School	0.12	0.654278	0.78	0.37
Ida High School	0.21	0.464	0.7	0.37
Clark, J.E. Preparatory Academy	0.88	-1.00764	0.11	0.37
Zeeland West High School	0.23	0.412228	0.68	0.37
Hevel Elementary	0.27	0.325	0.64	0.37
Lee Elementary School	0.32	0.226	0.6	0.37
Pleasant Lake Elementary School	0.33	0.1946	0.58	0.37
Sand Creek High School	0.32	0.21743	0.59	0.37
Spain Elementary-Middle School	0.8	-0.81314	0.16	0.37
Bennie Elementary School	0.36	0.12766	0.55	0.37
Laker High School	0.42	0.006664	0.49	0.37
North Elementary School	0.37	0.1097	0.54	0.37
Academy of The Americas	0.8	-0.81204	0.16	0.37
Carrollton Elementary School	0.8	-0.82158	0.16	0.37
North Sagiw Charter Academy	0.81	-0.84804	0.15	0.37
West Elementary School	0.73	-0.668	0.21	0.37
Camden-Frontier K-8 School	0.54	-0.24862	0.37	0.37
Sanborn School	0.65	-0.491225	0.27	0.37
Bad Axe Elementary School	0.51	-0.1831	0.39	0.37
Brookwood Elementary	0.67	-0.5287	0.25	0.37
St. Louis High School	0.46	-0.090032	0.44	0.37
Dix Street Elementary School	0.48	-0.12292	0.42	0.37
Durand Area High School	0.5	-0.160914	0.4	0.37
Central Elementary School	0.48	-0.121733333	0.42	0.37
River Valley Middle School	0.61	-0.40628	0.3	0.37
Baseline Middle School	0.57	-0.3086	0.34	0.37
William G. Mather Elementary School	0.55	-0.27926	0.35	0.37
Sullivan Elementary School	0.61	-0.38958	0.3	0.37
Ross Beatty High School	0.57	-0.32068	0.33	0.37
Bryant Elementary School	0.91	-1.0878	0.09	0.36
Universal Learning Academy	0.9	-1.07556	0.1	0.36
South Meadows Elementary School	0.12	0.645175	0.78	0.36
Eriksson Elementary School	0.22	0.4231	0.69	0.36
Romeo Middle School	0.25	0.35338	0.66	0.36
Portage Central High School	0.18	0.500528	0.72	0.36

Top to Bottom Ranking 191

Walnut Creek Middle School	0.27	0.32082	0.64	0.36
Covell Elementary	0.87	-1.00374	0.11	0.36
Abbot School	0.34	0.1543	0.56	0.36
Springfield Middle School	0.81	-0.86412	0.15	0.36
Bellview Elementary School	0.78	-0.79588	0.17	0.36
Grand Rapids University Preparatory Academy	0.8	-0.84	0.15	0.36
Marine City Middle School	0.4	0.03892	0.5	0.36
Walt Disney Elementary School	0.38	0.0836	0.52	0.36
Concord High School	0.44	-0.062528	0.46	0.36
Garfield Elementary School	0.71	-0.6413	0.22	0.36
L'Anse Creuse Middle School - South	0.46	-0.0971	0.44	0.36
Alba School	0.77	-0.7646	0.17	0.36
Springview Elementary School	0.46	-0.0928	0.44	0.36
Summit Academy North High School	0.44	-0.058918	0.46	0.36
Mason Middle School	0.53	-0.24094	0.37	0.36
Akron-Fairgrove Elem. School	0.67	-0.53885	0.25	0.36
Belding Middle School	0.64	-0.47914	0.27	0.36
Delton-Kellogg High School	0.47	-0.12292	0.42	0.36
Lake City Middle School	0.68	-0.56642	0.24	0.36
Mackiw Trail Middle School	0.59	-0.379225	0.31	0.36
Avalon Elementary School	0.62	-0.44282	0.28	0.36
Clarenceville Middle School	0.55	-0.28948	0.34	0.36
Blanchette Middle School	0.99	-1.3006	0.06	0.35
Mohawk Elementary School	0.14	0.57872	0.76	0.35
Northeastern Elementary School	0.9	-1.0816	0.1	0.35
Emerson Elementary-Middle School	0.91	-1.101066667	0.09	0.35
Zeeland East High School	0.19	0.467492	0.71	0.35
Steele School	0.87	-1.02288	0.11	0.35
Bedford Senior High School	0.24	0.36144	0.66	0.35
Mattawan Middle School	0.18	0.48248	0.71	0.35
Bloomfield Hills Andover H.S.	0.09	0.683596	0.79	0.35
Pine Knob Elementary School	0.31	0.21292	0.59	0.35
Oxford Area Middle School	0.25	0.3438	0.65	0.35
Spring Valley Center for Exploration	0.85	-0.9651	0.12	0.35
Wyandot Middle School	0.31	0.20418	0.59	0.35
Emma V. Lobbestael Elem. School	0.34	0.15148	0.56	0.35
Northside Elementary School	0.4	0.0211	0.5	0.35
Capac High School	0.36	0.101736	0.53	0.35
Richmond Middle School	0.36	0.10282	0.53	0.35
Sault Area High School	0.36	0.105182	0.53	0.35
Kaiser Elementary School	0.78	-0.80768	0.16	0.35
Pinckney Elementary School	0.38	0.0588	0.51	0.35
Wayland High School	0.42	-0.022274	0.47	0.35

Top to Bottom Ranking 192

Jack Harvey Elementary School	0.46	-0.11852	0.43	0.35
Madison Academy	0.74	-0.72786	0.19	0.35
Carman-Ainsworth Middle School	0.74	-0.7175	0.19	0.35
Cherry Knoll Elementary School	0.43	-0.05664	0.46	0.35
Dearborn High School	0.45	-0.102066	0.44	0.35
Turrill Elementary School	0.68	-0.5863	0.23	0.35
Harmon Elementary School	0.67	-0.57604	0.24	0.35
Beaverton High School	0.48	-0.152694	0.41	0.35
Prevail Academy	0.63	-0.4881	0.27	0.35
Roscommon High School	0.55	-0.301214	0.34	0.35
McComb Elementary School	0.69	-0.60955	0.22	0.35
Galesburg-Augusta Primary School	0.54	-0.281266667	0.35	0.35
Cheboygan Area High School	0.56	-0.323126	0.33	0.35
Maple Valley Jr/Sr High School	0.5	-0.20143	0.38	0.35
Kennedy Middle School	0.5	-0.20586	0.38	0.35
Greenville Middle School	0.53	-0.27052	0.35	0.35
Gerald R. Ford Middle School	0.99	-1.30732	0.06	0.34
Detroit Midtown Academy	0.94	-1.1891	0.08	0.34
Dickinson West Elementary School	0.91	-1.11742	0.09	0.34
St. Clair Middle School	0.26	0.30446	0.64	0.34
Chatfield School	0.2	0.41896	0.69	0.34
Beecher Middle School Academy	0.86	-1.009775	0.11	0.34
Frost Middle School	0.27	0.2793	0.62	0.34
Parke Lane Elementary School	0.07	0.70985	0.8	0.34
East Lansing High School	0.28	0.25836	0.61	0.34
Coopersville Middle School	0.34	0.13464	0.55	0.34
Grandville High School	0.3	0.20618	0.59	0.34
Eugene B. Elliott Elem. School	0.79	-0.853875	0.15	0.34
Central Middle School	0.4	0.004525	0.49	0.34
Carrollton Middle School	0.75	-0.75182	0.18	0.34
Swan Valley Middle School	0.38	0.03742	0.5	0.34
Harrison Middle School	0.76	-0.78822	0.17	0.34
Richard C. Hedke Elem. School	0.37	0.06274	0.51	0.34
South Maple Elementary School	0.49	-0.198633333	0.39	0.34
Charlotte Middle School	0.44	-0.08906	0.44	0.34
Coldwater High School	0.48	-0.174226	0.4	0.34
Grand Rapids Montessori Public School	0.65	-0.53945	0.25	0.34
Reeths-Puffer Middle School	0.55	-0.31615	0.33	0.34
Orchard View High School	0.63	-0.5048	0.26	0.34
Robert Kerr School	0.55	-0.33315	0.33	0.34
North Ohio Elementary School	0.55	-0.327733333	0.33	0.34
Fuller Street Elementary School	0.63	-0.496733333	0.26	0.34
Grant Elementary School	0.6	-0.432975	0.28	0.34



Top to Bottom Ranking 193

Philip Latendresse School	0.58	-0.39382	0.3	0.34
Commonwealth Community Development Academy	0.99	-1.339425	0.06	0.33
Holmes, A.L. Elementary-Middle School	0.94	-1.21648	0.07	0.33
Wilkinson Middle School	0.86	-1.01958	0.11	0.33
Memphis Elementary School	0.22	0.37296	0.67	0.33
Pleasant Ridge Elementary School	0.12	0.581066667	0.76	0.33
Lake Fenton High School	0.14	0.530312	0.74	0.33
Longacre Elementary School	0.16	0.49205	0.72	0.33
Richland Elementary School	0.28	0.2409	0.6	0.33
Mound Park Elementary School	0.79	-0.8617	0.15	0.33
Royal Oak Middle School	0.3	0.20122	0.58	0.33
Onsted Middle School	0.34	0.11672	0.54	0.33
Dudley School	0.8	-0.88338	0.14	0.33
Summerfield Elementary School	0.31	0.17886	0.57	0.33
Oakland Academy	0.33	0.1372	0.55	0.33
Southgate Anderson High School	0.37	0.046254	0.51	0.33
Gladstone Area Middle School	0.4	-0.0135	0.48	0.33
Greenville Senior High School	0.44	-0.098718	0.44	0.33
Sixth Grade Academy	0.73	-0.738966667	0.18	0.33
Swartz Creek Middle School	0.48	-0.19664	0.39	0.33
Oway Senior High School	0.58	-0.405346	0.3	0.33
Interlochen Elementary School	0.68	-0.639166667	0.22	0.33
Gateway Elementary School	0.51	-0.25764	0.36	0.33
Forest Park School	0.5	-0.228035	0.37	0.33
Monroe Elementary School	0.53	-0.29588	0.34	0.33
Pathfinder Elementary School	0.57	-0.387833333	0.3	0.33
Shelters Elementary School	0.61	-0.46942	0.27	0.33
Discovery Arts and Technology PSA	1	-1.382433333	0.05	0.32
Mark Twain Elementary-Middle School	0.93	-1.21246	0.08	0.32
Nsoroma Institute	0.9	-1.13262	0.09	0.32
Mount Clemens Junior High School	0.87	-1.078175	0.1	0.32
Richmond Community High School	0.23	0.326752	0.65	0.32
Robeson Academy, Malcolm X Academy	0.84	-0.99288	0.12	0.32
Rogers City High School	0.19	0.407844	0.68	0.32
Westwoods Elementary School	0.27	0.2502	0.61	0.32
Ojibwe Charter School	0.78	-0.86125	0.15	0.32
Edward "Duke" Ellington Elementary-Middle School	0.8	-0.91816	0.13	0.32
Roseville Middle School	0.79	-0.898575	0.14	0.32
Lowell Middle School	0.35	0.07938	0.52	0.32
Mason Senior High School	0.39	-0.018438	0.48	0.32
Hoover Middle School	0.76	-0.81675	0.16	0.32
Haverhill Elementary School	0.43	-0.09146	0.44	0.32
Holland Elementary School	0.71	-0.70884	0.19	0.32

Top to Bottom Ranking 194

Sault Area Middle School	0.46	-0.16084	0.41	0.32
East Jordan High School	0.48	-0.211568	0.38	0.32
Wayne Memorial High School	0.62	-0.510005	0.26	0.32
Morenci Area High School	0.54	-0.33599	0.33	0.32
Suttons Bay Elementary School	0.62	-0.5062	0.26	0.32
Michigan School for the Deaf ***	0.5	-0.2536	0.36	0.32
Michigan School for the Deaf ***	0.5	-0.2536	0.36	0.32
Michigan School for the Deaf ***	0.5	-0.2536	0.36	0.32
Michigan School for the Deaf ***	0.5	-0.2536	0.36	0.32
Washington Elementary School	0.61	-0.4917	0.26	0.32
Thunder Bay Junior High School	0.53	-0.315475	0.33	0.32
Bay County PSA	0.99	-1.3856	0.05	0.31
Wylie Elementary School	0.11	0.56805	0.75	0.31
East Olive Elementary School	0.1	0.5901	0.76	0.31
Roguewood Elementary School	0.21	0.3536	0.66	0.31
Novi High School	0.09	0.614784	0.77	0.31
Manchester High School	0.19	0.394812	0.68	0.31
Laingsburg High School	0.21	0.347572	0.66	0.31
Creston High School	0.82	-0.97802	0.12	0.31
Crockett High School	0.82	-0.99041	0.12	0.31
L'Anse Creuse High School - North	0.29	0.184488	0.58	0.31
Walden Green Montessori	0.29	0.18415	0.58	0.31
Ojibwa Elementary School	0.26	0.24954	0.61	0.31
Edison Elementary School	0.8	-0.93115	0.13	0.31
Meryl S. Colt Elementary School	0.26	0.24015	0.6	0.31
Wiley Elementary School	0.35	0.05732	0.51	0.31
Central Elementary School	0.37	0.02028	0.5	0.31
Reese High School	0.34	0.07722	0.52	0.31
Indian Woods Elementary School	0.35	0.05424	0.51	0.31
Waterloo School	0.76	-0.8536	0.15	0.31
Flat Rock Community High School	0.39	-0.02441	0.47	0.31
McMillan Elementary School	0.73	-0.77065	0.17	0.31
Meadowbrook Elementary School	0.38	-0.01472	0.48	0.31
Olivet Middle School	0.44	-0.13746	0.42	0.31
Highland Elementary School	0.43	-0.11518	0.43	0.31
Corun High School	0.45	-0.150046	0.41	0.31
Addison Jr/Sr High School	0.41	-0.07345	0.45	0.31
Holly Middle School	0.43	-0.116	0.43	0.31
Anderson Elementary School	0.49	-0.2441	0.37	0.31
Bradford Academy	0.67	-0.651018	0.21	0.31
Fillmore Elementary School	0.51	-0.28354	0.35	0.31
Ionia Middle School	0.6	-0.48886	0.27	0.31
Farwell Middle School	0.63	-0.55938	0.24	0.31

Top to Bottom Ranking 195

Central Lake Public School	0.53	-0.327634	0.33	0.31
Inland Lakes Elementary School	0.61	-0.50805	0.26	0.31
Minges Brook School	0.47	-0.201725	0.38	0.31
Thomas Jefferson Elem. School	0.57	-0.429366667	0.29	0.31
Washington Writers' Academy	0.97	-1.35334	0.06	0.3
Moon Elementary School	0.96	-1.32398	0.06	0.3
Webster Elementary School	0.89	-1.17356	0.08	0.3
Garvey Academy	0.87	-1.10582	0.09	0.3
Chesaning Union High School	0.2	0.351104	0.66	0.3
Woods Lake Elementary:A Magnet Center For The Arts	0.84	-1.0526	0.1	0.3
Seneca Middle School	0.2	0.35726	0.66	0.3
Iroquois Middle School	0.22	0.3084	0.64	0.3
Boyd W. Arthurs Middle School	0.25	0.2439	0.61	0.3
St. Johns High School	0.23	0.294132	0.63	0.3
Hamilton Parsons Elem. School	0.27	0.20602	0.59	0.3
Otsego High School	0.33	0.08556	0.53	0.3
Einstein Elementary School	0.77	-0.89788	0.14	0.3
East Middle School	0.32	0.1058	0.53	0.3
Byron Center Charter School	0.3	0.144	0.55	0.3
Johnson Elementary School	0.31	0.11986	0.54	0.3
Roosevelt High School	0.39	-0.050498	0.46	0.3
Clinton Elementary School	0.33	0.0828	0.52	0.3
Joseph C. Sterling Elem. School	0.46	-0.1959	0.39	0.3
Fox Elementary School	0.43	-0.13292	0.42	0.3
Lewton School	0.64	-0.599325	0.23	0.3
Emerson School	0.63	-0.56966	0.24	0.3
Caro High School	0.47	-0.216162	0.38	0.3
Pennfield Middle School	0.51	-0.30584	0.34	0.3
Big Rapids Middle School	0.59	-0.48594	0.27	0.3
North Elementary School	0.49	-0.2517	0.36	0.3
Huron Academy	0.52	-0.3197	0.33	0.3
Wayland Union Middle School	0.45	-0.1775	0.39	0.3
Burr Elementary School	0.56	-0.42404	0.29	0.3
Dickinson East Elementary School	0.94	-1.31632	0.06	0.29
Houghton Elementary School	0.93	-1.296	0.06	0.29
Dort School	0.91	-1.22604	0.07	0.29
Northeast Elementary School	0.89	-1.19318	0.08	0.29
Woodland School	0.14	0.470325	0.71	0.29
Dakota High School	0.2	0.339828	0.65	0.29
Keystone Academy	0.27	0.19324	0.58	0.29
Willow School	0.78	-0.9339	0.13	0.29
Arts Academy in the Woods	0.35	0.02228	0.5	0.29
Webb Elementary School	0.79	-0.96486	0.12	0.29

Top to Bottom Ranking 196

Lapeer West Senior High School	0.36	-0.002102	0.49	0.29
Lincoln Park Elementary School	0.38	-0.03278	0.47	0.29
Alamo Elementary School	0.35	0.02542	0.5	0.29
Milton C. Porter Ed. Center	0.36	9.00E-04	0.49	0.29
West Senior High	0.32	0.078772	0.52	0.29
Brown Elementary School	0.39	-0.07012	0.46	0.29
Onsted Community High School	0.3	0.124586	0.54	0.29
Harrison Community High School	0.69	-0.725862	0.19	0.29
Cooper Upper Elementary School	0.36	-0.00415	0.48	0.29
Belleville High School	0.4	-0.089672	0.44	0.29
Twin Lake School	0.44	-0.167425	0.4	0.29
E.E. Knight Elementary School	0.41	-0.10452	0.43	0.29
P.D. Graham Elementary School	0.43	-0.1518	0.41	0.29
Woodside Elementary School	0.47	-0.23518	0.37	0.29
Republic-Michigamme School	0.54	-0.3827	0.31	0.29
Macughton School	0.58	-0.477666667	0.27	0.29
Edgewood Elementary School	0.56	-0.42734	0.29	0.29
Pleasant View Magnet School	0.57	-0.44934	0.28	0.29
Martin High School	0.48	-0.257282	0.36	0.29
Ogemaw Heights High School	0.51	-0.325036	0.33	0.29
Benzie Central Middle School	0.49	-0.27925	0.35	0.29
Grant Middle School	0.56	-0.43208	0.28	0.29
Martin Luther King Leadership Academy	0.97	-1.41444	0.05	0.28
Washington School	0.89	-1.21034	0.08	0.28
Alcott School	0.89	-1.21344	0.07	0.28
Bunker Middle School	0.86	-1.13406	0.09	0.28
Anchor Bay High School	0.24	0.242316	0.6	0.28
Bunche Elementary-Middle School	0.8	-1.000133333	0.11	0.28
J.A. Lanigan Elementary School	0.41	-0.1195	0.43	0.28
Lincoln Park Middle School	0.76	-0.910175	0.13	0.28
Roosevelt Primary School	0.71	-0.793933333	0.17	0.28
Climax-Scotts High School	0.38	-0.07106	0.46	0.28
Crothers Elementary School	0.68	-0.72938	0.19	0.28
McBain Middle School	0.48	-0.26928	0.36	0.28
GrandPort Elementary Academy	0.69	-0.7552	0.18	0.28
Challenger Elementary	0.69	-0.75094	0.18	0.28
Union City Elementary School	0.64	-0.6258	0.22	0.28
Oakridge Lower Elementary School	0.69	-0.739033333	0.18	0.28
Ewen-Trout Creek Consolidated School	0.69	-0.746625	0.18	0.28
O.J. DeJonge Middle School	0.5	-0.312	0.34	0.28
Elmwood Elementary School	0.45	-0.21308	0.38	0.28
Loy Norrix High School	0.63	-0.614336	0.22	0.28
Sam Adams Elementary School	0.62	-0.59425	0.23	0.28

Top to Bottom Ranking 197

Shoreline Elementary School	0.44	-0.1787	0.39	0.28
Waverly Middle School	0.49	-0.298275	0.34	0.28
West	0.59	-0.5211	0.25	0.28
Southfield High School	0.61	-0.557036	0.24	0.28
Fair Plain Reissance Middle School	0.92	-1.30735	0.06	0.27
Pontiac Academy for Excellence - Middle School	0.85	-1.13674	0.08	0.27
DeWitt Junior High School	0.09	0.5517	0.74	0.27
Ferry Elementary School	0.09	0.54438	0.74	0.27
Key Elementary School	0.82	-1.06792	0.1	0.27
Pepper Elementary School	0.79	-0.99378	0.12	0.27
Portage Northern High School	0.23	0.24473	0.61	0.27
Hulsing Elementary School	0.19	0.3218	0.64	0.27
Eastern Elementary School	0.22	0.263075	0.61	0.27
Pewamo Elementary School	0.25	0.186966667	0.58	0.27
Ida Middle School	0.24	0.22264	0.59	0.27
Fowlerville High School	0.3	0.091662	0.53	0.27
Jefferson	0.75	-0.90272	0.14	0.27
Central Middle School	0.29	0.11562	0.54	0.27
Huron High School	0.26	0.17297	0.57	0.27
Bath Middle School	0.33	0.03028	0.5	0.27
Tecumseh Acres Elementary School	0.32	0.04655	0.51	0.27
Plainwell Middle School	0.34	0.00694	0.49	0.27
Wilcox Elementary School	0.35	-0.004775	0.48	0.27
Childs Elementary	0.38	-0.0732	0.45	0.27
Chippewa Hills Intermediate School	0.66	-0.7053	0.2	0.27
James R Geisler Middle School	0.38	-0.07892	0.45	0.27
Newhall Middle School	0.71	-0.80605	0.16	0.27
Adlai Stevenson Elementary School	0.68	-0.7516	0.18	0.27
Lake City Lower Elem. School	0.72	-0.8444	0.15	0.27
Carleton Middle School	0.42	-0.15508	0.41	0.27
Bentley Senior High School	0.68	-0.7469	0.18	0.27
Charlevoix Elementary School	0.47	-0.2648	0.36	0.27
Long Lake Elementary School	0.47	-0.26528	0.36	0.27
Norrie Elementary School	0.62	-0.59978	0.23	0.27
Ann Arbor Trail Magnet School	0.69	-0.76428	0.17	0.27
Hope Middle School	0.5	-0.334875	0.33	0.27
Stoney Creek Elementary	0.52	-0.3864	0.31	0.27
Three Rivers High School	0.49	-0.31428	0.34	0.27
Hastings Middle School	0.44	-0.20124	0.38	0.27
Morris Adler Elementary School	0.57	-0.48218	0.27	0.27
Scarlett Middle School	0.53	-0.39798	0.3	0.27
John Glenn High School	0.52	-0.370535	0.31	0.27
North Branch High School	0.44	-0.20175	0.38	0.27

Top to Bottom Ranking 198

Mill Creek Middle School	0.48	-0.28938	0.34	0.27
Frontier Intertiol Academy	1	-1.55194375	0.04	0.26
Westwood Middle School	0.97	-1.45028	0.04	0.26
Kosciuszko School	0.91	-1.299725	0.06	0.26
Mason Elementary School	0.87	-1.20744	0.08	0.26
Barber Focus Sch of Math Sci Tec	0.88	-1.23818	0.07	0.26
Lincoln Middle School	0.87	-1.21648	0.07	0.26
Athens High School	0.15	0.393598	0.68	0.26
Armada High School	0.16	0.369438	0.67	0.26
El Sol Elementary	0.79	-1.0182	0.11	0.26
East Middle School	0.13	0.4371	0.69	0.26
Orchard Hills Elementary School	0.17	0.341275	0.65	0.26
Reo School	0.77	-0.970533333	0.12	0.26
Oxford High School	0.22	0.235532	0.6	0.26
Roosevelt Elementary School	0.26	0.153725	0.56	0.26
Mecosta-Osceola Education Center	0.71	-0.8285	0.16	0.26
Whitmore Lake High School	0.3	0.079978	0.52	0.26
Harper Creek High School	0.32	0.02474	0.5	0.26
Joseph G. Steenland Elementary School	0.75	-0.9234	0.13	0.26
Fulton Elementary School	0.32	0.02468	0.5	0.26
Brace-Lederle K-8 School	0.72	-0.86294	0.15	0.26
Washington Woods Middle School	0.35	-0.022275	0.47	0.26
Genesee High School	0.66	-0.72379	0.19	0.26
Jefferson Middle School	0.42	-0.16915	0.4	0.26
Garden City High School	0.38	-0.092152	0.44	0.26
South Elementary School	0.41	-0.15798	0.41	0.26
St. Igce Elementary School	0.61	-0.604025	0.23	0.26
Morley Stanwood Middle School	0.62	-0.62192	0.22	0.26
Schwarzkoﬀ Elementary School	0.45	-0.23284	0.37	0.26
Vestaburg Community High School	0.51	-0.376434	0.31	0.26
Owosso High School	0.47	-0.279216	0.35	0.26
Homer Community High School	0.52	-0.399164	0.3	0.26
Taylor Exemplar Academy	0.59	-0.55592	0.24	0.26
Houghton Elementary School	0.51	-0.36808	0.31	0.26
Port Huron High School	0.54	-0.442482	0.28	0.26
Luther L. Wright High School	0.52	-0.389432	0.3	0.26
North Adams-Jerome Elem. School	0.6	-0.581275	0.23	0.26
Muskegon Heights Middle School	0.95	-1.429925	0.04	0.25
Stewart Elementary-Middle School	0.93	-1.38036	0.05	0.25
Fisher Magnet Upper Academy	0.91	-1.32718	0.06	0.25
Moore Elementary School	0.85	-1.20104	0.08	0.25
MacDowell Elementary School	0.85	-1.20128	0.08	0.25
Bennett School	0.86	-1.21728	0.07	0.25

Top to Bottom Ranking 199

Bunche School	0.86	-1.21808	0.07	0.25
Oak Park Preparatory Academy	0.81	-1.0844	0.1	0.25
East Rockford Middle School	0.13	0.42124	0.69	0.25
Trenton High School	0.17	0.332564	0.65	0.25
Gull Lake Middle School	0.21	0.24642	0.61	0.25
Wylie E. Groves High School	0.12	0.428204	0.69	0.25
John F. Kennedy Elementary School	0.79	-1.0469	0.1	0.25
Thomas Read Elementary School	0.76	-0.977033333	0.12	0.25
Anchor Bay Middle School North	0.23	0.20276	0.58	0.25
Barkell Elementary School	0.21	0.24372	0.6	0.25
Summerfield Junior/Senior High School	0.23	0.19624	0.58	0.25
Bruce Collins Elementary School	0.26	0.12782	0.55	0.25
Donelson Hills Elementary School	0.74	-0.9246	0.13	0.25
Earl F. Carr School	0.73	-0.89712	0.14	0.25
Sashabaw Middle School	0.25	0.15975	0.56	0.25
Anderson Middle School	0.29	0.06438	0.52	0.25
Norup Intertiol School	0.35	-0.05104	0.46	0.25
Western Middle School	0.32	0.00392	0.49	0.25
Woodview Elementary School	0.66	-0.7284	0.19	0.25
Cavaugh School	0.7	-0.8192	0.16	0.25
Blackbird Elementary School	0.34	-0.03445	0.47	0.25
Portland Middle School	0.36	-0.07658	0.45	0.25
Clio Area High School	0.42	-0.19934	0.39	0.25
Wilkerson Elementary School	0.39	-0.13928	0.42	0.25
Sparta Middle School	0.44	-0.24546	0.37	0.25
Grogan Elementary School	0.55	-0.47026	0.27	0.25
Fraser High School	0.43	-0.222072	0.38	0.25
Reed City High School	0.52	-0.406354	0.3	0.25
Union City Middle School	0.57	-0.52256	0.25	0.25
Plymouth Educatioll Center	0.56	-0.4959	0.26	0.25
Monroe Middle School	0.55	-0.470225	0.27	0.25
Lincoln Middle School	0.52	-0.41908	0.29	0.25
East Jackson Middle School	0.57	-0.5313	0.25	0.25
Morton Elementary School	0.95	-1.4694	0.04	0.24
Priest Elementary-Middle School	0.91	-1.36452	0.05	0.24
Milwood Elementary School	0.85	-1.21146	0.08	0.24
Bagley Elementary School	0.81	-1.10654	0.09	0.24
Randolph Elementary School	0.19	0.266475	0.62	0.24
Holton Middle School	0.76	-0.98432	0.12	0.24
Beacon Elementary School	0.76	-0.989333333	0.12	0.24
Concord Montessori and Community School	0.76	-0.99315	0.12	0.24
Grosse Ile Middle School	0.11	0.44398	0.69	0.24
Arec Eastern Middle/High School	0.74	-0.9319	0.13	0.24

Top to Bottom Ranking 200

Hillside Elementary School	0.21	0.211125	0.59	0.24
TCAPS Montessori School	0.24	0.15024	0.56	0.24
Creative Learning Academy	0.72	-0.8939	0.14	0.24
Haas Elementary School	0.72	-0.89612	0.14	0.24
West Bloomfield High School	0.22	0.202224	0.58	0.24
Mt. Hope School	0.71	-0.86532	0.15	0.24
Churchill High School	0.25	0.146236	0.55	0.24
Oaktree Elementary School	0.25	0.1353	0.55	0.24
Bingham Arts Academy	0.73	-0.918133333	0.13	0.24
Utica High School	0.31	0.009962	0.49	0.24
Powell Middle School	0.3	0.03596	0.5	0.24
Rogers School	0.71	-0.8709	0.14	0.24
Mt. Pleasant Senior High School	0.33	-0.0235	0.47	0.24
Bothwell Middle School	0.3	0.03812	0.5	0.24
Newaygo Middle School	0.64	-0.7007	0.2	0.24
Romulus Senior High School	0.65	-0.72897	0.19	0.24
Perry Middle School	0.4	-0.1711	0.4	0.24
Onkama Middle/High School	0.4	-0.1633	0.4	0.24
Kenowa Hills Central Elementary School	0.43	-0.227625	0.37	0.24
Triumph Academy	0.47	-0.32816	0.33	0.24
Delton Kellogg Elem. School	0.55	-0.495975	0.26	0.24
North Dickinson School	0.46	-0.291156	0.34	0.24
Besser Elementary School	0.51	-0.41382	0.29	0.24
Timbuktu Academy of Science and Technology	0.96	-1.5023	0.04	0.23
Wayne Elementary School	0.96	-1.5102	0.04	0.23
Fair Plain West Elementary School	0.94	-1.4487	0.04	0.23
Edgewood Elementary School	0.94	-1.45426	0.04	0.23
Merrill Park Elementary School	0.91	-1.378925	0.05	0.23
Ken-O-Sha Park School	0.86	-1.25155	0.07	0.23
P.D. Chatterton Middle School	0.8	-1.09824	0.09	0.23
Wolverine Elementary School	0.76	-1.009933333	0.11	0.23
Delta Center Elementary School	0.22	0.17606	0.57	0.23
Cass Elementary School	0.19	0.23	0.6	0.23
Willow Run Intermediate Learning Center	0.69	-0.82915	0.16	0.23
North Farmington High School	0.19	0.23777	0.6	0.23
Orville C. Krause Later Elementary School	0.23	0.15256	0.56	0.23
New Groningen School	0.23	0.15846	0.56	0.23
Mason High School	0.26	0.090578	0.53	0.23
Morse Elementary School	0.26	0.09414	0.53	0.23
Coloma Elementary School	0.68	-0.8172	0.16	0.23
Mason Middle School	0.32	-0.02006	0.48	0.23
Allendale Elementary School	0.69	-0.84142	0.15	0.23
Chippewa Valley High School	0.3	0.00078	0.49	0.23



Top to Bottom Ranking 201

Prairie Ridge Elementary School	0.65	-0.74698	0.18	0.23
Mayville Elementary School	0.64	-0.71968	0.19	0.23
Maple Grove Elementary School	0.63	-0.706133333	0.2	0.23
Reach Charter Academy	0.64	-0.71754	0.19	0.23
Jefferson Elementary School	0.55	-0.509575	0.26	0.23
Golightly Education Center	0.61	-0.64506	0.21	0.23
Waterford Village Elementary School	0.58	-0.59088	0.23	0.23
Frank Jeannette Jr. High School	0.54	-0.49945	0.26	0.23
Hughes Elementary School	0.43	-0.263575	0.36	0.23
Michigan School for the Deaf ***	0.43	-0.2536	0.36	0.23
Carson City-Crystal High School	0.44	-0.282438	0.35	0.23
Wayne Gray Early Learning Center	0.47	-0.34905	0.32	0.23
Dickinson School	0.91	-1.39316	0.05	0.22
Hutchinson Elementary-Middle School	0.87	-1.28804	0.06	0.22
Pleasantview Elementary School	0.85	-1.24655	0.07	0.22
Rainbow Elementary School	0.82	-1.16746	0.08	0.22
Pansophia Academy	0.78	-1.079433333	0.1	0.22
Goodrich Middle School	0.19	0.20568	0.59	0.22
Williamston High School	0.17	0.259074	0.61	0.22
North Rockford Middle School	0.18	0.22986	0.6	0.22
Ellis Elementary School	0.69	-0.85175	0.15	0.22
Brandon High School	0.34	-0.080042	0.45	0.22
Adlai Stevenson High School	0.34	-0.08144	0.45	0.22
Beaverton Middle School	0.64	-0.73316	0.19	0.22
Eppler Junior High School	0.33	-0.079925	0.45	0.22
Pattengill School	0.34	-0.08768	0.44	0.22
Brandon Middle School	0.34	-0.09355	0.44	0.22
Shepherd High School	0.37	-0.141822	0.41	0.22
Parkwood-Upjohn Elementary School	0.54	-0.5035	0.26	0.22
Meridian Elementary School	0.48	-0.380525	0.31	0.22
Whitmore Lake Elementary School	0.4	-0.207625	0.38	0.22
Lakeville Middle School	0.55	-0.5305	0.25	0.22
Pinewood Elementary School	0.55	-0.5416	0.25	0.22
Woodrow Wilson School	0.51	-0.44138	0.28	0.22
L'Anse High School	0.48	-0.379038	0.31	0.22
Pierce Middle School	0.45	-0.32498	0.33	0.22
Pinconning High School	0.42	-0.262368	0.36	0.22
New Haven Elementary School	0.53	-0.49184	0.26	0.22
Detroit Intertiol Academy for Young Women	0.88	-1.344365714	0.06	0.21
Taft-Galloway Elementary School	0.86	-1.284875	0.07	0.21
Schulze Elementary-Middle School	0.84	-1.24414	0.07	0.21
Whitman Elementary School	0.84	-1.22812	0.07	0.21
Max Paun School	0.82	-1.19666	0.08	0.21

Top to Bottom Ranking 202

Bowen Elementary	0.81	-1.15254	0.08	0.21
Eastern Washtew Multicultural Academy	0.73	-0.9716	0.12	0.21
Novi Middle School	0.1	0.355325	0.66	0.21
Clarkston High School	0.19	0.192098	0.58	0.21
Beach Middle School	0.13	0.304375	0.63	0.21
Concord Academy:Boyne	0.19	0.19	0.58	0.21
Decatur High School	0.62	-0.708572	0.2	0.21
Kimball Elementary School	0.68	-0.84496	0.15	0.21
Leroy Elementary School	0.64	-0.75	0.18	0.21
Arbor Academy	0.63	-0.730666667	0.19	0.21
Manchester Middle School	0.19	0.18082	0.57	0.21
Melvindale High School	0.59	-0.63746	0.22	0.21
Lincoln Brick Elementary School	0.64	-0.75948	0.18	0.21
Fenton Senior High School	0.29	-0.00638	0.48	0.21
Freeland Middle School/High School	0.2	0.1522	0.56	0.21
Kellogg Elementary School	0.26	0.0575	0.51	0.21
Hillman Community Jr/Sr High School	0.6	-0.6609475	0.21	0.21
James T. Jones Elementary School	0.4	-0.22568	0.38	0.21
Soo Hill Elementary School	0.29	-0.003625	0.48	0.21
Gwinn Middle School	0.61	-0.697125	0.2	0.21
Garfield Elementary School	0.58	-0.62185	0.22	0.21
L'Anse Creuse High School	0.33	-0.093856	0.44	0.21
Cousino Senior High School	0.36	-0.145604	0.41	0.21
Paramount Charter Academy	0.46	-0.3508	0.32	0.21
Pellston Middle/High School	0.53	-0.504072	0.26	0.21
Haggerty Elementary School	0.54	-0.52256	0.25	0.21
Climax-Scotts Elementary School	0.46	-0.353225	0.32	0.21
Potterville Elementary School	0.51	-0.46975	0.27	0.21
Wilkins Elementary-Middle School	0.92	-1.461375	0.04	0.2
Woodward School for Technology and Research	0.9	-1.4116	0.05	0.2
Gaudior Academy	0.89	-1.38242	0.05	0.2
Conner Creek Academy East - Elementary	0.89	-1.38634	0.05	0.2
Milwood Magnet School	0.78	-1.11464	0.09	0.2
Wainwright School	0.78	-1.116875	0.09	0.2
Memorial School	0.76	-1.064233333	0.1	0.2
Hazel Park Junior High School	0.76	-1.05526	0.1	0.2
Lincoln-King Academy	0.75	-1.0322	0.11	0.2
Waldron Elementary School	0.75	-1.02875	0.11	0.2
Madison High School	0.74	-1.002924	0.11	0.2
Posen Elementary School	0.61	-0.7072	0.2	0.2
Oscoda Area High School	0.63	-0.752792	0.18	0.2
Hilbert Middle School	0.63	-0.74934	0.18	0.2
Mayville Middle School	0.62	-0.73648	0.19	0.2

Top to Bottom Ranking 203

Lakeland Elementary School	0.26	0.0371	0.5	0.2
Troy Union Elementary School	0.21	0.1256	0.54	0.2
Milan High School	0.29	-0.0321	0.47	0.2
Wildwood Elementary School	0.51	-0.482675	0.27	0.2
Allegan High School	0.23	0.07728	0.52	0.2
Dean A. Idrett School	0.3	-0.050633333	0.46	0.2
Plymouth Educatiol Center Preparatory High School	0.43	-0.30792	0.34	0.2
Andersonville Elementary School	0.33	-0.1155	0.43	0.2
Fruitport High School	0.36	-0.161724	0.4	0.2
Wakefield-Marenisco School	0.57	-0.63016	0.22	0.2
Seitz Middle School	0.39	-0.24332	0.37	0.2
Durand Middle School	0.54	-0.56614	0.24	0.2
Kenwood Elementary School	0.37	-0.18408	0.39	0.2
Leslie Middle School	0.45	-0.34908	0.32	0.2
Michigan School for the Deaf ***	0.4	-0.2536	0.36	0.2
Waterford Kettering High School	0.37	-0.198606	0.39	0.2
Parll Elementary School	0.5	-0.4731	0.27	0.2
Harper Creek Middle School	0.36	-0.1786	0.39	0.2
Campau Park School	0.98	-1.639625	0.03	0.19
Greenfield Union Elementary-Middle School	0.93	-1.5142	0.04	0.19
Green Meadow Elementary School	0.85	-1.306833333	0.06	0.19
Eisenhower School	0.81	-1.210575	0.08	0.19
Pasteur Elementary School	0.78	-1.12208	0.09	0.19
Romulus Middle School	0.77	-1.103125	0.09	0.19
Linden Grove Middle School	0.72	-0.97946	0.12	0.19
Ypsilanti Middle School	0.7	-0.938125	0.13	0.19
Maple Street Magnet School for the Arts	0.68	-0.88216	0.14	0.19
Center Line High School	0.6	-0.708418	0.2	0.19
Larsen Elementary School	0.63	-0.785925	0.17	0.19
Pittsford Area Elem. School	0.58	-0.65778	0.21	0.19
North Adams-Jerome Middle/High School	0.49	-0.463435	0.28	0.19
Williams Elementary School	0.55	-0.60106	0.23	0.19
Gladstone Area High School	0.32	-0.11149	0.43	0.19
Allen Elementary School	0.49	-0.46158	0.28	0.19
Parkview Elementary School	0.47	-0.414	0.29	0.19
East Kentwood High School	0.54	-0.585212	0.23	0.19
Smith Middle School	0.46	-0.41164	0.3	0.19
Allen Park Middle School	0.36	-0.1886	0.39	0.19
Wexford Montessori Magnet School	0.54	-0.576825	0.23	0.19
Tri County Middle School	0.52	-0.53842	0.25	0.19
Brownstown Middle School	0.38	-0.244575	0.37	0.19
Redford Union High School	0.5	-0.492202	0.26	0.19
Pittsfield School	0.48	-0.43972	0.28	0.19

Top to Bottom Ranking 204

White Pine Middle School	0.4	-0.28062	0.35	0.19
Lincoln High School	0.8	-1.196844	0.08	0.18
Northwestern High School	0.8	-1.19642	0.08	0.18
Marvin L. Wins Academy of Performing Arts Elem.	0.74	-1.0427	0.1	0.18
Arborwood Elementary School	0.72	-1.00038	0.11	0.18
Coolidge Intermediate School	0.71	-0.9871	0.12	0.18
Henry Ford Academy: School for Creative Studies (PSAD)	0.69	-0.93265	0.13	0.18
Davis Elementary School	0.67	-0.88015	0.14	0.18
Moccasin Elementary School	0.57	-0.671	0.21	0.18
May V. Peck Elementary School	0.59	-0.7111	0.19	0.18
Endeavor Charter Academy	0.58	-0.68808	0.2	0.18
South Lake Middle School	0.55	-0.60998	0.22	0.18
Caro Middle School	0.56	-0.6548	0.21	0.18
Ewart Middle School	0.5	-0.50902	0.26	0.18
Orchard Lake Middle School	0.24	0.01462	0.49	0.18
Maple Elementary School	0.31	-0.11064	0.43	0.18
Washington Street Elementary School	0.51	-0.53182	0.25	0.18
Alaiedon Elementary School	0.3	-0.11298	0.43	0.18
Airport Senior High School	0.33	-0.15164	0.41	0.18
Endeavour Middle School	0.45	-0.40808	0.3	0.18
John D. Pierce Middle School	0.53	-0.5878	0.23	0.18
East Jackson High School	0.52	-0.548216	0.24	0.18
Fowlerville Junior High School	0.38	-0.26574	0.36	0.18
Memphis High School	0.38	-0.252386	0.36	0.18
Holt Junior High School	0.4	-0.3025	0.34	0.18
Carter Middle School	0.38	-0.25332	0.36	0.18
George Long Elementary School	0.3	-0.11758	0.43	0.18
South Haven High School	0.48	-0.482308	0.27	0.18
Parchment High School	0.44	-0.388734	0.3	0.18
Conner Creek Academy East-MI Collegiate Middle	0.87	-1.3853	0.05	0.17
Pontiac Academy for Excellence - Elementary	0.86	-1.37302	0.05	0.17
Dailey Elementary School	0.83	-1.28704	0.06	0.17
East Elementary School	0.76	-1.130275	0.09	0.17
Fordson High School	0.75	-1.102842	0.09	0.17
Valley View Elementary School	0.75	-1.10084	0.09	0.17
Mio-AuSable Elementary School	0.71	-1.00138	0.11	0.17
Central Montcalm Middle School	0.63	-0.82872	0.16	0.17
Bangor Lincoln School	0.6	-0.7455	0.18	0.17
Lincoln Redner Elementary School	0.6	-0.75138	0.18	0.17
Briarwood Elementary School	0.57	-0.69242	0.2	0.17
Botsford Elementary School	0.53	-0.5898	0.23	0.17
Bessie B. Baker School	0.57	-0.697	0.2	0.17
Barth Elementary School	0.59	-0.74516	0.18	0.17

Top to Bottom Ranking 205

Central Montcalm High School	0.5	-0.522826	0.25	0.17
Reed City Middle School	0.55	-0.64378	0.21	0.17
Stephenson High School	0.43	-0.38185	0.31	0.17
Rogers City Elementary School	0.32	-0.15902	0.41	0.17
Dold L. Pavlik Middle School	0.51	-0.55876	0.24	0.17
McBain High School	0.37	-0.25644	0.36	0.17
Avondale High School	0.25	-0.037404	0.47	0.17
Buchan Elementary School	0.23	-0.01055	0.48	0.17
Sonoma Elementary	0.37	-0.257175	0.36	0.17
Lincoln Multi-Age	0.27	-0.09875	0.44	0.17
Flushing High School	0.3	-0.121064	0.42	0.17
Shumate Middle School	0.32	-0.17448	0.4	0.17
Daniel Axford Elementary School	0.18	0.06715	0.52	0.17
Warner Upper Elementary School	0.23	-0.008725	0.48	0.17
Field Elementary School	0.3	-0.14282	0.41	0.17
Negaunee Middle School	0.29	-0.1372	0.42	0.17
AGBU Alex-Marie Manoogian School	0.36	-0.253365	0.36	0.17
Baker Middle School	0.2	0.02606	0.5	0.17
Farley Hill Elementary School	0.27	-0.0888	0.44	0.17
Grand Ledge High School	0.22	-0.005442	0.48	0.17
Will Carleton Charter School Academy	0.17	0.06826	0.52	0.17
Neis Elementary School	0.95	-1.62488	0.03	0.16
Edison Elementary School	0.83	-1.32048	0.06	0.16
Owen Elementary School	0.81	-1.2845	0.07	0.16
Elwell Elementary School	0.76	-1.15404	0.08	0.16
Lansing Charter Academy	0.72	-1.0624	0.1	0.16
Dr. Joseph F. Pollack Academic Center of Excellence	0.69	-0.97552	0.12	0.16
Erickson School	0.67	-0.94932	0.13	0.16
Carrie Kuse Early Childhood Learning Center	0.65	-0.89205	0.14	0.16
Au Gres-Sims Middle and High School	0.66	-0.91474	0.13	0.16
Schall Elementary School	0.63	-0.83484	0.15	0.16
Deckerville Community High School	0.56	-0.7016	0.2	0.16
Carrollton High School	0.58	-0.734674	0.19	0.16
Hamady Community High School	0.59	-0.7501	0.18	0.16
Potterville Middle School	0.49	-0.54212	0.25	0.16
Lawrence Jr/Sr High School	0.46	-0.48681	0.27	0.16
McIntyre Elementary School	0.51	-0.59764	0.23	0.16
Alfred E. Upton Elementary School	0.46	-0.48872	0.27	0.16
Gill Elementary School	0.33	-0.21095	0.38	0.16
Evergreen Elementary	0.37	-0.312233333	0.34	0.16
MacDold Middle School	0.29	-0.1502	0.41	0.16
Carl T. Renton Jr. High School	0.29	-0.1637	0.4	0.16
Goodrich High School	0.19	-0.020622	0.48	0.16

Top to Bottom Ranking 206

Schavey Road Elementary School	0.14	-0.0015	0.49	0.16
Brookside School	0.98	-1.704466667	0.02	0.15
Summerfield School	0.92	-1.5565	0.03	0.15
Noble Elementary-Middle School	0.9	-1.5187	0.04	0.15
Cummings School	0.87	-1.43082	0.04	0.15
Lincoln Elementary School	0.86	-1.421475	0.05	0.15
McKinley Elementary School	0.85	-1.39432	0.05	0.15
Durfee Elementary-Middle School	0.85	-1.40272	0.05	0.15
Olive M. Adams Elementary School	0.81	-1.29218	0.06	0.15
Hoover Elementary School	0.79	-1.2554	0.07	0.15
Kelly Middle School	0.76	-1.177875	0.08	0.15
Pontiac Middle School	0.71	-1.058975	0.1	0.15
Birch Street Elementary School	0.71	-1.0508	0.1	0.15
Clintondale High School	0.7	-1.045422	0.1	0.15
Oak Manor Sixth Grade Center	0.64	-0.8826	0.14	0.15
East Intermediate School	0.62	-0.84285	0.15	0.15
Big Bay De Noc School	0.57	-0.7462725	0.18	0.15
Manor Elementary School	0.47	-0.53932	0.25	0.15
Jonesville Middle School	0.5	-0.59578	0.23	0.15
Woodland Park Academy	0.4	-0.38572	0.31	0.15
Perry East Elementary	0.43	-0.4539	0.28	0.15
Menominee Jr High School	0.44	-0.471975	0.27	0.15
Gerisch Middle School	0.48	-0.5489	0.24	0.15
F.C. Reed Middle School	0.42	-0.42184	0.29	0.15
Sutton Elementary School	0.34	-0.262425	0.36	0.15
Michigan School for the Deaf ***	0.33	-0.2536	0.36	0.15
Harrison High School	0.36	-0.302738	0.34	0.15
Aspen Ridge Elementary School	0.38	-0.3572	0.32	0.15
Ann Arbor Learning Community	0.14	-0.037275	0.47	0.15
C.C. Coulter Elementary School	0.93	-1.62705	0.03	0.14
McKinley Foundation	0.87	-1.472175	0.04	0.14
Brownell School	0.86	-1.454625	0.04	0.14
MacGregor Elementary School	0.8	-1.31714	0.06	0.14
Polk Elementary School	0.79	-1.28608	0.07	0.14
Reynolds Elementary School	0.64	-0.92448	0.13	0.14
Kalamazoo Central High School	0.58	-0.78842	0.17	0.14
Lakeland Elementary School	0.56	-0.74704	0.18	0.14
Grand Rapids Child Discovery Center	0.57	-0.7834	0.17	0.14
Knudsen Elementary School	0.52	-0.6551	0.21	0.14
Manistique Middle and High School	0.51	-0.64316	0.21	0.14
Tyler Road Elementary School	0.43	-0.465525	0.28	0.14
Western Middle School	0.43	-0.46388	0.28	0.14
Thomas Jefferson Elem. School	0.41	-0.4244	0.29	0.14

Top to Bottom Ranking 207

White Pine Academy	0.38	-0.36995	0.31	0.14
Ewart High School	0.33	-0.280608	0.35	0.14
Bath Elementary School	0.36	-0.34376	0.32	0.14
Berkley High School	0.26	-0.156182	0.41	0.14
Flushing Middle School	0.38	-0.394925	0.3	0.14
Oscar A. Carlson High School	0.29	-0.230466	0.37	0.14
New Lothrop High School	0.21	-0.1202	0.43	0.14
Abbott Middle School	0.23	-0.1731	0.4	0.14
Pathfinder School	0.2	-0.13695	0.42	0.14
DeWitt High School	0.09	-0.086704	0.45	0.14
Holbrook School	0.96	-1.736725	0.02	0.13
Rutherford Elementary School	0.91	-1.59538	0.03	0.13
Holmes, O.W. Elementary-Middle School	0.83	-1.404	0.05	0.13
Northwestern Middle School	0.82	-1.38148	0.05	0.13
Roosevelt Elementary School	0.75	-1.20754	0.08	0.13
Handy Middle School	0.69	-1.07602	0.1	0.13
Forest View School	0.69	-1.069225	0.1	0.13
Hamady Middle School	0.68	-1.03735	0.1	0.13
South Elementary School	0.66	-1.01255	0.11	0.13
North School	0.64	-0.97108	0.12	0.13
Owosso Middle School	0.62	-0.913575	0.13	0.13
Newberry Elementary School	0.61	-0.87934	0.14	0.13
Holly Elementary School	0.53	-0.73286	0.19	0.13
Parchment Middle School	0.52	-0.68434	0.2	0.13
Paw Paw Later Elementary	0.48	-0.6074	0.23	0.13
Mid Peninsula School	0.5	-0.6734	0.21	0.13
Whitehall Ealy Elem. School	0.46	-0.57552	0.24	0.13
Hanover-Horton Elementary School	0.4	-0.46218	0.28	0.13
Menominee High School	0.36	-0.381896	0.31	0.13
Paddock Elementary School	0.32	-0.3092	0.34	0.13
Charlotte Senior High School	0.36	-0.396204	0.3	0.13
K.C. Ling Elementary School	0.31	-0.30558	0.34	0.13
Whiteford High School	0.22	-0.185318	0.39	0.13
Fulton High School	0.14	-0.195316	0.39	0.13
Phoenix Elementary-Middle School	0.99	-1.86166	0.01	0.12
Mulick Elementary	0.97	-1.82448	0.02	0.12
Dossin Elementary-Middle School	0.91	-1.67188	0.03	0.12
Tucker Elementary School	0.91	-1.65858	0.03	0.12
Brewer Elementary-Middle School	0.89	-1.58872	0.03	0.12
Sampson Academy	0.89	-1.61522	0.03	0.12
Holmes Foundation	0.88	-1.556075	0.03	0.12
Roosevelt/McGrath Elem. School	0.77	-1.3025	0.06	0.12
Willow Run Elementary Learning Center	0.74	-1.2368	0.07	0.12

Top to Bottom Ranking 208

Bridgeport High School	0.73	-1.218394	0.07	0.12
Daly School	0.72	-1.19295	0.08	0.12
Turner-Howson Elementary School	0.71	-1.1577	0.08	0.12
Forest Area High School	0.65	-1.020224	0.11	0.12
Emerald Elementary School	0.65	-1.01226	0.11	0.12
G.T. Norman Elementary School	0.63	-0.9649	0.12	0.12
Keith Bovenschen School	0.57	-0.82415	0.16	0.12
Mary McGuire School	0.49	-0.677075	0.21	0.12
Savage Road Elementary School	0.49	-0.68785	0.2	0.12
Clawson High School	0.41	-0.508012	0.26	0.12
Ithaca High School	0.36	-0.42622	0.29	0.12
Lakeview High School	0.35	-0.402552	0.3	0.12
Whitehall Middle School	0.41	-0.52226	0.25	0.12
L.E. White Middle School	0.29	-0.32792	0.33	0.12
Portland High School	0.29	-0.343392	0.32	0.12
Laingsburg Middle School	0.26	-0.3123	0.34	0.12
Willow Ridge Elementary School	0.23	-0.3346	0.33	0.12
Nichols Elementary-Middle School	0.94	-1.7758	0.02	0.11
Alger Middle School	0.93	-1.74246	0.02	0.11
Academy for Business and Technology High School	0.92	-1.716088571	0.02	0.11
Raupp School	0.9	-1.664575	0.03	0.11
Blackwell Institute	0.85	-1.54326	0.04	0.11
Carver Elementary-Middle School	0.86	-1.5657	0.03	0.11
David Hicks School	0.84	-1.5399	0.04	0.11
Vero Elementary School	0.83	-1.494	0.04	0.11
Muskegon Heights High School	0.77	-1.356002	0.06	0.11
John R. Kment Elementary School	0.76	-1.3203	0.06	0.11
Detroit Academy of Arts and Sciences Middle School	0.75	-1.2868	0.06	0.11
H.D. Crull Elementary School	0.72	-1.21218	0.08	0.11
Vandenberg Elementary School	0.72	-1.2268	0.07	0.11
Lincoln School	0.67	-1.1083	0.09	0.11
Ontogon Area Elementary School	0.65	-1.035033333	0.1	0.11
North Middle School	0.53	-0.76554	0.17	0.11
Central Middle School	0.58	-0.9048	0.13	0.11
Quincy Middle School	0.52	-0.76364	0.17	0.11
Detroit School of Arts	0.55	-0.833798	0.15	0.11
Michigamme Elementary School	0.5	-0.714	0.19	0.11
Pullen Elementary School	0.51	-0.756666667	0.18	0.11
Koepsell Education Center	0.5	-0.744925	0.18	0.11
Ontogon Area Jr/Sr High School	0.49	-0.71908	0.19	0.11
Raven Middle School	0.49	-0.71466	0.19	0.11
Elliott Elementary School	0.46	-0.663175	0.21	0.11
LaSalle High School	0.46	-0.641998	0.21	0.11



Top to Bottom Ranking 209

Wagar Junior High School	0.45	-0.64408	0.21	0.11
Dawson Elementary School	0.41	-0.57596	0.24	0.11
Thomas Simpson Middle School	0.38	-0.49836	0.26	0.11
Oakland Elementary School	0.32	-0.38918	0.3	0.11
Norway High School	0.31	-0.39128	0.3	0.11
American Montessori Academy Upper Elementary	0.32	-0.4137	0.29	0.11
Bullock Creek Elementary School	0.29	-0.3684	0.31	0.11
Fort Gratiot Middle School	0.31	-0.42922	0.29	0.11
Lakeview Middle School	0.31	-0.42506	0.29	0.11
Blissfield High School	0.28	-0.396672	0.3	0.11
Hanover-Horton Middle School	0.3	-0.4673	0.28	0.11
Laingsburg Elementary School	0.22	-0.37654	0.31	0.11
Lakeview High School	0.23	-0.409962	0.3	0.11
Marshall Academy	0.24	-0.42896	0.29	0.11
Armada Middle School	0.2	-0.35232	0.32	0.11
Michigan School for the Deaf ***	0	-0.2536	0.36	0.11
Michigan School for the Deaf ***	0	-0.2536	0.36	0.11
Michigan School for the Deaf ***	0	-0.2536	0.36	0.11
Michigan School for the Deaf ***	0	-0.2536	0.36	0.11
Michigan School for the Deaf ***	0	-0.2536	0.36	0.11
Mary McLeod Bethune Elementary-Middle School	0.86	-1.5866	0.03	0.1
Sagiw High School	0.86	-1.62856	0.03	0.1
Burns Elementary-Middle School	0.84	-1.55368	0.04	0.1
Henderson Academy	0.84	-1.55514	0.03	0.1
Benjamin Franklin Middle School	0.76	-1.343025	0.06	0.1
Shawmut Hills School	0.77	-1.3697	0.05	0.1
Northeast Middle School	0.68	-1.14934	0.08	0.1
Garfield Elementary School	0.62	-1.00998	0.11	0.1
Parchment North Elem. School	0.57	-0.8959	0.14	0.1
Bellevue Jr/Sr High School	0.51	-0.77113	0.17	0.1
Waterford Mott High School	0.51	-0.775714	0.17	0.1
Millington High School	0.48	-0.734822	0.19	0.1
Monroe High School	0.45	-0.665998	0.21	0.1
Lake Linden-Hubbell High School	0.48	-0.74435	0.18	0.1
Wood Creek Elementary School	0.37	-0.509025	0.26	0.1
North Ward Elementary School	0.36	-0.475666667	0.27	0.1
Woodland Elementary School	0.34	-0.48028	0.27	0.1
Dansville Elementary School	0.35	-0.55416	0.24	0.1
Auburn Elementary School	0.34	-0.557075	0.24	0.1
Pinckney Community High School	0.22	-0.427426	0.29	0.1
Fisher Magnet Lower Academy	0.96	-1.914525	0.01	0.09
Kent Hills School	0.91	-1.78232	0.02	0.09
Whitmer Resource Center	0.88	-1.70775	0.02	0.09

Top to Bottom Ranking 210

Oakman Elementary / Orthopedic School	0.86	-1.65795	0.03	0.09
Neithercut Elementary School	0.8	-1.51926	0.04	0.09
Mount Clemens High School	0.79	-1.481406	0.04	0.09
Adams Upper Elementary School	0.73	-1.301875	0.06	0.09
Farwell Elementary School	0.69	-1.224075	0.07	0.09
Roseville High School	0.68	-1.220762	0.07	0.09
Grissom Middle School	0.64	-1.1131	0.09	0.09
Elmhurst School	0.64	-1.129125	0.09	0.09
Forrest G. Averill School	0.62	-1.06935	0.1	0.09
Sterling Heights Senior H.S.	0.61	-1.04689	0.1	0.09
Brandywine Middle School	0.57	-0.952625	0.13	0.09
TBA ISD Traverse Heights	0.56	-0.95485	0.13	0.09
South Middle School	0.53	-0.8868	0.14	0.09
South Lake High School	0.52	-0.84587	0.15	0.09
Shaftsbury Elementary Perry West Campus	0.51	-0.852025	0.15	0.09
Woodworth Elementary School	0.49	-0.812675	0.16	0.09
Lincoln Senior High School	0.46	-0.7508	0.18	0.09
Lakeview Elementary School	0.39	-0.629925	0.22	0.09
Sarac Jr/Sr High School	0.37	-0.603802	0.23	0.09
Stockbridge Middle School	0.4	-0.68932	0.2	0.09
Oakview Elementary School	0.37	-0.60762	0.22	0.09
Milan Middle School	0.33	-0.63098	0.22	0.09
Jefferson High School	0.27	-0.5692	0.24	0.09
Leon W. Hayes Middle School	0.24	-0.6374	0.22	0.09
Bue Vista High School	0.96	-1.947045	0.01	0.08
Shawnee Science, Math and Tech. Academy	0.92	-1.8445	0.01	0.08
Dixon Elementary School	0.88	-1.74724	0.02	0.08
Gompers Elementary-Middle School	0.88	-1.77004	0.02	0.08
Thirkell Elementary School	0.88	-1.74326	0.02	0.08
Field, Moses	0.84	-1.6375	0.03	0.08
Nolan Elementary-Middle School	0.84	-1.63714	0.03	0.08
Rose City Elementary School	0.83	-1.6285	0.03	0.08
Marquette Elementary-Middle School	0.81	-1.58936	0.03	0.08
Burton Intertiol School	0.79	-1.5449	0.04	0.08
Detroit Academy of Arts and Sciences	0.73	-1.39508	0.05	0.08
Battle Creek Central High School	0.73	-1.391152	0.05	0.08
Hillside Middle School	0.7	-1.31836	0.06	0.08
Quest Charter Academy	0.69	-1.2714	0.07	0.08
North Park Elementary	0.69	-1.2663	0.07	0.08
Western Intertiol High School	0.7	-1.31725	0.06	0.08
Crestwood Middle School	0.67	-1.21618	0.07	0.08
Highland Pines School	0.67	-1.2607	0.07	0.08
Cumberland School	0.64	-1.13732	0.08	0.08

Top to Bottom Ranking 211

Albert Schweitzer Elementary School	0.62	-1.108325	0.09	0.08
Jackson High School	0.63	-1.140222	0.08	0.08
River School	0.61	-1.09195	0.09	0.08
John Marshall Upper Elementary School	0.6	-1.086275	0.09	0.08
Paw Paw Early Elementary School	0.48	-0.8283	0.16	0.08
Southfield-Lathrup High School	0.46	-0.786404	0.17	0.08
Page Middle School	0.46	-0.80714	0.16	0.08
Evert Elementary School	0.45	-0.808425	0.16	0.08
Clawson Middle School	0.4	-0.71154	0.19	0.08
Lakeville High School	0.42	-0.797064	0.17	0.08
Clayton H. Symons Elementary School	0.37	-0.69898	0.2	0.08
Morrice Area High School	0.41	-0.797275	0.16	0.08
Creative Technologies Academy	0.35	-0.6914975	0.2	0.08
Carleton Elementary School	0.93	-1.98094	0.01	0.07
Ross-Hill Academy-Elementary	0.84	-1.71665	0.02	0.07
Brown, Rold Academy	0.82	-1.64014	0.03	0.07
Langston Hughes Academy	0.8	-1.6388	0.03	0.07
Jefferson Whittier School	0.78	-1.58836	0.03	0.07
Maple Lane School	0.76	-1.5417	0.04	0.07
Wolford Elementary School	0.72	-1.4027	0.05	0.07
Hillside Learning & Behavior Center	0.65	-1.255	0.07	0.07
Ypsilanti High School	0.62	-1.175136	0.08	0.07
Glenn W. Levey Middle School	0.56	-1.0303	0.11	0.07
Central Grade School	0.55	-1.01172	0.11	0.07
Roosevelt Elementary School	0.49	-0.86618	0.14	0.07
Camden-Frontier High School	0.47	-0.854232	0.15	0.07
Post Oak Magnet School	0.48	-0.90404	0.14	0.07
Newberry Middle School	0.5	-0.97556	0.12	0.07
Farwell High School	0.47	-0.976144	0.12	0.07
Garden City Middle School	0.44	-0.946075	0.13	0.07
Pine Trails Elementary School	0.42	-0.87262	0.14	0.07
Suttons Bay Senior High School	0.43	-0.93436	0.13	0.07
American Montessori Academy	0.33	-0.80965	0.16	0.07
Walled Lake Western High School	0.31	-0.786748	0.17	0.07
Benton Harbor Middle & High School	0.91	-1.993544	0.01	0.06
Gardner Elementary School	0.9	-1.963866667	0.01	0.06
Ann Visger K-5 Preparatory Academy	0.9	-1.96106	0.01	0.06
Parker Elementary-Middle School	0.86	-1.84068	0.01	0.06
Jemison, Mae C.	0.86	-1.84986	0.01	0.06
Frost Elementary School	0.83	-1.72148	0.02	0.06
Beecher High School	0.77	-1.57637	0.03	0.06
Middle School at Parkside	0.73	-1.4751	0.04	0.06
Alexander Hamilton Elementary School	0.71	-1.439	0.04	0.06

Top to Bottom Ranking 212

East Detroit High School	0.69	-1.421838	0.05	0.06
Decatur Middle School	0.69	-1.4187	0.05	0.06
Shiawassee RESD - Student Learning Center - West	0.66	-1.32615	0.06	0.06
Warren Mott High School	0.58	-1.169828	0.08	0.06
South Elementary School	0.51	-1.02665	0.11	0.06
Westdale Elementary School	0.52	-1.13265	0.09	0.06
Beadle Lake Elementary School	0.49	-1.035125	0.1	0.06
Parchment Central Elem. School	0.46	-0.985775	0.12	0.06
Morrice Area Elementary School	0.48	-1.03896	0.1	0.06
Baylor Woodson Elementary School	0.98	-2.23044	0	0.05
King, John R. Academic and Performing Arts Academy	0.86	-1.86824	0.01	0.05
Union High School	0.85	-1.866188	0.01	0.05
Aberdeen Elementary	0.83	-1.83755	0.02	0.05
Bingham School	0.82	-1.83745	0.02	0.05
Holland Woods Middle School	0.7	-1.51922	0.04	0.05
Pattengill Middle School	0.7	-1.54692	0.04	0.05
Hazel Park High School	0.67	-1.421894	0.05	0.05
Mackiw High School	0.66	-1.47985	0.04	0.05
Kendon School	0.64	-1.327866667	0.06	0.05
Harper Woods High School	0.66	-1.437026	0.04	0.05
Estabrook School	0.64	-1.39462	0.05	0.05
Edsel Ford High School	0.59	-1.27613	0.07	0.05
Willow Run High School	0.59	-1.413722	0.05	0.05
Wins Elementary School	0.57	-1.336025	0.06	0.05
Adlai Stevenson Middle School	0.54	-1.253525	0.07	0.05
Hamtramck High School	0.89	-2.059198	0.01	0.04
Brenda Scott Academy for Theatre Arts	0.87	-2.14078	0.01	0.04
Beckham, William Academy	0.87	-1.99248	0.01	0.04
Barton Elementary School	0.86	-2.09502	0.01	0.04
Mann Elementary School	0.84	-2.07722	0.01	0.04
Pulaski Elementary-Middle School	0.84	-2.04538	0.01	0.04
Trix Elementary-Middle School	0.83	-2.03422	0.01	0.04
River Rouge High School	0.83	-1.979082	0.01	0.04
h Tah Wahsh Public School Academy	0.81	-1.84155	0.01	0.04
Inkster High School	0.78	-1.772578	0.02	0.04
King High School	0.79	-2.00196	0.01	0.04
Young, Coleman A. Elementary	0.76	-1.68636	0.02	0.04
Northern High School	0.77	-1.941208	0.01	0.04
Oak Park High School	0.75	-1.814016	0.02	0.04
Ecorse Community High School	0.75	-1.74891	0.02	0.04
Litchfield Elementary School	0.74	-1.63515	0.03	0.04
Riddle Elementary	0.75	-1.781	0.02	0.04
Herrington School	0.74	-1.80788	0.02	0.04

Top to Bottom Ranking 213

C.W. Otto Middle School	0.74	-1.70056	0.02	0.04
Southwestern High School	0.74	-1.784394	0.02	0.04
Vanderbilt Area School	0.73	-1.79065	0.02	0.04
Palmer Park Preparatory Academy	0.71	-1.59864	0.03	0.04
Gardner Middle School	0.69	-1.61966	0.03	0.04
Ralph J. Bunche Academy	0.67	-1.7709	0.02	0.04
Litchfield High School	0.62	-1.72425	0.02	0.04
Eastern High School	0.6	-1.627044	0.03	0.04
Madison School	0.55	-1.49775	0.04	0.04
Aisha Shule/WEB Dubois Prep. Academy School	0.53	-1.641	0.03	0.04
Lamphere High School	0.43	-1.33611	0.06	0.04
Waverly Senior High School	0.39	-1.36303	0.05	0.04
New Haven High School	0.37	-1.374682	0.05	0.04
Marshall, Thurgood Elementary School	0.93	-2.75386	0	0.03
Campus Elementary	0.89	-2.511566667	0	0.03
Carstens Elementary-Middle School	0.88	-3.0874	0	0.03
Murphy Elementary-Middle School	0.88	-2.41154	0	0.03
Wright, Charles School	0.87	-2.674875	0	0.03
Academy of Flint	0.86	-2.26134	0	0.03
Northwestern High School	0.85	-2.179694	0	0.03
Pershing High School	0.83	-2.527452	0	0.03
Southeastern High School	0.83	-2.434194	0	0.03
Bow Elementary-Middle School	0.81	-2.39366	0	0.03
Denby High School	0.8	-2.607128	0	0.03
Center for Literacy and Creativity	0.79	-2.35255	0	0.03
Highland Park Community H.S.	0.78	-2.65022	0	0.03
Douglass Academy for Young Men	0.75	-2.14668	0.01	0.03
Cedar Lake Elementary School	0.75	-2.09235	0.01	0.03
Robichaud Senior High School	0.73	-2.036942	0.01	0.03
Pontiac High School	0.69	-2.156588	0	0.03
Mumford High School	0.68	-2.395496	0	0.03
Three Lakes Academy	0.68	-2.3631	0	0.03
J.W. Seton High School	0.57	-2.098984	0.01	0.03
Westwood Cyber High School	0.49	-1.848316	0.01	0.03
Glen H. Peters School	0.45	-1.677133333	0.02	0.03
Webberville High School	0.39	-1.719842	0.02	0.03
Finney High School	0.81	-3.104676	0	0.02
Central Collegiate Academy	0.79	-2.91873	0	0.02
Ford High School	0.78	-2.868792	0	0.02
Cody College Preparatory Upper School of Teaching and Learning	0.76	-3.505516	0	0.02
Southfield Regiol Academic Campus	0.61	-2.569214	0	0.02
Everett High School	0.57	-2.228724	0	0.02
Beacon Day Treatment Center	0.49	-2.22915	0	0.02

Top to Bottom Ranking 214

Burger Development Center	0.47	-2.505933333	0	0.02
Bozymowski Center	0.37	-1.855533333	0.01	0.02
Kettering High School	0.83	-4.153452	0	0.01
M.G. Millet Learning Center	0.54	-2.86555	0	0.01
Hazel Park Adult Education	0.58	-4.13745	0	0
Monroe County Education Center	0.46	-3.66725	0	0

## Appendix D

## Top-to-Bottom Ranking, Priority, Focus and Reward Schools Identification Business Rules

### Overview

**Top-to-Bottom Ranking:** List of schools, rank ordered by their performance. The ranking is based on *student achievement*, *student growth over time*, *school improvement over time* and *school achievement gaps* across all applicable tested subjects (mathematics, reading, science, social studies and writing), as well as graduation rate for schools that graduate students.

All public schools who meet the selection criteria are rank ordered to create the Top-to-Bottom (TTB) list using the following business rules:

- All students with test scores who are full academic year (FAY) are included.
- The school receives a ranking if at least 30 FAY students are tested in either the elementary/middle school span or the high school span (or both) for each year in two or more subjects.
- A student with a performance level of 1 or 2 is considered proficient.
- Schools are rank ordered using an *achievement index*, an *improvement (progress) index* and an *achievement gap index*. Schools with a graduation rate also have graduation rate and graduation rate improvement included in their ranking calculation.

Note: Achievement is weighted more heavily than improvement or achievement gaps. This is because the emphasis is on persistently low-achieving schools. Weighting achievement more heavily assures that the lowest performing schools, unless they are improving significantly over time, still receive the assistance and monitoring they need to begin improvement and/or increase their improvement to a degree that will reasonably quickly lead to adequate achievement levels.

**Priority Schools:** Schools in the bottom 5% of the Top-to-Bottom list are identified as *Priority Schools*.

**Focus Schools:** The 10% of schools with the largest achievement gaps according to the Top-to-Bottom list are categorized and treated for improvement as *Focus Schools*. The achievement gap is calculated as the distance between the average standardized scale score for the top 30% of students and the bottom 30% of students in each school. Any building that has a graduation rate less than 60% for three consecutive years is also included.

**Reward Schools:** The top 5% achieving schools as identified from the Top-to-Bottom ranking list, schools in top 5% in improvement composite index or a Beating the Odds school are identified as Reward schools. (The Beating the Odds business rules can be found at: [www.michigan.gov/reward](http://www.michigan.gov/reward).)

### Summary of changes for 2012-2013

*Changes in the business rules from the previous cycle to the current cycle are summarized on this page. Any of the changes that result in modifications to the calculations of the metrics are highlighted within the business rules (in blue italicized text).*

Removal of references to „AYP“ - replace with „Accountability Scorecard“

Modification of graduation rate – Use the best of 4, 5 or 6 year graduation rate and the corresponding improvement

Normalizing of student test scores

Capping of student test scores and z-scores of -2 and +2

Definition of a Title I school for purposes of identifying Focus and Priority schools: High Performing Bottom 30% Audit - Prohibit from appearing on the Focus list any schools whose bottom 30% group is relatively high performing as defined by:

The school's bottom 30% group's proficiency rate is higher than the state average proficiency rate in at least two subject areas AND  
The school's Top-to-Bottom percentile rank is at least 75

Good-Getting-Great - Prohibit from appearing on the Focus list any schools whose bottom 30% group has a high rate of improvement as defined by:

Remove any school that is at the 75th percentile on the Top-to-Bottom ranking or higher AND  
The school has gotten a "Green" (i.e. made safe harbor) in **every** subject/level combination for their bottom 30% subgroup on the Accountability Scorecard

Reward School Status: when a school reaches 85% proficient in each applicable subject (at least 30 FAY) and remains there for two years, it is awarded a "Green" status and given the opportunity to earn "Reward" status by continuing to show improvement. As long as the school remains above the 85% target for all students and any applicable subgroup, it will not drop below an overall "Green" rating. If the school does show improvement, it will be named a Reward School (starting in 2012-13, with 2013-14 being the first school year that any building could qualify).

All Priority schools (as determined in the lowest 5%) are to have an overall Accountability Scorecard color of red.

**Note:** If a school is red for participation for two consecutive years (or for three years out of five years), they are automatically named a Priority school and placed under the direction of the School Reform Officer (starting in 2012-13, with 2013-14 being the first school year that any building could qualify).



## Top-to-Bottom Ranking, Priority, Focus and Reward Schools Identification Business Rules

### Narrative

#### Top-to-Bottom Ranking

*Datasets* to be included (if available)

The most recent (up to) four years of published data for each officially adopted statewide achievement assessment<sup>1</sup>

- There is no cap on the number of MI-Access or MEAP-Access proficient scores that can be counted toward proficiency

The most recent four years of published data for four-year, five-year or six- year graduation rate (four years if four years are available)<sup>2</sup>

Previous year PLA (or Priority school) list which includes identifiers for Tier 1 pool, Tier 2 pool and State Reform Office schools (2010 and 2011 only)

Previous year SIG school list (2010)

Title I status list; [Title I participating for the 2010-11 school year](#)

*School and Student criteria* for inclusion in the Top-to-Bottom calculations:

Schools with at least 30 students defined as full academic year (FAY) over the two most recent years in at least two tested subjects will have the Top- to-Bottom ranking calculated

[Building/School entities that are identified as special education center programs as determined by the MDE's Office of Special Education are exempted from receiving a ranking in the Top-to-Bottom ranking and any of the labels \(Priority, Focus and Reward\)](#)

[Building/School entities that are identified as adjudicated youth programs as determined by the MDE's Office of Field Services are exempted from receiving a ranking in the Top-to-Bottom ranking and any of the labels \(Priority, Focus and Reward\)](#)

Schools with fewer than 30 FAY tested students in any given subject will not have that subject included in their ranking. A building could be ranked with as few as two subject areas and as many as ten

Closed schools:

- If a school is active as of September 30 of the current school year AND has data from the current school year attributed to it, the school receives a ranking, even if they are closed at the time of the ranking
- An indicator is added if the school is currently inactive at the time of list publication

FAY tested rules are as follows:

- Michigan has two semi-annual student count days, as provided in the State School Aid Act. These count days are the fourth Wednesday in September and the second Wednesday in February. These student count days are the basis of Michigan's definition of a full academic

<sup>1</sup> The maximum number of years available (up to four) will be used for each assessment program.

<sup>2</sup> To account for graduation rate in the Top-to-Bottom ranking.

- year. In addition, school districts report student enrollment at the end of year on the Michigan Student Data System (MSDS)
- Documentation of full academic year is provided by enrollment in the school or district on the pupil count dates by MSDS records
  - Other documentation of student mobility is not used under the definition
  - The MSDS is used to look-up prior enrollment to determine if a student is considered full academic year
  - MSDS collections used for elementary and middle schools: Fall, Spring and End of Year at the feeder school, which is the school that the student attended during the school year
  - MSDS collections used for high schools: Spring, End of Year, Fall and Spring
  - If a student is not reported in an enrollment count in any Michigan school during one of the MSDS collections but is reported in the other two and the student's school reported data, that student will be considered non-FAY. If a school does not submit MSDS data (i.e. there are no data available for any students in one of the MSDS collections), all students enrolled in that school during the prior count and the following count will be considered FAY, even though they are missing data on one of the counts

*Student Assessment criteria* for inclusion in the Top-to-Bottom calculations:

Top-to-Bottom ranking calculations are based on regular and alternate

assessments (MEAP, MEAP-Access (if available), MME and MI-Access

All students with valid scores in the assessments are included

All students with test scores who are FAY are included

Only public school students are included (no homeschooled or private school students)

The entity that is accountable for a student is based upon feeder school status

- Feeder school for the 2011-2012 calculations points is the entity that had the student in the 2011-2012 school year

- Feeder school for the 2012-2013 calculations points is the entity who had the student in the 2012-2013 school year

Note: The students for which a school is accountable are the same for both Accountability Scorecard and Top-to-Bottom ranking

Ninth grade students who repeat ninth grade technically have a high school as their "feeder" school for their social studies test. This test reflects 8<sup>th</sup> grade content standards and 8<sup>th</sup> grade learning. For the ranking calculations, the high school is still considered the "feeder" but any school that does not include grade 8 as a grade/setting in the EEM will not receive an elementary/middle school social studies content area in their ranking, even if they have students who populate that field

The same calculations as those used to determine the Accountability Scorecard student detail table (the base student-level table used in Accountability Scorecard calculations, including FAY and feeder rules). *This*

*means that the students for which a school is accountable are the same for both Accountability Scorecard and Top-to-Bottom ranking*

*Achievement (Two-Year Average)*

Most recent two years of published data from fall MEAP, grades 3-9 in mathematics, reading, writing, science and social studies

Most recent two years of published data from fall MEAP-Access, grades 3-9 in mathematics, reading and writing

Most recent two years of published data from fall MI-Access, grades 3-9 in mathematics, science and English Language Arts (ELA) with ELA being treated as reading is for MEAP and MEAP-Access (Note: For Supported Independence and Participation, students receive an ELA score. For Functional Independence, they receive a reading score, but do not take writing. These scores are all treated as reading in the calculations.)

Most recent two years of published data from spring MME, grade 11 in mathematics, reading, writing, science and social studies (with the addition of 12<sup>th</sup> graders who were FAY in the school but did not previously count toward either participation or proficiency for any school in a previous year)

Most recent two years of published data from spring MI-Access, grade 11 in mathematics, ELA, science and social studies

*Improvement (Two-Year Average, Three-Year or Four-Year Slope)*

Most recent two years of published Performance Level Change data from fall MEAP, grades 4-8 in reading and mathematics

Most recent two years of published Performance Level Change data from fall MEAP-Access, grades 4-8 in reading and mathematics (will be included in the Fall 2013 list, when two years of MEAP-Access data are available)

Most recent two years of published Performance Level Change data from fall MI-Access, grades 4-8 (Functional Independence only)

Most recent four years of published data for all other grades, subjects and tests (to calculate three or four-year improvement slopes). If a school does not have four years of data to produce a slope, DO NOT produce a zero slope for that school

- If the school has three years of data, generate the slope based on three years of data only
- If the school has two years of data, calculate the change from the previous year to the current year as the slope

*Graduation Rate and Graduation Rate Improvement*

Most recent two years of the **six-year**, five-year and four-year cohort graduation rates

Rate is based on a two-year average graduation rate (of the **six**, five or four- year cohort rates)

Improvement is based on a four-year improvement slope (of the **six**, five or four-year cohort graduation rate). If the school does not have two years of data to produce a slope, DO NOT produce a zero slope for that school

- If the school has less than two years of data, make the slope n/a and produce the graduation index based *solely on graduation rate for the most recent year*
- If the school has three years of data, generate the slope based on three years of data only
- If the school has only two years of data, generate a simple change score based on those two years of data

The graduation rate will be based on the better of the four, five or six-year graduation rate. The improvement rate used will correspond with the graduation rate (six, five or four cohort) used. (Starting with the 2012-13 cycle, six-year graduation rates are available for all years to calculate the improvement slope)

## Priority Schools Identification Calculations

Identify schools which are in the bottom 5% of the current Top-to-Bottom list

1. Using the Top-to-Bottom calculations and the percentile rank (variable name, spi.pr), identify all schools in the bottom 5<sup>th</sup> percentile
  - Calculate the number equal to five percent of the total number of [Title I participating schools in the 2010-11](#) school year
  - In rank order from lowest to highest, based on percentile rank (spi.pr), assign each school Priority status (excluding schools that are exempt) until that number of Title I buildings is met
  - Non-Title I buildings will be assigned Priority status based on rank, but will not count toward meeting the total number of Priority schools required
  - This number will be greater than the number of Title I buildings that receive a ranking, because some Title I buildings do not have enough students/data to receive a ranking
2. Create flag (named Priority) where 1=yes and 0=no
3. Indicator variable will be added to both the School Accreditation and School Performance Data tables
4. Label indicators for Priority schools: 1 = Yes and 0 = No
5. Closed schools:
  - If a school is active as of September 30 of the current school year AND has data from the current school year attributed to it, the school receives a ranking, even if they are closed at the time of the ranking
  - If a school receives an overall ranking, they are eligible for Priority school status
  - An indicator should be added if the school is currently inactive at the time of list publication

## Focus Schools Identification Calculations

1. Calculate achievement gap composite index for applicable (FAY at least 30) subjects for school j
  - a. Sum all applicable (FAY at least 30) subject achievement gap values for each individual educational entity
    - In the School Performance Data table, the columns that contain gap index values are those that begin with gapi (for gap index): gapi.zs.m.em, gapi.zs.r.em, gapi.zs.s.em, gapi.zs.t.em, gapi.zs.w.em, gapi.zs.m.h, gapi.zs.r.h, gapi.zs.s.h, gapi.zs.t.h, gapi.zs.w.h
  - b. Divide the sum of all available achievement gap values by total number of achievement gap values applicable (FAY at least 30) for each individual educational entity
    - Schools can have between 2 and 10 gap values
    - Create a new field that stores the number of achievement gap values used in the calculation
  
2. Sort schools by achievement gap composite index
  
3. Determine count of Focus schools to be identified
  - a. Number of schools must include 10% of Title I participating schools (include only [Title I participating](#) as determined in the **2010-11** school year) (Title I multiplied by 0.10 equals the target number).
    - In the ACCOUNTABILITY SCORECARD database, the Title I Buildings table
  - b. If the resultant is a decimal number, round down to the nearest whole number
  - c. Base this 10% number on the total population of Title I participating buildings, not only the number of Title I participating buildings that receive a ranking
  - d. Title I = Title I participating only, NOT Title I eligible but not receiving
  - e. High Performing Bottom 30% Audit - Prohibit from appearing on the Focus list any school whose bottom 30% group is relatively high performing as defined by:
    - The school's bottom 30% group's proficiency rate is higher than the state average proficiency rate in at least two subject areas AND
    - The school's Top-to-Bottom percentile rank is at least 75
  - f. Good-Getting-Great - Prohibit from appearing on the Focus list any school whose bottom 30% group has a high rate of improvement as defined by:
    - Remove any school that is the 75th percentile on the Top-to-Bottom ranking or higher AND
    - the school has gotten a "Green" (i.e. made safe harbor) in every subject/level combination for their bottom 30% subgroup on the Accountability Scorecard

4. Continue ranking until that number of Title I participating schools is achieved  
(Do not include Title I eligible beginning with 2013)
  - a. All schools with lower ranking (regardless of Title I status) are included in Focus schools
  - b. If a school is a Priority school, they cannot be a Focus school
    - Must get a number of schools equal to 10% of Title I participating schools that does not include schools also named as Priority schools
5. Add any schools who have a graduation rate below 60 for three years (variable grd60 in the School Performance Data table; if  $\text{grd60}=1$  &  $\text{Priority!}=1$ , then Focus)
6. Create indicator variable named Focus, where 1=yes and 0=no
  - a. Populate the variable with 0 for all non-Focus schools, not NULL
7. If a school receives an overall ranking, the school is eligible for Focus school status
8. Update the School Accreditation and School Performance Data tables with the
 

following fields:

  - a. Focus (indicator variable)
  - b. Composite gap index number
  - c. Number of gap indices that went into the composite gap index
  - d. The average z-scores for the top 30% and bottom 30% subgroup for the current and previous years
    - These fields are: bzs.3.av.em, bzs.2.av.em, bzs.3.av.h, bzs.2.av.h, tzs.3.av.em, tzs.2.av.em, tzs.3.av.h, tzs.2.av.h (for each subject)
  - e. Actual gap indices for each subject
    - Fields: gap.zs.em and gap.zs.h (for each subject)
9. All above fields should be populated for all schools, regardless of Focus or non-Focus status

## Reward Schools Identification Calculations

1. Identify any school which has already been identified as Priority, Focus or red in the Accountability Scorecard (beginning in 2013)
  2. For the remaining schools only (i.e. those not Priority, not Focus nor red in the Accountability Scorecard beginning in 2013), complete the remaining steps
  3. **Reward High Performing** - Identify top 5% of schools in overall Top-to- Bottom ranking
    - a. Of the remaining schools, identify the top highest performing by looking at the value in column "spi." For the top 5% of schools with the highest values of spi, then Reward = 1
    - b. Create indicator variable named Reward High Performing, where 1=yes and 0=no
  4. Calculate improvement composite index for school j.
    - a. Sum applicable (FAY at least 30) subject improvement values for each individual educational entity
      - i. In the School Performance Data table, these variables are named with ci (for change index) or with zsi (for zscore improvement): ci.m, ci.r, zsi.b1.s.em, zsi.b1.t.em, zsi.b1.w.em, zsi.b1.m.h, zsi.b1.r.h, zsi.b1.s.h, zsi.b1.t.h, zsi.b1.w.h
    - b. Divide the sum of applicable (FAY at least 30) improvement values by total number of improvement values available for each individual educational entity
      - i. Create a field that stores the number of improvement values used in the calculation
  5. Multiply .05 by total number of schools ranked in Top-to-Bottom list to determine count of Reward schools to be identified. If the resultant is a decimal number, round down to the nearest whole number
  6. Sort schools by improvement composite index
  7. Remove schools which are:
    - a. Priority
    - b. Focus
    - c. Overall red in the Accountability Scorecard (beginning in 2013)
    - d. Already identified as high performing Reward schools
  8. Identify the remaining top 5% improvement composite index schools, where the number of these schools is equal to 5% of the total number of schools ranked in the overall Top-to-Bottom ranking
  9. Create indicator variable named Reward High Progress, where 1=yes and 0=no
  10. Identify schools that have at least 85% proficient in each applicable subject (at least 30 FAY), where 1=yes and 0 = no
    - a. School must have 85% proficient in each applicable subject for both current and previous year
    - b. School must have a positive slope in all applicable subject areas
- c. Create indicator variable named Reward High Proficient, where 1=yes and 0=no

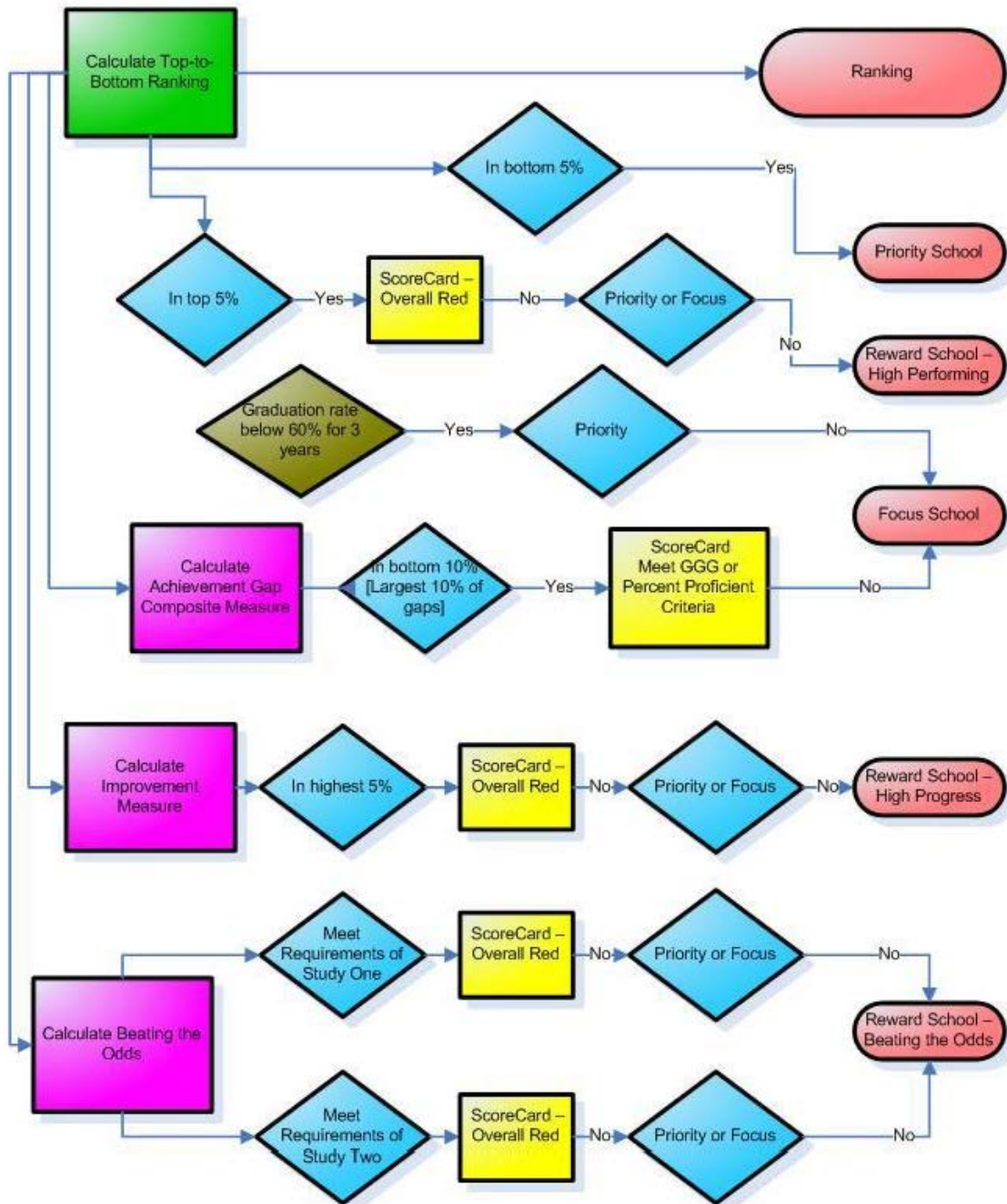


11. Create overall Reward indicator variable, where Reward=1 if either Reward High Performing or Reward High Progress or Reward High Proficient=1, and 0=neither
    - a. A school cannot be a Reward school if it is either a Priority or a Focus school
    - b. A school cannot be a Reward school if it is red in the Accountability Scorecard (beginning in 2013)
      - i. Determine Accountability Scorecard status from current school year, then remove all schools that are red in the Accountability Scorecard from eligibility for the Reward list
    - c. If a school would have been a Reward school but was removed from the Reward list for either reason (a or b), then set their Reward High Performing or Reward High Progress indicators to 0
  12. If a school receives an overall ranking, the school is eligible for Reward school status
  13. Update both School Accreditation and the School Performance Data tables with the following fields:
    - a. Reward indicator
    - b. Reward High Performing indicator
    - c. Reward High Progress indicator
    - d. Reward High Proficient
    - e. Composite improvement index
    - f. Number of improvement indices included in the overall improvement index
  14. Update Reward status to include Beating the Odds schools upon completion of the Beating the odds metric calculations.
    - a. RewardBTOSTudy1
    - b. RewardBTOSTudy2
- (Refer to the Beating the Odds business rules found here: [www.michigan.gov/reward](http://www.michigan.gov/reward))

Michigan's School Ranking system graphic:

# School Ranking Process Flow

2012-2013



## **Top-to-Bottom Ranking, Priority, Focus and Reward Schools Identification Business Rules**

### **Top-to-Bottom Technical Details**

#### **Content Areas to be included (if available)**

Reading  
Mathematics  
Science  
Social Studies  
Writing  
Graduation Rate (*see Graduation Rate Inclusion rules*)

#### **Assessment Data Inclusion rules**

Include only scores from students who are FAY  
Include fall scores in data for the previous year's school and previous grade using feeder codes  
Include spring scores for the current year's school and grade  
Calculate ranking for a school on a content area only if at least 30 FAY students were tested in the elementary/middle school span (3-8) **or** the high school span (9-12) **or** both for the most recent two years  
Include only public school students (no homeschooled or private school students)  
Calculate an overall ranking for schools only if they meet the 30 FAY threshold for at least two content areas  
Include schools only if they are not shared educational entities (SEEs) whose scores are returned to the sending districts for accountability purposes  
English Language Arts is used for MI-Access in place of Reading, since MI-Access does not offer a standalone reading test

#### **Graduation Rate Inclusion rules**

Include graduation rates if CEPI produces a graduation rate for a school. If a school does not qualify for the ranking based on 30 FAY students in at least two tested content areas, then their graduation data will not be included and used in generating statewide means and standard deviations for graduation rate  
While graduation rate is not a "content area," it will be treated similarly to all other content area measures in developing the scale for ranking schools

#### **Definitions**

Elementary/middle school = a school housing any of grades K-8  
High school = a school housing any of grades 9-12  
Secondary school = a school housing any of grades 7-12  
Full academic year (FAY) indicates that the student was claimed by the school on the previous two count days

Comparable schools are defined for regular elementary/middle schools (i.e., schools with assessment data in grades 3-8) as all elementary/middle

schools, and as high schools (i.e., schools with assessment data for grades 9-12) as all other high schools

Building/School entities that are identified as special education center programs as determined by the MDE's Office of Special Education are exempted from receiving a ranking in the Top-to-Bottom ranking and any of the labels (Priority, Focus and Reward)

Building/School entities that are identified as adjudicated youth programs as determined by the MDE's Office of Field Services are exempted from receiving a ranking in the Top-to-Bottom ranking and any of the labels (Priority, Focus and Reward)

## Conventions

A school classified as both elementary/middle and high school has ranks calculated for both sets of grades; final rank is an average of the two

The definitive version is based on mathematical operations as performed by Microsoft SQL

Overall school percentile ranks are truncated to the integer level (the decimal portion is deleted) to reflect that minor differences in percentile ranks are not practically important

Schools that are currently inactive but have performance data attributed to them receive a ranking

- Generate a Top-to-Bottom ranking for all schools that have sufficient performance data attributed to them based on the most recent two years
- If a school was open as of September 30 of the current school year AND has data attributed to it from the most recent school year, the school receives a ranking (even if the school is inactive at the time of the ranking)
- Add an indicator variable named "Active" where 1 = active at the time of list publication and 0 = inactive. This will be used in displays
- Schools closed at the time of list publication are obviously not subject to the sanctions/consequences (as they have been closed) but still receive the designation and will be reported to USED and in other reporting requirements as such

## Steps in Calculations

1. For each test, grade, content area (including graduation rate where applicable) and year, calculate a **normalized and capped z-score<sup>3</sup>** for each student based on their scale score, calculated using the following steps:
  - a. Order unique observed scores in ascending order
  - b. Obtain the frequency of each unique observed score
  - c. Calculate the percentile rank of each unique observed score as

---

<sup>3</sup> Calculating a z-score for each student within his or her context (the test taken, grade level, and content area) levels the playing field across tests taken, any differences in rigor of cut scores across grades, and any difference in rigor of cut scores across content areas. Using z-scores for individual students also makes the weighting impervious to changes in cut scores (recently enacted by the Michigan State Board of Education). Staying with percent proficient while raising cut scores significantly would result in significantly more than 5% of schools having zero percent proficient, and therefore, having more than 5% of schools in the "lowest 5%."

$$PR_j = 100 * \frac{F_{<j} + F_j}{2N}$$

where

$PR_j$  is the percentile rank of the  $j^{\text{th}}$  unique observed score,  
 $F_{<j}$  is the cumulative frequency of all unique observed scores with values less than the  $j^{\text{th}}$  unique observed score,  
 $F_j$  is the frequency of the  $j^{\text{th}}$  unique observed score, and  
 $N$  is the total number of observed scores.

This results in percentile ranks being in the (0, 100) range non-inclusive, which allows for step d to function appropriately.

- d. Calculate the normalized z-score of each unique observed score as

$$z_j^* = \varphi^{-1} (PR_j - 100)$$

where

$z_j^*$  is the normalized z-score of the  $j^{\text{th}}$  unique observed score, and  
 $\varphi^{-1}$  is the inverse of the standard normal cumulative frequency distribution.

Operationally, because Microsoft SQL does not have a built in function for  $\varphi^{-1}$ ,  $\varphi^{-1}$  is closely approximated by using a lookup table in which there are two columns: Percentile rank, and approximated  $\varphi^{-1}$ . The percentile ranks in the lookup table run from 0.005 to 99.995, with associated  $\varphi^{-1}$ s calculated to three decimals of precision. The lookup table is used by finding the percentile rank in the table nearest to  $PR_j$  and using the associated  $\varphi^{-1}$ .

- e. Replace any  $z_j^*$  with a value less than -2 with the value -2.  
 f. Replace any  $z_j^*$  with a value greater than 2 with the value 2.
2. [Repeat steps 3-7 separately for mathematics, reading, science, social studies and writing; and each grade range (elementary/middle versus high school) for each school with 30 or more FAY students tested in the grade and content area in the most recent two years for which data are available]
3. For each school, calculate an achievement index for the most recent two years in which data are available:
- Calculate the within-school average (mean) z-scores for the most recent (year 3) and next most recent (year 2) years tested for each school  $j$  ( $\mu_{zj3}$  and  $\mu_{zj2}$ , respectively)
  - Obtain the number of students tested in school  $j$  for the most recent year (year 3) and the next most recent year (year 2) for each school  $j$  ( $N_{tj3}$  and  $N_{tj2}$  for the most recent and previous year, respectively)
  - Calculate a weighted within-school average (mean) z-score over the most recent two years as  $\mu_{zj} = \frac{N_{tj3}\mu_{zj3} + N_{tj2}\mu_{zj2}}{N_{tj3} + N_{tj2}}$ .

- d. Calculate the achievement index for school  $j$  as  $ach_j = \mu_{zj} - \mu_z / \sigma_z$ , where  $\mu_z$  indicates the statewide mean of  $\mu_{zj}$  across all comparable schools,  $\sigma_z$  indicates the statewide standard deviation of  $\mu_{zj}$  across all comparable schools, and  $ach_j$  is a z-score delineating how many standard deviations above or below the statewide mean of comparable schools school  $j$  lies.
4. For each school, calculate a percent change index:
- Where adjacent year testing occurs (e.g., reading & math in elementary/middle school):
    - Obtain the numbers (in the table below) for the most recent year and for the previous year.

Previously Proficient	Performance Level Change									
	Most recent year					Previous year				
	SD	D	M	I	SI	SD	D	M	I	SI
No	$SD_{3n}$	$D_{3n}$	$M_{3n}$	$I_{3n}$	$SI_{3n}$	$SD_{2n}$	$D_{2n}$	$M_{2n}$	$I_{2n}$	$SI_{2n}$
Yes	$SD_{3y}$	$D_{3y}$	$M_{3y}$	$I_{3y}$	$SI_{3y}$	$SD_{2y}$	$D_{2y}$	$M_{2y}$	$I_{2y}$	$SI_{2y}$

Where "SD" indicates a significant decline in performance level from one year to the next, "D" indicates a decline in performance level, "M" indicates maintaining performance level, "I" indicates an improvement in performance level, and "SI" indicates a significant improvement in performance level. Previously proficient (yes/no) indicates whether the student was considered proficient on the test the year before

If a student had a previous performance level of 1, and a current performance level of 1, but had a PLC of D or SD, consider that student to have a PLC of M, and assign a value of 1

- b. Calculate the total number of FAY students with performance level change scores for the most recent year and the next most recent year as:

$$N_{PLC3} = SD_{3n} + SD_{3y} + D_{3n} + D_{3y} + M_{3n} + M_{3y} + I_{3n} + I_{3y} + SI_{3n} + SI_{3y},$$

and

$$N_{PLC2} = SD_{2n} + SD_{2y} + D_{2n} + D_{2y} + M_{2n} + M_{2y} + I_{2n} + I_{2y} + SI_{2n} + SI_{2y},$$

respectively. Note: If a school has 30 FAY students in a content area, but does not have 30 FAY students with performance level change scores, do not use performance level change for that school; use the slope calculations (described below)

- c. Calculate weighted improvement scores for each school using the weights given in the table below

Previously Proficient	Performance Level Change				
	SD	D	M	I	SI
No	-2	-1	0	1	2
Yes	-2	-1	1	1	2

Such that the two-year weighted performance level change for school  $j$  is calculated as the sum of the weighted improvement scores, divided by the weighted number of FAY students with improvement scores<sup>4</sup>

- d. The improvement index for school  $j$  is calculated as  $imp_j = PLC_j - \mu_{PLC} / \sigma_{PLC}$ , where  $\mu_{PLC}$  indicates the statewide mean of  $PLC_j$  across all comparable schools,  $\sigma_{PLC}$  indicates the statewide standard deviation of  $PLC_j$  across all comparable schools, and  $imp_j$  is a z-score delineating how many standard deviations above or below the statewide mean of comparable schools school  $j$  lies
- e. Where adjacent grade testing does not occur (i.e., for all calculations in high school [including graduation rate] and in science, social studies, and writing):
  - i. Obtain the school-mean z-score for a total of four years, including the present year and previous year ( $\mu_{zj3}$  and  $\mu_{zj2}$ , respectively), as well as the years two years and three years ago ( $\mu_{zj1}$  and  $\mu_{zj0}$ , respectively)
  - ii. Obtain the number of FAY students tested in the school ( $j$ ) for the four most recent years ( $N_{tj3}$ ,  $N_{tj2}$ ,  $N_{tj1}$  and  $N_{tj0}$ )
  - iii. Calculate the slope ( $\beta_j$ ) of the simple regression of school  $j$  mean z-scores on year (representing the annual change in school mean z-scores) if there are at least 20 FAY students tested in each of the years used for calculating slopes
  - iv. Special situations<sup>5</sup>
    - A. The improvement index should not be used to calculate a performance index for any content area where less than 20 FAY students were tested in any one of the years used to calculate slopes
    - B. Where there are only three years of data available for a given content area, calculate  $\beta_j$  as the three year simple regression of school mean z-scores on year
    - C. When there are only two years of data available,  $\beta_j$  for that content area will be as the simple gain in school mean z-scores over the past two years, or  $\beta_{1j} = \mu_{zj3} - \mu_{zj2}$ .
    - D. When there is only one year of data available, use the rate itself as the whole index
    - E. Use the improvement index slope for mathematics and reading in any elementary or middle school in which there are not 30 FAY students with performance level change data

<sup>4</sup> This change in the formula weights significant changes in performance level more heavily than smaller ones, weights changes in both directions more heavily for students who were not previously proficient to recognize that movement along the scale is more important for students that have not yet reached proficiency, and recognizes that maintaining a performance level below proficiency is inadequate.

<sup>5</sup> These special situations address the unavailability of four consecutive years of data to calculate a slope, such as would occur with the implementation of a new test or in the event that a school has opened or closed in the previous four years.

If a school does not have a grade 4 or higher, automatically use the improvement slope calculations, as opposed to performance level change, as no change data is available on students until at least fourth grade

- f. Calculate the improvement index for each school ( $j$ ) as  $imp_j = \frac{\beta_j - \mu_\beta}{\sigma_\beta}$  where  $\mu_\beta$  is the statewide mean improvement slope across all comparable schools (elementary/middle or high school),  $\sigma_\beta$  is the statewide standard deviation of improvement slopes across all comparable schools (E/MS or HS), and  $imp_j$  is a z-score indicating how far above or below the state average for comparable schools (E/MS or HS) the improvement slope for school  $j$  is
  - g. Compute average of improvement index for all schools for all available content areas
  - h. Identify 5 percent of all schools having the highest improvement index. These schools will be known as Reward schools (among others) if Accountability Scorecard is NOT red
5. Calculate an achievement gap index<sup>6</sup> for each school in each available subject using the following steps:
- a. Identify the top 30% and the bottom 30% of student z-scores in each school
  - b. Calculate the average z-score of the top 30% of student z-scores, and the average z-score of the bottom 30% of student z-scores
  - c. Calculate (combining across both the most recent and next most recent years) the average z-scores of the bottom 30% of z-scores in the school and subtracting from that the average of the top 30% of z-scores in the school. This gives a negative number which when compared to all schools in the state assures that schools with the highest achievement gap receive the lowest z-scores as intended
  - d. Calculate the achievement gap index for school  $j$   $gap_j$  as the z-score of that gap as compared to the statewide distribution across all comparable schools, such that the following quantities are produced
 
$$Gap_j = (z_j - \hat{u}) / (\hat{\sigma})$$
  - e. Compute average of achievement gap index for all schools - for all available content areas
  - f. Identify 10 percent of all schools having the lowest achievement gap index (bottom 10% of achievement gap index). These schools will be known as Focus schools. Follow rule for number of Title I participating schools

All schools with a sufficient number of students to meet the ranking criteria (30 in the current and most recent year in at least two content areas) receive a gap. The top and bottom subgroups do not need to be a certain size

---

<sup>6</sup> This addition to the business rules assures that schools with measurable achievement gaps retain a focus on achievement gaps.



6. Calculate the school performance index for each content area as  $Y_j = 2ach_j + imp_j + gap_j - 4$ , where  $Y$  represents a given content area (e.g.,  $math_j$ ). The calculation described is to be carried out in all cases except in the following special situations:
- Where achievement gap indices are not available, calculate the overall school performance index for each content area as  $Y_j = 2ach_j + imp_j - 3$ .
  - Where improvement indices are not available or the most recent year's proficiency rate is at or above 90%<sup>7</sup>, calculate the overall school performance index for each content area as  $Y_j = 2ach_j + gap_j - 3$ .
  - Where achievement gap indices are not available AND (improvement indices are not available OR the achievement index is or above 90% of students proficient), calculate the overall school performance index for each content area as  $Y_j = ach_j$ .
  - When calculating the school performance index for graduation rate, the two available components are the average graduation rate over the previous two years ( $ach_j$ ) and the graduation rate improvement ( $imp_j$ ). These two components are combined as  $Y_j = Grad_j = 2ach_j + imp_j - 3$ :  
Note: Graduation improvement is only considered if the school does not already have above a 90% graduation rate
7. Calculate the statewide school percentile rank on  $Y_j$  (for display purposes only), ranking within elementary/middle schools and within high schools at this point. This provides a content-area specific rank relative to other schools of the same level. This will be used only for display and will not figure into further calculations
8. For each content area, compare the content index (or grad rate index) to other elementary/middle schools or to other high schools. This creates a z-score ( $Y_jz$ ) for each content/grad index that compares the school's index in that content area or grad index to other schools of the same level
9. Calculate the overall school performance index ( $spi$ ) across all content areas (including graduation rate where applicable) in which the school received a school performance index z-score ( $spi$  is calculated as the average of from 2 to 11  $Y_jz$ 's depending upon the grade configuration and enrollment). For schools without a graduation rate index,  $spi$  is calculated as the straight average of all  $Y_jz$ 's calculated for the school. For schools with a graduation rate index, the school performance index on graduation rate must account for exactly 10 percent of the overall school performance index. This is accomplished by multiplying the straight average of all other  $Y_jz$ 's calculated for the school by the value 0.9, and adding to that result the quantity  $Grad_j$  multiplied by the value 0.1
10. Calculate the school's overall percentile rank ( $pr$ ) across all content areas (including graduation rate as applicable) as the school percentile rank on  $spi$ .
11. Identify Priority Schools: 5 percent of all schools having the lowest school percentile rank on  $spi$  (bottom 5% of school performance index). These

---

<sup>7</sup> This modification ensures that high performing schools are not penalized for being unable to demonstrate improvement of the same magnitude of lower performing schools, due to ceiling effects.

schools will be known as Priority schools (See Priority Schools Identification section for complete details)

12. Identify Focus Schools: The 10 percent of schools with the largest achievement gaps are *Focus Schools* (See Focus Schools Identification section for complete details on Focus schools).
13. Identify Reward Schools: The 5 percent of all schools having the higher school percentile rank (top 5% of school performance index). These schools will be known as Reward schools (among others) if Accountability Scorecard is NOT red, nor a Priority school, nor a Focus School (See Reward Schools Identification section for complete details on all types of Reward schools)