



**Coordinator Name**

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**Planning Team**

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**Description of the Program (2011-2012)**

The Missouri School Improvement Program (MSIP) includes standardized assessments (Missouri Assessment Program, or MAP) as an indicator of student, school and district performance. The MSIP IV index score is a composite of the percentage of students in four performance categories from "Below Basic" to "Advanced".

**Description of How the Program's Services are Developed and Delivered**

Senate Bill 380, often referred to as the "Outstanding Schools Act," the state school-reform law enacted in legislature in 1993, required the Missouri State Board of Education to adopt no more than 75 academic performance standards. These standards establish the knowledge, skills and competencies necessary for students to "successfully advance through the public elementary and secondary education system of this state; lead to or qualify a student for high school graduation; and prepare students for postsecondary education or the workplace or both." These "Show-Me Standards" are guides to what students should be able to know and to do. There are 40 knowledge standards and 33 performance standards. MSIP uses the MAP tests to measure students' mastery of these standards.

**Key Program Stakeholder Groups**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Students       | <input type="checkbox"/> Board of Education |
| <input type="checkbox"/> Parents                   | <input type="checkbox"/> Taxpayers          |
| <input type="checkbox"/> Staff                     | <input type="checkbox"/> Other (31T)        |
| <input checked="" type="checkbox"/> Administrators |   |

**Student and/or Stakeholder Needs Addressed by the Program**

A regular standardized assessment program can be a reliable indicator of student learning.

**Overall Goals of the Program**

**Expected Measureable Outcomes**

Goal 1: Show Progress on State Assessment	1.1 Comparison of scores for three years as measured by MSIP IV index for State, District, Technical Schools, and Separate Sped schools will show improvement.
Goal 2: Make progress on reducing gap between subgroups.	2.1 Comparison of score differences for three years as measured by MSIP IV index for race, IEP status, and Free or reduced lunch status will show improvement. 2.2 Receive the bonus points on State APR evaluation for closing achievement gap.
Goal 3: MAP and MAP-A scores will be comparable	3.1 Comparison of MSIP IV index scores for three years will show comparable scores for MAP and MAP-A.

### **Evaluation Questions**

- What is the status of the program's progress toward achieving the goals?
- What do students and other stakeholders consider to be the strengths and weaknesses of the program?
- What do staff consider to be the strengths and weaknesses of the program?
- How does the program's actual implementation compare with the program's design?
- How should priorities be changed to put more focus on achieving the goals?
- How should goals be changed? Any added or removed?

### **Data Collection Methods**

- Surveys and questionnaires
- Interviews
- Document reviews
- Observations
- Focus groups
- Case studies
- Assessments
- Other (Specify)



**Evaluation Results**

**What is the status of the program’s progress toward achieving the goals?**

Goal 1: Show Progress on State Assessment

Measurable Objective 1:	1.1 Comparison of scores for three years as measured by MSIP IV index for State, District, Technical Schools, and Separate Special Education schools will show improvement.
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Communication Arts

SSD as a whole and the special education schools improved over a three year period. The North Tech index declined, but the decline was not statistically significant at  $p < .05$ . All groups were higher than the state average.

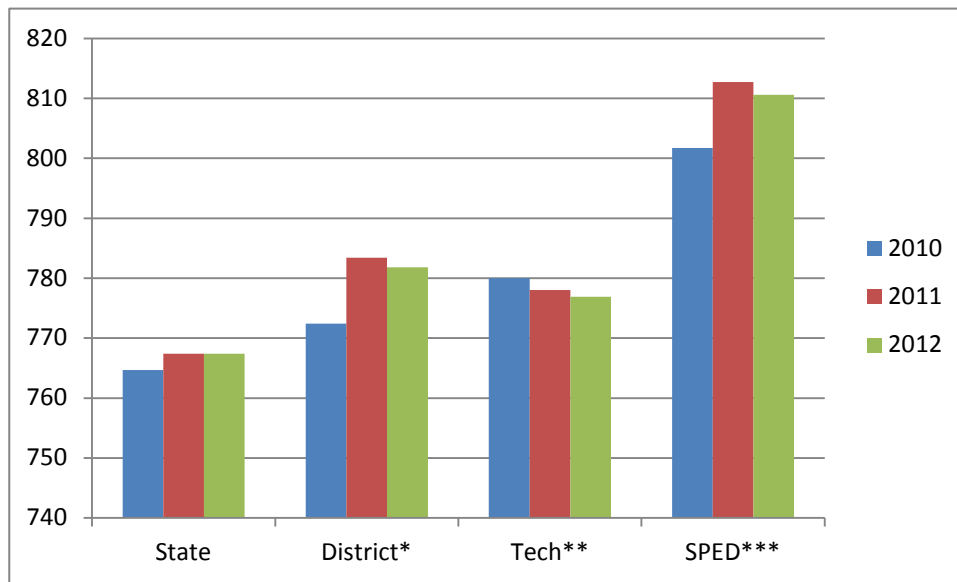


Chart 1. Communication Arts- State Comparison by MAP Index

Communication Arts			
	2010	2011	2012
State	764.7	767.4	767.4
District*	772.4	783.4	781.8
Tech**	780.0	778.0	776.9
Special Education***	801.7	812.7	810.6

Table 1: Communication Arts- State Comparison MAP Index

\* Includes all SSD students reported to DESE for MAP

\*\* Includes only scores for North Technical High School

\*\*\* Includes Separate Special Education Schools

## Mathematics

All groups have shown improvement over the last three years. North Tech scores are lower than state average and include only Algebra I scores. Since Algebra I is usually taken before 10<sup>th</sup> grade these scores represent students who were behind grade expectations upon entering North Tech.

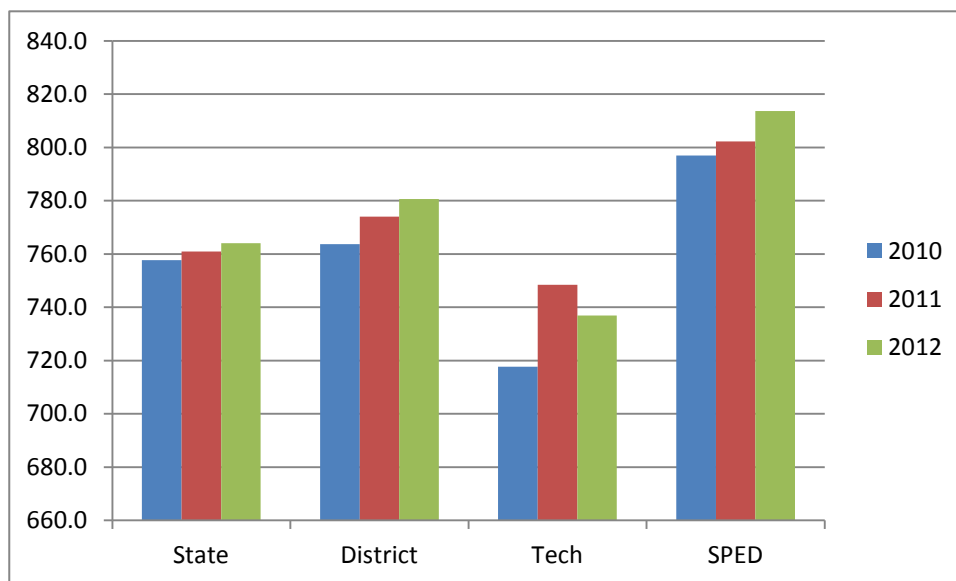


Chart 2. Math – State Comparison by MAP Index

Math			
	2010	2011	2012
State	757.6	760.9	764.0
District	763.7	774.0	780.6
Tech	717.6	748.4	736.8
Special Education	799.7	804.9	816.7

Table 2. Math – State Comparison by MAP Index

Goal 2: Make progress on reducing gap between subgroups.

Measurable Objective 1:	2.1 Comparison of score differences for three years as measured by MSIP IV index for race, IEP status, and Free or Reduced Lunch status will show improvement.
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Results: Ethnicity Comparison:

**Communication Arts**

The gap between Communication Arts MAP scores for white students and black students has grown over the last three years. In 2010 the difference between scores was not statistically significant ( $p < .05$ ). The differences for both 2011 and 2012 scores were significant ( $p < .05$ ). \*

\* The test used was an independent samples t-test comparing achievement level codes grouped by race.

Table 3. Communication Arts - Ethnicity Comparison by MAP Index

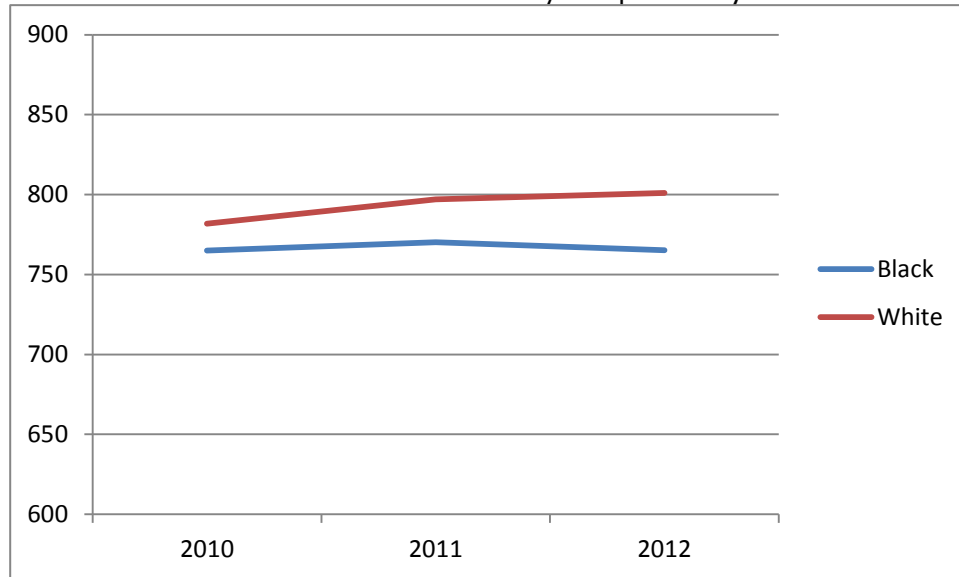


Chart 3. Communication Arts - Ethnicity Comparison by MAP Index

Communication Arts			
	2010	2011	2012
Black	765.0	770.2	765.1
White	781.8	796.9	801.0
GAP	16.8	26.7	35.9

**Mathematics**

The gap between scores on the Math MAP assessment for black and white students has risen over the last three years. The difference between groups has been significant ( $p < .05$ ) for all three years. \*

\* The test used was an independent samples t-test comparing achievement level codes grouped by race.

Math			
	2010	2011	2012
Black	747.4	747.1	758.9
White	779.6	795.2	794.5
GAP	32.2	48.1	35.6

Table 4. Math - Ethnicity Comparison by MAP Index

## Mathematics

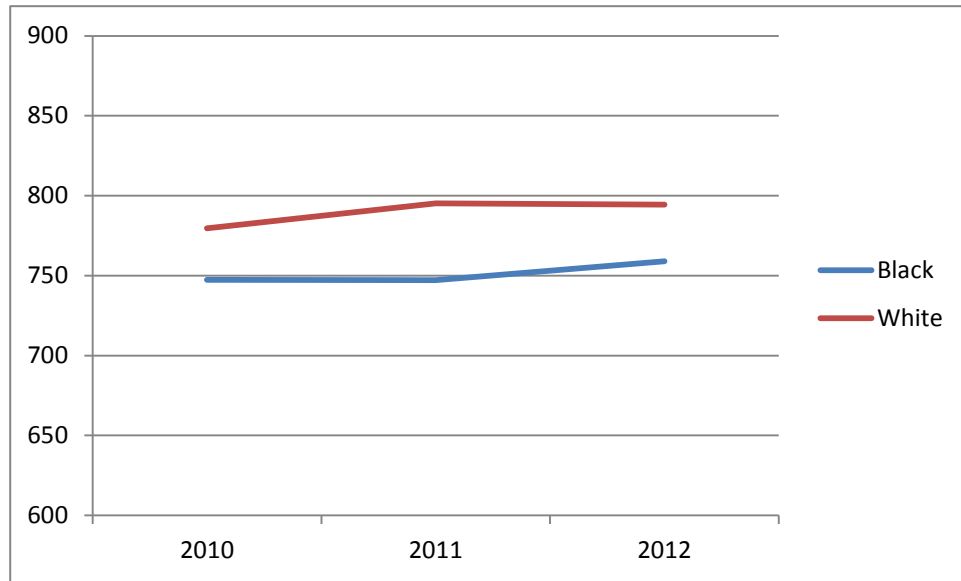


Chart 4. Math – Ethnicity Comparison by MAP Index

Because of the significance of the disparity between the scores of black and white students an addendum containing further analysis has been added at the end of this report.

**IEP Status Comparison:** The gap between Communication Arts scores for IEP and Non-IEP students has declined over the last three years. Currently, the Index for IEP students is slightly higher than for non-IEP students. The differences are not significant.

Communication Arts			
IEP	771.1	784.3	782.9
Non-IEP	779.3	780.3	777.6
GAP	8.2	-4.0	-5.4

Table 5. Communication Arts – IEP Comparison by MAP Index

### Communication Arts – IEP Comparison by MAP Index

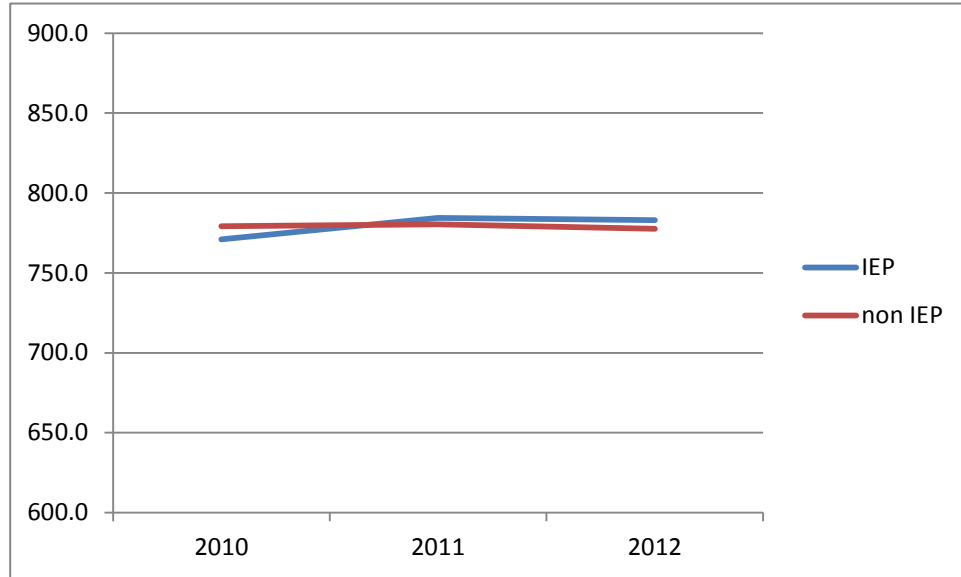


Chart 5. Communication Arts – IEP Comparison by MAP Index

### Mathematics – IEP Status Comparison by MAP Index

The Gap between Math scores for IEP and Non-IEP students has increased over three years with IEP students scoring significantly higher in 2010 and 2012. ( $p < .05$ ).

Math			
	2010	2011	2012
IEP	765.4	775.1	783
Non IEP	730	761.1	731.6
GAP	-35.4	-14	-51.4

Table 6. Mathematics – IEP Status Comparison by MAP Index

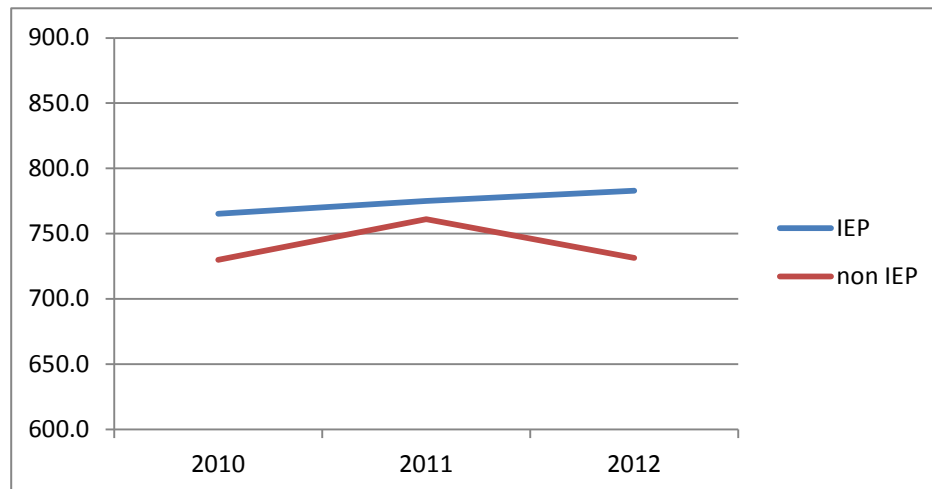


Chart 6. Mathematics – IEP Status Comparison by MAP Index

**Free/Reduced Lunch Status Comparison:**

**Communication Arts**

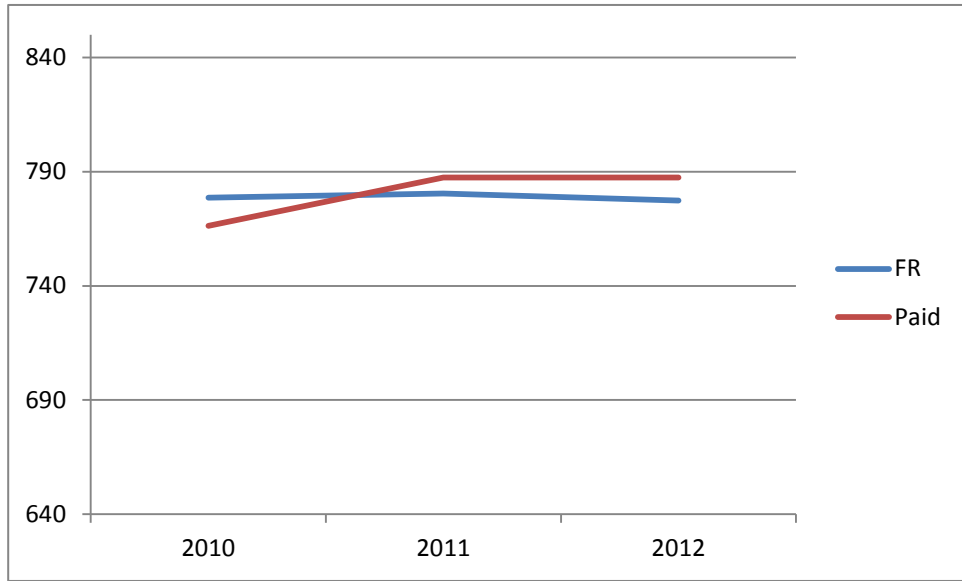


Chart 7. Communication Arts – Free/Reduced Comparison by Map Index

Communication Arts: Free/Reduced			
	2010	2011	2012
Free/ Reduced	778.5	780.4	777.3
Paid	766.3	787.5	787.4

Table 7. Communication Arts – Free/Reduced Comparison by Map Index



### Mathematics

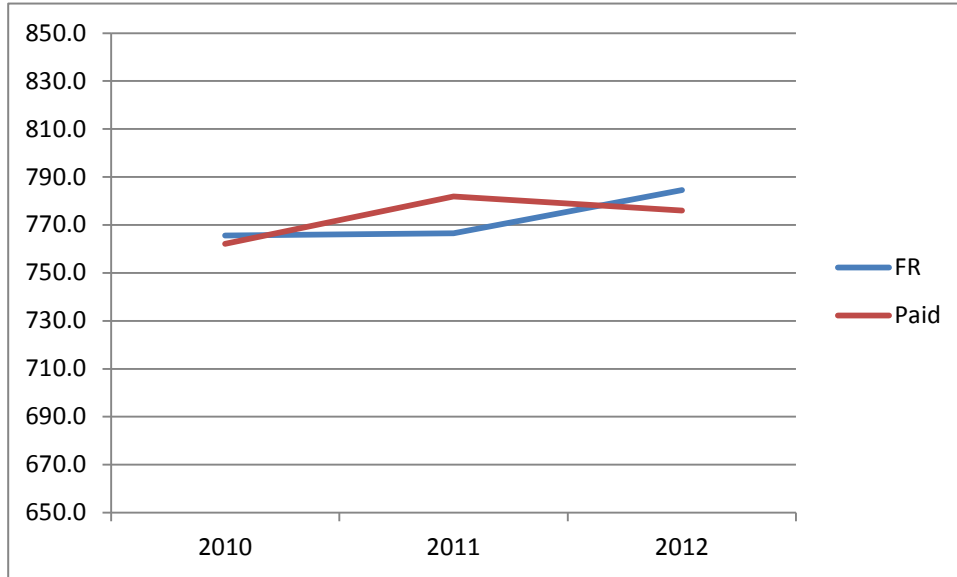


Chart 8. Mathematics - Free/Reduced Comparison by Map Index

Mathematics: Free/Reduced			
	2010	2011	2012
Free/Reduced	765.6	766.5	784.6
Paid	762.2	781.8	776.1

Table 8. Mathematics - Free/Reduced Comparison by Map Index

Measurable Objective 2:	2.2 Receive the bonus points on State APR evaluation for closing achievement gap
Results: SSD received bonus points on the State APR for closing the achievement gap. SSD improvement in closing the gap between Free/Reduced and non-Free/Reduced was higher than for the state majority.	

Goal 3: MAP and MAP-A scores will be comparable

Measurable Objective 1:	3.1 Comparison of MSIP IV index scores for three years will show comparable scores for MAP and MAP-A.
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Results: Not Met

### Communication Arts

Table 9. Communication Arts – MAP/MAP-A Comparison by Map Index

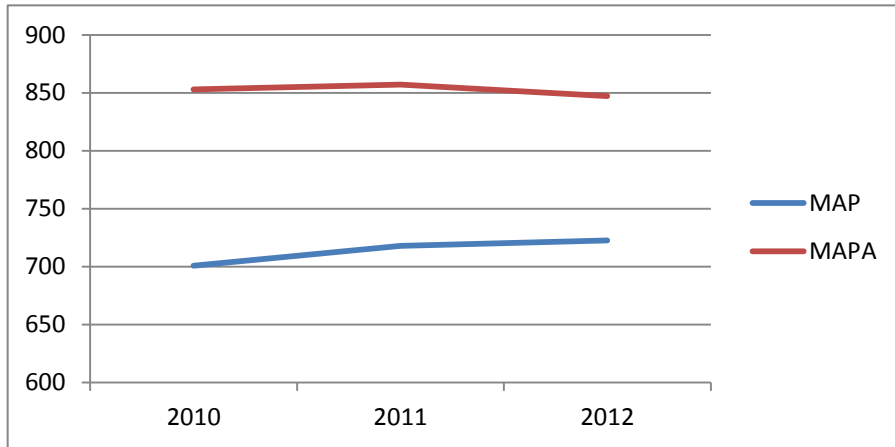


Chart 9. Communication Arts – MAP/MAP-A Comparison by Map Index

Communication Arts			
	2010	2011	2012
MAP	700.8	718.0	722.7
MAP-A	852.8	857.1	847.0
GAP	152.0	139.1	124.3

### Mathematics

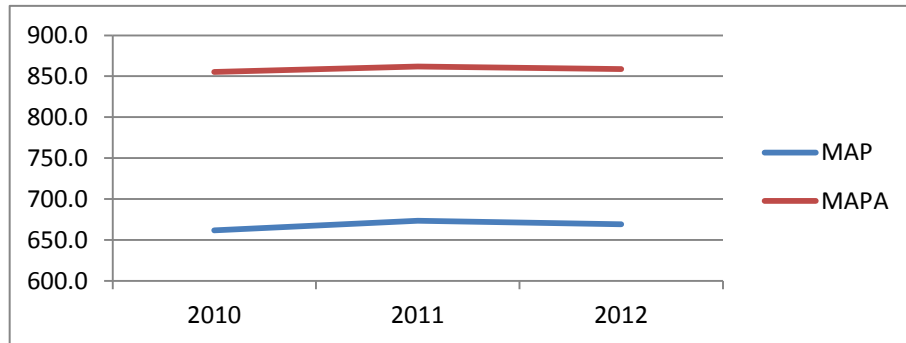


Chart 10. Mathematics - MAP/MAP-A Comparison by Map Index

Math			
	2010	2011	2012
MAP	661.9	673.6	669.3
MAP-A	855.1	862.0	858.9
GAP	193.2	188.4	189.6

Table 10. Mathematics - MAP/MAP-A Comparison by Map Index

## Addendum to Program Evaluation Plan: Further Analysis of Disparity Based on Race

Since the data indicated that a disparity exists between the scores of black and white students, these data were further analyzed to include comparisons within gender and socio-economic groups. Scores from students at the special education schools and North Technical HS were included.

Table 1. Statistically Significant Disparity in Communication Arts and Math State Assessments

Significant Disparity Based on Race in Scores of Communication Arts and Math from 2010 to 2012.		
3 Year Comparison	Com Arts	Math
SPECIAL EDUCATION Female	N	N
SPECIAL EDUCATION Male	D	D
NCT Female	D	N/A
NCT Male	D	N/A
D = Significant Disparity, N = No Significant Disparity, N/A not calculated due to small sample size.		

Scores in the separate Special Education schools show disparity for Males in both Communication Arts and Mathematics. Females show no significant disparity on those tests. At North Tech there were significant disparities for both males and females in Communication Arts. The samples of Math scores were too small to calculate.

Table 2: Significant Difference Free/Reduced and non-Free/Reduced

Significant difference between Free Reduced and non-Free Reduced as measured by Map Scores		
Group	Significant Difference	% Free/Reduced
SPECIAL EDUCATION	Yes	56.10%
SPECIAL EDUCATION Females	Yes	53.30%
SPECIAL EDUCATION Males	Yes	57.80%
NCT	No	76.40%
NCT Females	No	79.50%
NCT Males	No	71.40%

Table 2 compares students receiving free/reduced lunch with those who do not. One factor to consider is the effect of Free or Reduced lunch status on achievement scores. In the separate Special Education schools there was a significant difference for all groups between the students who received Free or Reduced lunch and those that did not. At North Tech there was no significant difference between the two groups. North Tech had a higher percentage of students receiving Free or Reduced lunch.

Table 3. Racial Disparities on State Assessment Scores for Students who receive Free or Reduced Lunch and for Students who do not receive Free or Reduced Lunch, 2010-2012.

All Scores	Free/Reduced	Non Free/Reduced
SPECIAL EDUCATION Female	D	N
SPECIAL EDUCATION Males	D	D
NCT Females	D	N
NCT Males	N	D

D = Significant Disparity, N = No Significant Disparity

Table 3 shows comparisons based on Free and Reduced lunch status. This table compares the achievement scores of black students to white students within groups by gender and lunch status. In the second column the students who received free or reduced lunch were compared against each other for disparity in achievement scores based on race. In the third column those who did not receive free or reduced lunch were compared with each other. In both schools, males showed a disparity based on race in achievement in the non-free or reduced group. Females showed no significant disparity for the non-free or reduced students. In all categories except North Tech males there was a significant difference based on race in the free or reduced lunch groups.

Table 4. Groupings by Gender and Race in the Separate Schools MAP Scores, 2010-2012.

MAP Scores 2010-2012		
Gender	Race	N
Female	Black	18
	White	34
Male	Black	198
	White	181

Table 5. NCT Math and Communication Arts EOC scores.

EOC Math and Science scores 2010-2012			
CONTENT_AREA			N
Communication Arts	Female	Black	52
		White	5
	Male	Black	31
		White	2
Mathematics	Female	Black	14
		White	0
	Male	Black	14
		White	2

This analysis of disparity based on race indicates that there are significant differences based on gender and free or reduced lunch status. Further analysis and research is indicated to answer new questions:

- What factors are affecting the achievement of black males in Special Education and technical schools? How can we better meet their needs?
- How do socio-economic factors affect the performance of black students differently than they affect white students? How can we better meet the needs of students receiving free or reduced lunch?

Current research indicates two possible frameworks for explanation, and possible effective interventions. Abraham Maslow's hierarchy of needs suggests that students whose physiological and safety needs are not being met will encounter difficulties functioning at higher levels. Pierre Bourdieu's theory of social capital suggests ways in which middle class families may convey habits and values to their children that can persist through periods of low socio-economic status. New research into achievement levels based on gender suggests that males may have more difficulties than females in some school settings. Review of the literature and further analysis is required to determine effective interventions.

Action plans emerging from needs identified in the analysis of disparity are listed at the end of this report.

**What do key staff and stakeholders consider to be the strengths and opportunities for improvement /weaknesses of the program?**

**Strengths**

- District and separate schools' math Index scores, including MAP and MAP-A, have risen each of the last three years.
- SSD received the gap bonus on MSIP calculations based closing the gap based on Free and Reduced lunch status.
- There is no significant difference based on free/reduced lunch status at North Tech.

**Opportunities/Weaknesses**

- The gap between black and white students has increased over a three year period in both Communication Arts and Mathematics.
- The gap between MAP and MAP-A student scores has increased over three years in the separate schools.
- There is a significant difference in MAP scores between Free/Reduced students and non-Free/Reduced students in the separate schools.

**How well aligned are the program's priorities and processes with the goals of the program?**

The program's priorities and processes are well aligned with the goals of the program.

**Deployment Level of Program Services: Services are well deployed, although deployment may vary in some areas or schools.**

Should priorities be changed to put more focus on achieving the goals?

Yes  No

Board Approved: 4/23/2013

Should goals be changed, added or removed?

Yes  No

## Evaluation Implications

### **General Recommendation Resulting from the Evaluation**

Select from the following possible recommendations resulting from the evaluation:

- Continue the program as is. It is meeting or exceeding all expected outcomes.
- Expand the program, replicating effective components.
- Streamline, refine, or consolidate elements of the program.
- Redesign the program.
- Reevaluate the purpose and/or goals of the program.
- Discontinue ineffective or nonessential program components.
- Discontinue the program.
- Other (Specify.)

### **Action Plans**

1. Examine the feasibility of bringing community health services onto the campuses in the North County schools, Ackerman, Northview, and North Tech. These services might include vaccinations, eye screening and referral and other health services.
2. Examine the feasibility working with the PBIS department to bring community mental health services onto the campuses in the North County schools.
3. Develop a program to improve parental engagement which goes beyond parental involvement. One outcome could be permission and support for health and mental health services.

### **Review of Recommendations from previous Program Evaluation.**

#### ***Special Education:***

*1. During the 2011--12 school year, staff in Special Education schools should continue process of identifying Tier II/Tier III interventions for Communication Arts and Mathematics. Materials should be purchased and staff trained for implementation in 2012--13.*

The Tiered Intervention committee has developed a plan for providing interventions which includes the core curriculum and additional interventions for students needing more intensive instruction. The plan will be implemented during the 2013-2014 school year.

*2. SSD should continue the process of identifying formative and predictive assessments for Communication Arts and Mathematics. Assessments should be adopted by implementation in 2012--13.*

Formative and predictive assessments have been revised and were implemented during the 2012-2013 school year.

*3. SSD staff should continue use of current quarterly assessments in Communication Arts and Math in data teams and for planning areas of emphasis in instruction.*

Formative assessments are used on a regular basis for planning in data teams.

*4. SSD staff should continue process of monitoring and supporting POS agencies in implementing programs to measure and improve student achievement.*

SSD staff have monitored formative testing of students to determine individual progress. Plans are being developed to implement the same assessments in the POS agencies as are used in the separate schools. Implementation of these plans will occur in 2013-2014.

*5. SSD staff should expand use of online credit recovery and credit enhancement systems.*

JDC is continuing to use the PLATO system for credit recover where appropriate.

### **Career Technical**

*1. North Technical is using StAR Testing as a predictive assessment tool to identify students needing intervention. Building Data Teams identified student performance level at which an increase of student scores would have the most impact towards meeting EOC scores at the building. Use StAR Testing on an ongoing base during the academic year to monitor the effectiveness of progress towards mastery of required competencies.*

Data teams at North Technical use StAR assessment results to plan and adjust instruction in all classes.

*2. Expand after school tutoring services offerings for all academic students enrolled at North Technical.*

North Technical continues to expand offerings for after school tutoring services.

*3. Continue strategies implemented this year from recommendations of the 2010--2011 disaggregated data report.*

Previously recommended strategies have been incorporated into the standard processes in the technical schools.

### **Cost and Funding Source**

The costs are included in the budget.