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## Program Description

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### ***Summary Description of Program (2013-2014)***

SSD's Career and Technical Education Division (CTE) operates two technical high schools with more than 30 programs in a wide range of technical areas. Technical course offerings range from traditional technical fields, such as precision machining and construction, to such burgeoning fields as network administration and health sciences. Programs at the two schools accept applications from any 10th- through 12th-grade students from St. Louis County.

### ***Purpose or Mandate***

The purpose of CTE is to prepare students to enter the world of work either immediately after high school or after continued formal education. This preparation includes instruction in numeracy and literacy as well as technical skills developed through authentic career learning environments and curricula designed around current and future industry requirements. Work ethic and social skills necessary to work with others are essential to this preparation.

### ***Which specific CSIP/MSIP goals does this Program support?***

Objective 1.1 Ensure achievement for all students.

Strategy 1.1.2 Review, revise, and implement curriculum for SSD Special Education Schools and Career and Technical Education Schools to align with state/industry standards as well as provide professional learning to all SSD staff on Missouri learning standards.

Objective 1.2 Ensure that all students are ready to participate in college, career or community programs.

Strategy 1.2.1 Develop and implement a systematic process of individualized student planning to ensure that students have the necessary skills and opportunities to complete their program, graduate, and meet post-secondary outcomes.

### ***Who are the Customers/Stakeholders?***

- Students
- Parents
- Sending Schools
- Future Employers

### ***What are the Customer/Stakeholder requirements?***

Customers require certifications for students with the accompanying technical skills, safety of students, career advice, and appropriate positive post-secondary placement.

### ***What is this program expected to accomplish?***

The CTE system is expected to recruit and educate students to be able to find placement in post-secondary employment or education. In order to help students in this process, the program is expected to enable students to attain industry recognized credentials.

***Briefly describe how this Program works***

Students entering the program are provided with career exploration to match their interests to the career opportunities available. Successful advising and career exploration results in placement in a technical program that is the best match for them. Upon entry into the technical program the students are provided experiential, hands on learning in an authentic environment with the tools and processes for the appropriate career. Instructors teach the students to perform skills that are essential for success in that industry and the theoretical and practical knowledge that supports and enables those skills. At the end of the program the student takes assessments to provide industry recognized credentials that will help in attaining a job after high school or continuing on to further education.

***What resources (type and quantity) are required to execute this plan?***

In order to execute this plan it is necessary to have instructors who are expert in the industry in order to coach and instruct the students in the necessary career skills. Curriculum that is appropriate and relevant to current and future industry positions is also necessary. Finally, an authentic learning environment with appropriate tools and equipment for the students to learn the appropriate technical and collaborative skills is essential.

# Action Plan Summary

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## *Previous Cycle Goals and Outcomes*

### *2011-2012 Overall Goals*

Goal 1: Prepare students for successful careers and gainful employment through their mastery of program specific and general workplace skills.

Goal 2: Provide equitable access to technical education by attracting a student-body that reflects the demographics of St. Louis County.

Goal 3: Align Programs with Regional Economic Plans and Needs.

### *2012-2013 Overall Goals*

Goal 1: Train students in the skills needed to succeed in Industry.

Goal 2: Provide skilled instructional staff for students in academic and technical classes.

### *2011-2012 Outcomes*

#### *2012-2013 Outcomes*

1.1 Meet Positive Student Placement rates for Perkins Standards. 1.2 95% of seniors will demonstrate mastery of essential program specific workplace competencies (ISMS).

2.1 Percent enrolled by gender and ethnicity will reflect the gender and ethnic makeup of St. Louis County.

3.1 Program Performance as measured with Program Status Indicator (PSI) Scorecard will increase overall from previous years.

### *2012-2013 Outcomes*

1.1 The number of appropriate Industry Recognized Certifications (IRCs) adopted will increase by 10% over last year.

1.2 80% of 12th graders will demonstrate 80% mastery of essential skills.

1.3 North Technical High School (NCT) will be rated "on track" or better for MSIP 5 College and Career Ready (CCR) standard 3.4 which includes IRCs.

2.1 100% of academic staff will be highly qualified in the area they teach.

Obj.

2.2 Median pay rates for technical instructors will be above the national average reported in the Occupational Outlook Handbook of the Bureau of Labor Statistics.

### ***Current Cycle (2013-2014) Goals and Outcomes***

Goal 1: Train students in the skills needed to succeed in Industry.

1.1 The number of students earning Industry Recognized Certifications (IRC) will increase by 5% over the previous year.

1.2 80% of 12th graders will master 80% of essential skills identified within their program.

Goal 2: Meet the goals of MSIP College and Career Readiness.

2.1 Earn "on track" status for MSIP standard 3.1-3 which includes measures for ACT, SAT, COMPASS, and the Armed Services Vocational Aptitude Battery (ASVAB).

2.2 The percent of students at or above the state standard for 3.1-3 will increase by 5% over the previous year.

2.3 Earn "on track status for MSIP standard 3.4 which includes measures for Advanced Placement (AP), International Baccalaureate (IB) and Technical Skills Attainment (TSA) as well as dual enrollment in college.

2.4 The percent of students at or above the state standard for 3.4 will increase by 5% over the previous year.

2.5 Earn "on track" status for MSIP standard 3.5-6\* which includes measures for positive post-secondary placement.

2.6 The percent of students at or above the state standard for 3.5-6 will increase by 5% over the previous year.

# Evaluation Plan Summary

## *Program Evaluation Scope and Charter*

This evaluation analyzes data from the 2013-2014 school year for North Technical High School and South Technical High School although some data is only available for North Tech since South Tech has half day students only. Specific attention is given to those measures which affect the MSIP score for SSD and therefore affects accreditation.

## *Qualitative Measures - Evaluation questions to be used*

- What are the major accomplishments or benefits of this program?
- How well did this program fulfill its purpose or mandate?
- What do customers and other stakeholders consider to be the strengths and opportunities for improvement /weaknesses of the program?
- How well-aligned are the program's processes with the goals of the program?
- What is the level of deployment of this program's services?
- How should resources be changed to improve this program?
- How should goals be changed, added, or removed?

## *Quantitative Measures - Evaluation questions to be used*

- What is the status of the program's progress toward achieving its goals?
- What are the actual costs of this program, and how do they compare to planned costs?
- What is the estimated actual benefit-cost or cost-effectiveness of this program?



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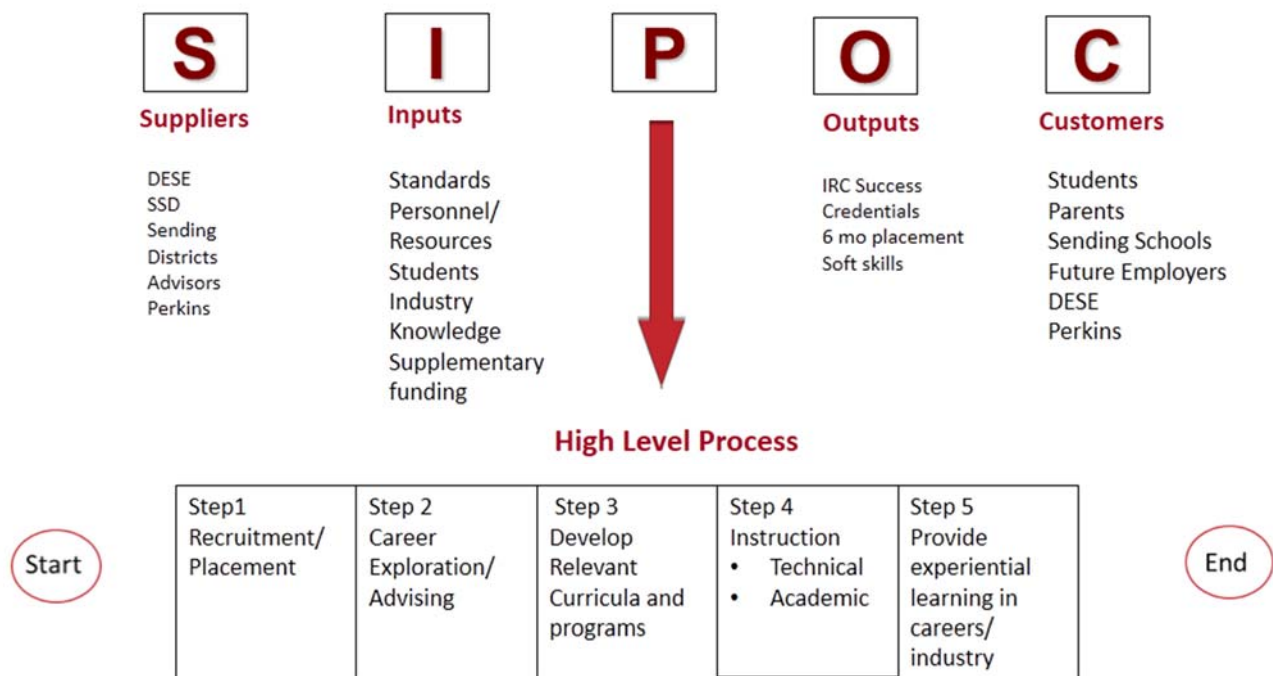
**Evaluation Summary**

**Purpose or Mandate**

The purpose of Career and Technical Education (CTE) is to prepare students to enter the world of work either immediately after high school or after continued formal education. This preparation includes instruction in numeracy and literacy as well as technical skills developed through authentic career learning environments and curricula designed around current and future industry requirements. Work ethic and social skills necessary to work with others are essential to this preparation.



Career and Technical Education



**SIPOC** is a process improvement tool which orients the major process steps in a program in relation to its suppliers and related inputs upstream and the customers and outputs downstream.

**What were the major accomplishments or benefits of this program?**

The Career and Technical Education program increased the number of students earning Industry Recognized Certifications over the previous year thus providing credentials to the student for successful placement in employment or post-secondary education. Students from the CTE program contributed directly to MSIP standards 3.1-3 and 3.4 (student performance on college/career readiness measures) in which the SSD

received 12 MSIP points. CTE students also contributed to the points awarded for MSIP Assessment and consistently graduate at a rate above 95% contributing to 18 MSIP points on the current MSIP report.

**How well did this program fulfill its purpose or mandate?**

Inadequate     Approaching Satisfactory     Satisfactory     Excellent

**What factors made essential contributions (+/-) to this rating?**

Although CTE students made progress on several College and Career Readiness (CCR) MSIP standards they were not rated "On Track" to meet the goals set by DESE.

**Evaluation Results**

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

**Goal 1: Train students in the skills needed to succeed in Industry.**

Measurable Objective 1:	1.1 The number of students earning Industry Recognized Certifications (IRC) will increase by 5% over the previous year.														
Results: Met. The number of students earning Industry Recognized Certifications increased by 9.1% from 2012-13 to 2013-14.															
<table border="1"> <thead> <tr> <th colspan="4">Industry Recognized Certifications</th> </tr> <tr> <th>2012-2013</th> <th>2013-2014</th> <th>Increase</th> <th>Percent increase</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><b>253</b></td> <td style="text-align: center;"><b>276</b></td> <td style="text-align: center;">23</td> <td style="text-align: center;">9.1%</td> </tr> </tbody> </table>				Industry Recognized Certifications				2012-2013	2013-2014	Increase	Percent increase	<b>253</b>	<b>276</b>	23	9.1%
Industry Recognized Certifications															
2012-2013	2013-2014	Increase	Percent increase												
<b>253</b>	<b>276</b>	23	9.1%												

Measurable Objective 2:	1.2 80% of 12th graders will master 80% of essential skills identified within their program. (Perkins guideline*)		
Results: Met. 608 out of 748 12 <sup>th</sup> grade students (81.3%) mastered 80% or more of essential skills.			

**Goal 2: Meet the goals of MSIP College and Career Readiness.**

Measurable Objective 1:	2.1 Earn "On Track" status for MSIP standard 3.1-3* which includes measures for ACT, SAT, COMPASS, and the Armed Services Vocational Aptitude Battery (ASVAB).		
Results: Not Met. SSD attained the "Approaching*" level for progress on MSIP standard 3.1-3.			

Measurable Objective 2:	2.2 The percent of students at or above the state standard for 3.1-3 will increase by 5% over the previous year.								
Results: Met. The percent of students at or above the state standard for 3.1-3 increased by 7.9%									
<table border="1"> <thead> <tr> <th colspan="2">MSIP 3.1-3 ACT/SAT/COMPASS/ASVAB</th> </tr> <tr> <th>2013</th> <th>2014</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">31.1%</td> <td style="text-align: center;">39.0%</td> </tr> </tbody> </table>				MSIP 3.1-3 ACT/SAT/COMPASS/ASVAB		2013	2014	31.1%	39.0%
MSIP 3.1-3 ACT/SAT/COMPASS/ASVAB									
2013	2014								
31.1%	39.0%								

Measurable Objective 3:	2.3 Earn "On Track" status for MSIP standard 3.4* which includes measures for Advanced Placement (AP), International Baccalaureate (IB) and Technical Skills Attainment (TSA) as well as dual enrollment in college.
Results: Not Met. SSD attained the "Approaching*" level for status and progress on MSIP standard 3.4.	

Measurable Objective 4:	2.4 The percent of students at or above the state standard for 3.4 will increase by 5% over the previous year.						
Results: Met. The percent of students at or above the state standard for 3.4 increased 9.6%.							
<table border="1"> <thead> <tr> <th colspan="2">MSIP 3.4 AP/IB/TSA</th> </tr> <tr> <th>2013</th> <th>2014</th> </tr> </thead> <tbody> <tr> <td>32.2%</td> <td>41.8%</td> </tr> </tbody> </table>		MSIP 3.4 AP/IB/TSA		2013	2014	32.2%	41.8%
MSIP 3.4 AP/IB/TSA							
2013	2014						
32.2%	41.8%						

Measurable Objective 5:	2.5 Earn "On Track" status for MSIP standard 3.5-6* which includes measures for positive post-secondary placement.
Results: Not Met. SSD attained the "Approaching*" level for status on MSIP standard 3.5-6.	

Measurable Objective 6:	2.6 The percent of students at or above the state standard for 3.5-6 will increase by 5% over the previous year.						
Results: Not Met. The percent of students at or above the state standard for 3.5-6 increased by 4.6%.							
<table border="1"> <thead> <tr> <th colspan="2">MSIP 3.5-6 Positive placement of graduates</th> </tr> <tr> <th>2013</th> <th>2014</th> </tr> </thead> <tbody> <tr> <td>75.1%</td> <td>79.7%</td> </tr> </tbody> </table>		MSIP 3.5-6 Positive placement of graduates		2013	2014	75.1%	79.7%
MSIP 3.5-6 Positive placement of graduates							
2013	2014						
75.1%	79.7%						

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

<p>Strengths</p> <ul style="list-style-type: none"> <li>• The number of students earning IRCs at both technical high school is increasing significantly.</li> <li>• Students at both locations are displaying comprehensive essential skill mastery.</li> <li>• The percent of students meeting the MSIP state standard 3.1-3 increased by 7.9%.</li> <li>• The percent of students meeting the MSIP state standard 3.4 increased by 9.6%.</li> </ul>
<p>Opportunities/Weaknesses</p> <ul style="list-style-type: none"> <li>• To earn "On Track" status for MSIP state standard 3.1-3 which includes measures for ACT, SAT, COMPASS and the Armed Services Vocational Aptitude Battery Test (ASVAB).</li> <li>• To earn "On Track" status for MSIP state standard 3.4 which includes measures for Advanced Placement (AP), International Baccalaureate (IB) and Industry Recognized Credential (IRC) assessment as well as dual enrollment to earn college credit in high school.</li> <li>• To earn "On Track" status for MSIP state standard 3.5-6 which includes measures for positive post-secondary placement.</li> <li>• To increase the percentage of students who are at or above the state standard for 3.5-6 by 5% in the 2014-2015 school year.</li> </ul>



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

The processes are well aligned to the goals of the program.

**Deployment Level of Program Services:** Services are well deployed, with no significant gaps.

**Should resources be changed to improve this program?**  Yes  No

**Should goals be changed, added or removed?**  Yes  No

**Evaluation Implications**

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**What are the actual costs of this program and what is the cost per student?**

**Total Annual Costs:** **\$12,692,216.64**

Teaching Staff	\$9,835,697.64
Other Payroll	\$511,340.00
Building Accounts	\$2,345,179.00
Total	\$12,692,216.64

**Total Enrollment 2014 (October Count Full Time Equivalent) 1,115.28**

**Program Costs per student \$11,380.30**  
(Not including transportation, support staff or administrators)

**Estimated Cost Effectiveness**

- Mandated program; costs cannot be significantly reduced.
- Mandated program; costs could be reduced (include in Action Plan, below).
- Benefits greatly outweigh costs.
- Benefits outweigh cost, but improvement appears possible.
- Costs outweigh benefits (include in Action Plan, below).

**Explanation**

Providing an authentic learning environment for career oriented activities requires up to date equipment that is often expensive.

**General Recommendation Resulting from this 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.

## **Action Plans**

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### **What specific actions are needed?**

- **Standard 3.1-3 – Provide test taking and content preparation for the ACT and COMPASS**
  - Review Princeton, Cambridge and other provider materials for ACT “test-taking strategy” implementation. (short term and medium term)
  - Train teachers in utilization of PLATO material for ACT content preparation. (short term and medium term)
  - Continue work with STLCC personnel to engage in COMPASS preparation and assessment on both North and South campuses. (short term, medium term and long term)
  
- **Standard 3.4 – Improve IRC assessment and dual enrollment participation**
  - Continue to review student IRC results to determine the most appropriate assessments for our students within DESE’s guidelines. (short term and medium term)
  - In-service instructors on IRC preparation materials and attitudinal impact on student assessment. (short term, medium term and long term)
  - Increase course offerings which allow students to earn dual credit (Sociology, Forensics, math offerings). (short term, medium term and long term)
  
- **Outreach to parents and students regarding the benefits of successful dual credit acquisition – Parent Teacher Conferences, Social Media, etc. (Standard 3.5-6) – Increase opportunities for parents and students to learn of post-secondary opportunities and funding sources**
  - Continue with Free Application for Federal Student Aid (FAFSA) workshops on both campuses. (ST)
  - Support FAFSA outreach through social media. (medium term and long term)
  - Continue with “Options Night” on the South campus and duplicate on the North Tech campus with increased post-secondary institution participation (community and four-year colleges, apprenticeship opportunities, etc.), (short term, medium term and long term)
  - Sustain guidance counselor presence on both campuses with an increased focus on Missouri Connections and initial 2-year post-secondary plan – “What will you do with your first two years after high school?” (short term, medium term and long term)
  - Increase visibility of the Scholarship Foundation work with both campuses, which can personalize student plans for scholarship attainment. (short term, medium term and long term)

### **Operational Definitions**

DESE uses four standards to describe how a district is performing on MSIP standards.

- “Exceeding” goals are being exceeded
- “On Track” the district is on track to meet the goals
- “Approaching” the district is not yet on track, but approaching the goals
- “Floor” the district is in the lowest category of achievement

DESE standard 3.1-3 is a Career Readiness indicator which measures district performance on ACT, SAT, COMPASS, IRC, or ASVAB assessments.

DESE standard 3.4 is a Career Readiness indicator which measures district performance on Advanced Placement, International Baccalaureate, Dual Credit, Technical Skills Assessment or early college.

DESE standard 3.5-6 is a Career Readiness indicator which measures district performance on positive placement of graduates (college, post-secondary training, military, or field related to CTE program).

Perkins Guidelines refers to the standards of the Carl D. Perkins Career and Technical Education Act of 2006.