Case Study

Reading Muhlenberg Career and Technology Center
Reading, Pa

The Pennsylvania CTE Best Practices Initiative is documenting the promising practices that Pennsylvania Career and Technical Education administrators and teachers are utilizing as they work to improve program quality and student results.

Reading Muhlenberg’s Key Strategies at-a-Glance

- **“Teaching Smarter”** by integrating literacy and numeracy lessons in a targeted and ongoing matter.

- **Complete revision** of the school-wide curriculum to align with NOCTI and PA standards.

- **Program learning guides** provide program consistency and enable instructors to individualize instruction for students.

- **Establishing** strategies and goals based on performance data.

- **“MAX Teaching”** literacy strategies emphasize comprehension and engaging interactive learning.

- **Development** of a proactive and goal-oriented teacher evaluation system.

- **Applying three key principles** to implement change: map it out, challenge without overwhelming and provide support.
Introduction

Founded in 1968, Reading Muhlenberg Career and Technology Center (RMCTC) in Reading, Pennsylvania, provides career and technical education (CTE) to students from the Reading and Muhlenberg school districts. Reading is an urban district and Muhlenberg includes both suburban and rural areas. Students in grades 10, 11 and 12 spend half of their day at RMCTC and the other half at their home high school. RMCTC offers courses in 31 CTE program areas. There are 35 CTE instructors, two academic coaches, a special needs facilitator and 11 instructional assistants on staff at RMCTC.

RMCTC serves a demographically diverse student population of approximately 1,100 students. Approximately 68 percent of RMCTC students are Latino, 22 percent are Caucasian and 10 percent are African-American. The majority of students live in an urban environment, and approximately 85 percent of the student population is economically disadvantaged. Twenty-seven percent of RMCTC students receive special education services.

The Joint School Committee acts as the governing body. Six board members, including three from each of the two school districts served by RMCTC, serve on the board. The leadership of RMCTC also includes an administrative director, an assistant administrator and a supervisor of CTE.

During the 2006-2007 school year, RMCTC experienced significant changes to its facility, its administrative leadership and its mission. A renovation project modernized facilities and increased the square footage of the RMCTC building by 58,271 square feet to a total of 193,762 square feet. Upon completion of the two-year renovation in the summer of 2007, the Joint School Committee changed the name from Reading Muhlenberg Area Vocational-Technical School to the Reading Muhlenberg Career and Technology Center.

In January 2007, Gerald Witmer became the administrative director of RMCTC and began to enact significant changes in several aspects of operations to better support student performance. He and his staff developed a new mission, identified core beliefs and established a strategic planning process. In May 2007, RMCTC administrators and staff adopted a strategic plan which outlined performance goals. As of the 2009-2010 school year, RMCTC had met or exceeded most of these initial goals.

Students at RMCTC continue to demonstrate significant improvement in their academic and technical skill proficiency. Between the 2006-2007 school year and the 2008-2009 school year, the percentage of students earning a National Occupational Competency Testing Institute (NOCTI) certificate increased from 31 percent to 52 percent, and the percentage of students performing at the proficient or advanced level on the Pennsylvania System of School Assessment (PSSA) in math increased from 14 percent to 22 percent. During this period, students made gains in other areas of academic and technical skill achievement as well.
The Pennsylvania CTE Best Practices Initiative, carried out by the Meeder Consulting Group in partnership with the PDE-BCTE, is documenting the strategies used by CTE programs to create standards aligned systems and to support those systems with people, processes and partnerships. All of these strategies are aligned to the goal of increasing academic and technical achievement among students.

Leaders and teachers in Career and Technical Education (CTE) programs that improve are very intentional about achieving student success. They thoughtfully develop a Standards Aligned System, and support that system with people, processes and partnerships to deliver results.

Pennsylvania has adopted the SAS (Standards Aligned System) as a comprehensive approach to improvement of student achievement across the Commonwealth. The SAS model is supported by six elements: Clear Standards; Interventions; Materials and Resources; Instruction; Curriculum Framework and Fair Assessment.

More information about the SAS Model can be found at www.pdesas.org.
Integrate Literacy and Numeracy Strategies into CTE

A critical component of the initiative to improve student performance at RMCTC targeted the need to change instructional practices to better meet the needs of students. The leadership team pushed faculty to move beyond a traditional approach to teaching, and to seriously evaluate and rethink their programs so they more effectively and explicitly teach both technical and academic skills. To make this change, the staff “really had to look at ‘How do we teach smarter?’” stated Mr. Witmer. For RMCTC faculty, teaching smarter meant integrating literacy and numeracy lessons in a targeted and ongoing manner.

The use of enhanced literacy and numeracy strategies became a cornerstone of the Foundations for Improvement established in September 2007. Beginning with the 2007-2008 school year, instructors were expected to integrate a literacy activity into each lesson as one of three Foundations for Improvement. By the 2008-2009 school year, instructors were expected to meet two more Foundations for Improvement that centered on integration:

- Integrate numeracy in daily activities.
- Require students to write every day.

To help instructors, the leadership team made available several professional development opportunities that focused specifically on literacy and numeracy training and on preparing instructors to conduct turn-around training for their colleagues. For example, teams of instructors that received literacy training through the Governor’s Institute (a professional development activity focused on literacy that was offered by the Pennsylvania Department of Education in the summer of 2006) and Technical Centers That Work (TCTW) serve as “experts” and are an additional resource for staff members who need support with integration strategies. The TCTW improvement model supports technical centers in setting high expectations for CTE students and establishing practices to ensure students are both college- and career-ready upon graduation from high school.

The leadership team also hired math and literacy instructional coaches to help instructors learn how to develop lessons that explicitly integrate literacy and numeracy strategies. The math and literacy coaches meet with instructors to help them identify relevant academic standards to incorporate in a lesson, resources that support their lesson and strategies to teach these standards. They also model integrated lessons for instructors.

IN THE SPOTLIGHT

CTE teachers observe improved classroom performance when they integrate literacy and numeracy strategies into their lessons.

RMCTC staff have access to multiple resources from professional development and the instructional coaches to help them apply integration practices. As instructors became more proficient with integration and as the cadre of instructors specifically
trained in integration strategies grew, the initiative to “teach smarter” became more sustainable.

RMCTC staff members have embraced the concept of integrating literacy and numeracy not just for improving student performance on standardized academic tests, but just as importantly, for preparing students to be successful in their area of career preparation. As one instructor noted, “We have to integrate literacy and numeracy. It’s within our trades and it’s very important for students to understand that.” Instructors use daily writing prompts, assign research papers and teach note-taking skills and comprehension strategies to improve their students’ literacy skills. In addition, they teach math skills in a way that explicitly connects technical learning to these relevant skills, helping students to see the real-world connections in their classroom learning.

RMCTC administrators and instructors believe the integration of literacy and numeracy strategies helps students develop both academic and technical skills. One welding instructor observed that as he began to spend more lesson time on literacy and numeracy strategies, his students became more proficient and independent in learning their technical skills. As a result, when students participated in applied work in the lab (or in CTE parlance, the “shop”), they had fewer questions for the instructor. Many instructors specifically credit integrated instruction with increasing student performance on NOCTI assessments and the PSSA. Beyond the assessment results, instructors also observed improvements in student motivation and confidence as students became more comfortable and proficient in their literacy and numeracy skills.

STANDARDS ALIGNED SYSTEM CURRICULUM FRAMEWORK

Develop a Standardized and Aligned Curriculum

In September 2007, RMCTC administrators and instructors began a three-year curriculum development project. Two primary outcomes guided this project: 1) to develop learning guides for each of the program levels and 2) to align programs with the Pennsylvania Program of Study guidelines.

During the 2007-2008 school year, administrators and staff began a complete overhaul of curriculum in all of the career and technology center’s (CTC) programs. They examined curriculum practices in use across Pennsylvania and the nation, obtained curriculum samples and decided how they wanted to build and package their curriculum. They used information on job titles, NOCTI requirements and industry certifications as reference documents for developing task lists for each program. By the end of the school year, task grids, including time requirements for each task, were completed with crosswalks to NOCTI and industry certifications. Instructors also developed learning guides for all Level I (first year) tasks. In
September 2008, instructors began creating learning guides for Level II tasks, and by the end of the 2009-2010 school year, instructors will have completed the Level III learning guides.

The creation of program learning guides produced two main benefits for instructors and students. First, if an instructor leaves RMCTC, the curriculum guide provides program consistency even with a change in instructor. Secondly, learning guides make it easier for instructors to individualize instruction so students can pace themselves using the guide to identify tasks they need to complete. Instructors find this aspect of the learning guides especially helpful when students miss extended days of school. Through this approach, students begin to take responsibility for their learning, rather than having to wait for the instructor to tell them what to learn next. This is a core element of moving from a “seat time” approach to a “competency-based” instructional design.

IN THE SPOTLIGHT
Learning guides help individualize instruction and encourage students to take responsibility for their learning.

Programs of Study are a requirement of the 2006 Perkins Career and Technical Education Act. They emphasize development of CTE programs that include clear linkages between secondary and postsecondary CTE so students can make more successful transitions from one level to the next. Since 2007, RMCTC has established 56 articulation agreements. Twenty-nine of its 31 programs have articulation agreements. As of 2009, all but two of the CTE programs meet the Pennsylvania guidelines for all available programs of study.

SUPPORT STANDARDS ALIGNED SYSTEM WITH PEOPLE

Build a Culture of Targeted and Ongoing Professional Growth

RMCTC instructors participate in research-based professional development that directly addresses the CTC’s goals and the needs of instructors. At RMCTC, professional development reinforces the implementation of literacy and numeracy integration strategies as well as other improvement efforts. For example, approximately 12 instructors are formally trained in literacy strategies through the TCTW initiative. On-site professional development activities trained instructors on MAX Teaching strategies to engage students in higher-order thinking exercises and reading comprehension activities. The MAX Teaching model emphasizes reading comprehension and the retention of important information by engaging students in interactive learning situations. Academic and CTE instructors use the concrete tools of text and student writing, with instructor modeling of the literacy strategy and cooperative learning (students helping each other master the strategies),
to help their students achieve higher-order thinking about their subject matter.

In addition to the CTC-wide improvement goals, professional development opportunities also target the needs of individual instructors and their learning styles. The leadership team makes an effort to “find what works for every teacher.” To help with this effort, a newly created teacher evaluation system flags specific instructional areas in which individual or groups of instructors need to improve. Based on this information, staff can engage in professional development opportunities that are tailored to their individualized goals.

At RMCTC, the goal for professional development is to move instructors “from the training phase to the implementation phase where it becomes part of everyday life and classroom culture.” The administration expects instructors to use what they learn through their professional development. Instructors trained in literacy strategies apply their instructional knowledge in their classrooms and also share their knowledge with other staff members. After an initial in-service on MAX Teaching, instructors implemented at least one of the model strategies in their classroom before participating in a second follow-up session during which their needs were identified and addressed. At RMCTC, professional development supports instructors in implementing research-based instructional strategies to improve student achievement.

Center Teacher Evaluation Within a Culture of Professional Growth

In September 2009, the leadership team offered tenured instructors, with satisfactory ratings on their previous evaluation, the opportunity to participate in an alternative teacher evaluation pilot program. At the beginning of the school year, participating instructors and their supervisors independently completed an evaluation that assessed instructors on 45 features related to teaching and learning. After the evaluation results were compared against each other, the two parties met to discuss their ratings and to decide on a final rating for any of the features on which scores differed. Based on the final, agreed-upon ratings, the instructor and administrator then developed goals for the instructor to focus on during the school year. In addition to this individual analysis, the evaluation program also identified features on which a majority of instructors would benefit from additional support.

Instructors find the new evaluation program supports them in their goal to grow professionally. According to participants, it represents a significant improvement from the more traditional evaluation process in which a supervisor completes an assessment of an instructor based on a one-way observation with little instructor input. In contrast, the pilot program encourages instructors and their administrators to reflect and dialogue about the strengths, weaknesses and goals of the instructor. By starting the evaluation process in the beginning of the school year, instructors find it more useful and relevant to meeting their immediate professional needs. As one instructor described it, the process is more “proactive” compared to the “reactive” nature of the traditional process.
Be Intentional and Systemic About Change

Upon his appointment as director, Mr. Witmer recognized the need and potential to implement changes to policies and practices in order to improve student performance. Although the staff “proved very eager for direction and ready for some change,” Mr. Witmer and the leadership team realized that sustainable and effective change could only be achieved through a systemic and progressive process. In Mr. Witmer’s words, “I knew exactly where I wanted to go, but I had to temper everything” and create a pace of change that was workable for the CTC to adopt.

To temper and guide the change process at RMCTC, the leadership team embraced the following three key principles:

- Map it out.
- Challenge without overwhelming.
- Provide support.

Map It Out
To achieve long-term goals and to secure buy-in from key stakeholders, the administrative team needed to articulate a comprehensive and manageable plan for implementing new practices and policies. The team needed to map out exactly what it wanted the CTC to achieve and how it proposed to meet those expectations through a series of progressive steps and goals.

Challenge Without Overwhelming
As part of the growth process to support higher student achievement, the leadership team and faculty established goals for themselves professionally and for the students they serve. To accomplish these goals, they realized that the status-quo practices and policies would need to be reviewed and revamped. Mr. Witmer also realized that to “change a mindset and culture is hard” and that there exists a fine line between challenging staff and overwhelming them.

To minimize the sense of feeling overloaded among the staff, the leadership team created a broad vision for RMCTC but emphasized that the realization of this vision would occur through an ongoing and long-term process. The team respected the day-to-day workload of the instructors but still challenged them to grow professionally.

Provide Support
To implement sustainable changes in policies and instructional practices, Mr. Witmer adhered to a third principle—support his faculty and be patient. He realized that significant changes in policies and instructional approaches would not occur without a simultaneous provision of supportive services. The leadership team made relevant professional development opportunities available to instructors, engaged faculty in decision-making and sought staff feedback. The willingness to support staff members as they tackled challenges helped to secure their buy-in during the change process.

The Change Process
In order to begin the change process, Mr. Witmer spent his first months as administrative director during the 2006-2007 school year assigning priority to the most pressing areas of improvement. To do this, the leadership team analyzed data on student performance at RMCTC and on five other comparable CTCs. The team also studied the 2005
Jobs for the Future report developed for the Office of the Governor and the Pennsylvania Department of Education. The report includes best practices from CTCs and emphasizes the importance of integrating literacy and numeracy skills in CTE. The findings from the report helped shape the vision for workforce development in Pennsylvania. In January 2007, based on their analysis, the administration and faculty developed a mission, identified core beliefs and established a framework for a strategic planning process.

In May 2007, the CTC adopted a new strategic plan and developed goals, strategies and action plans to support its implementation. The five goals outlined in the plan were:

- **Student performance on NOCTI will increase by five percent per year.**
- **Students performing at the proficient or advanced level on the Pennsylvania System of School Assessment (PSSA) will increase by two percent per year.**
- **Students completing a program of study will increase by three percent per year.**
- **Student membership in Career and Technical Student Organizations (CTSO) will increase by three percent per year.**
- **Students attending postsecondary programs of study will increase by two percent per year.**

During the 2007-2008 school year, the leadership team and staff enacted three changes directly related to the strategic plan and meeting the five performance goals.

First, Mr. Witmer established three “Foundations for Improvement,” which outlined the following instructional expectations for his staff:

- Teach every day to all levels of students.
- Teach to the learning styles of students.
- Integrate a literacy activity into each lesson.

Secondly, the staff began the three-year curriculum development project to complete learning guides for each program and to align programs with the state expectations for Programs of Study.

Thirdly, the CTC began participating in the TCTW model. As part of this initiative, members of the RMCTC staff attended a site-development workshop, literacy training and a culture of data workshop.

RMCTC also joined the Technical Assistance Program (TAP), sponsored by the Bureau of CTE, in September 2008. A Pennsylvania Department of Education initiative, TAP provides technical assistance to help schools focus on improving student achievement. The program emphasizes student performance on the math and reading PSSA and on the NOCTI assessments. Through TAP, RMCTC established literacy and numeracy teams, a project-based learning team and a guidance services team. The CTC also began administering the NOCTI pre-test as a result of its involvement in TAP.

---

1 In 2008, two additional Foundations for Improvements were added which focus on integrating numeracy and daily writing activities.
By the 2009-2010 school year, RMCTC staff could focus their efforts on sustaining the changes implemented during the previous two school years and the gains in student performance.

**Make Program and Instructional Decisions Based on Data**

At RMCTC, data analysis drives key decisions about how to improve performance. In the opinion of Mr. Witmer, “You can’t improve what you don’t measure.” After completing the comparative analysis of five other CTCs in January 2007, RMCTC staff used this data to develop a strategic plan and the five improvement goals. The leadership team collected baseline data on each of these goals and collects follow-up data on an annual basis to assess the extent to which RMCTC achieves its goals. From this analysis, the leadership team establishes additional goals, strategies and action plans to continue improving student performance.

As part of TAP, RMCTC administers the NOCTI technical skills assessment pre-test. Assessment results indicate student readiness for the NOCTI exam and the performance areas in which students may need additional support.

Administrators and staff also use the results from a 2008 TCTW site visit to drive additional improvement decisions. During a September 2009 in-service staff-development activity, staff members assessed the level of performance on the TCTW quality indicators and established school-wide performance benchmarks for each indicator. Over the 2009-2010 school year, faculty members developed strategies to support meeting these benchmarks.

RMCTC administrators and faculty view data as a vital tool to identify and justify resources needed to improve student achievement and program quality. The leadership team used the listing of corrective actions and recommendations from a May 2007 Chapter 339 Review to convince the Joint School Committee and superintendents that RMCTC needed to implement changes to better support student achievement. (Chapter 339 identifies the CTE standards in Pennsylvania. As part of the on-site Chapter 339 Reviews instituted by the Bureau of CTE, RMCTC needed to demonstrate compliance on each of the standards and provide documentation of formal strategies and action plans to ensure all students were equipped with the academic and technical skills needed for career success.) As a result, the administration obtained approval to hire a supervisor of curriculum and professional development, a curriculum support specialist and a literacy coach. To help key stakeholders remain informed about the impact of their support, the leadership team makes an effort to communicate to them how RMCTC performs on the selected assessment measures and what the performance goals are for these measures.
Since the 2006-2007 school year, RMCTC continues to make progress in meeting its performance goals and improving student achievement.

In 2009, 52 percent of students received the Pennsylvania Skills Certificate (NOCTI) compared with 31 percent in 2007.

As of the 2008-2009 school year, the CTC met its strategic plan goal of increasing the percentage of students performing at the proficient or advanced level on the math PSSA by at least two percent from the previous year.

In reading, the percentage of students performing at the proficient or advanced level on the reading PSSA increased from approximately 31.2 percent in the 2006-2007 school year to approximately 34 percent in 2009, but the CTC failed to meet its goal of increasing the percentage by two percent each year.

In 2009, 41 percent of students completed a program of study compared to 25 percent in 2007. The CTC exceeded its goal of increasing this by three percentage points each year. For the sake of strategic planning, RMCTC defines completion as earning a job title (student has completed the tasks under a “job title category” and has the understanding and knowledge to work at a job that would be titled as such), scoring advanced on the NOCTI and graduating.

As of the 2008-2009 school year, student membership in CTSOs had reached 63 percent, compared to 51 percent in the 2006-2007 school year.

Based on student interviews, 46 percent of graduating students in 2009 are attending a full-time postsecondary program, compared to 32 percent of graduating students in 2007.

### RMCTC Testing Results*

#### 11th Grade PSSA Scores

<table>
<thead>
<tr>
<th>Year</th>
<th>Reading</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2007</td>
<td>32.0%</td>
<td>14.3%</td>
</tr>
<tr>
<td>2007-2008</td>
<td>26.0%</td>
<td>15.0%</td>
</tr>
<tr>
<td>2008-2009</td>
<td>33.7%</td>
<td>22.8%</td>
</tr>
</tbody>
</table>

#### 12th Grade NOCTI Scores

<table>
<thead>
<tr>
<th>Year</th>
<th>Advanced</th>
<th>Competent</th>
<th>Basic</th>
<th>Below Basic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>31.2%</td>
<td>12.2%</td>
<td>24.9%</td>
<td>31.7%</td>
</tr>
<tr>
<td>2008</td>
<td>42.4%</td>
<td>9.0%</td>
<td>18.6%</td>
<td>30.0%</td>
</tr>
<tr>
<td>2009</td>
<td>51.8%</td>
<td>15.7%</td>
<td>11.0%</td>
<td>21.5%</td>
</tr>
</tbody>
</table>

* Data provided by the Pennsylvania Bureau of CTE
In addition to meeting the five performance goals outlined in the strategic plan, the leadership team identified additional goals for the future:

• Complete learning guides for Level III tasks.
• Continue to “clean up” and enhance the existing curriculum.
• Build business and industry relationships.
• Add a sixth Foundation for School Improvement to address instructional strategies that will specifically support the academic and technical achievement of special needs students.

As administrators and staff at RMCTC embrace change and implement the processes for continuous improvement, the CTC is well poised to further improve student achievement and raise program quality.
THIS CASE STUDY WAS PREPARED BY HANS MEEDER AND MICHELLE HEBERT-GIFFEN OF MEEDER CONSULTING, LLC (WWW.MEEDERCONSULTING.COM), A FIRM SPECIALIZING IN LEADERSHIP AND ALIGNING EDUCATION SYSTEMS WITH WORKFORCE NEEDS, ON BEHALF OF THE PENNSYLVANIA BUREAU OF CAREER AND TECHNICAL EDUCATION.


INFORMATION ABOUT CTE IN PENNSYLVANIA CAN BE FOUND AT WWW.EDUCATION.STATE.PA.US/PORTAL/SERVER.PT/COMMUNITY/CAREER&_TECHNICAL_EDUCATION/7335/. LAST UPDATED NOVEMBER 18, 2010

Resources

Technical Centers That Work • www.sreb.org/page/1227/goalsconditions_for_continuous Improvement.html

TCTW Key Practices• www.sreb.org/page/1226/key_practices.html

MAX Teaching • www.maxteaching.com

Jobs for the Future

“Career and Technical Education in Pennsylvania: Opportunities for Commonwealth Policy”

The Office of the Governor and the Pennsylvania Department of Education retained Jobs for the Future to assess the state of CTE in Pennsylvania and to develop options to improve secondary CTE. To read the Jobs for the Future report, see www.jff.org/publications/education/career-and-technical-education-pennsylvania/186.

Pennsylvania Department of Education - Bureau of Career and Technical Education

www.education.state.pa.us/portal/server.pt/community/Career_&_Technical_Education/7335/

Contact Information

Reading Muhlenberg Career and Technology Center

GERALD WITMER, Administrative Director
gwitmer@rmctc.org

2615 Warren Road
Reading, PA 19604
610-921-7300
www.rmctc.org

The Pennsylvania Department of Education does not discriminate in its educational programs, activities or employment practices based on race, color, national origin, sex, sexual orientation, disability, age, religion, ancestry, union membership, or any other legally protected category. This policy is in accordance with state law, including the Pennsylvania Human Relations Act, and with federal law, including Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination in Employment Act of 1967 and the Americans with Disabilities Act of 1990.

The following persons have been designated to handle inquiries regarding the non-discrimination policies:

FOR INQUIRIES CONCERNING NON-DISCRIMINATION IN ALL OTHER PENNSYLVANIA DEPARTMENT OF EDUCATION PROGRAMS AND ACTIVITIES

Pennsylvania Department of Education
School Services Unit Director
333 Market Street, 5th Floor
Harrisburg, PA 17126-0333
Voice Telephone (717) 783-3750
Text Telephone (717) 783-8445
Fax (717) 783-6802
Pennsylvania provides a critical state investment of approximately $62 million in funding for CTE, including some funding for competitive equipment grants, adult training and about $5 million for high school reform efforts including teacher preparation.

Pennsylvania supports 85 career and technical centers, 141 school districts and 44 postsecondary institutions offering Career and Technical Education. These career and technical centers, colleges, universities and private postsecondary institutions offer over 2,100 secondary approved programs, over 1,000 postsecondary programs and over 500 adult programs.

For more information on Pennsylvania CTE and the Best Practices Initiative, visit the Pennsylvania Department of Education – Bureau of Career and Technical Education website at: www.pde.state.pa.us/portal/server.pt/community/Career__Technical_Education/7335/

Or contact:
Dr. Lee Burket, Director
Bureau of Career and Technical Education
Pennsylvania Department of Education
Telephone (717) 787-5530
Email lburket@state.pa.us

---

1 Pennsylvania Area Career and Technical Education Schools 2009 Report

To strengthen the impact of the state’s investment, the Pennsylvania Department of Education is implementing a multi-faceted improvement plan. This plan addresses critical issues facing career and technical education in Pennsylvania, including workforce development and academic preparation.