



**SREB**

*Technology Centers That Work*

**2011 TCTW Teacher Survey  
Report**

**James Rumsey Technical Institute  
West Virginia**

Site Code: 49801  
Number of Teachers: 21

Southern  
Regional  
Education  
Board

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Dear Colleagues,

Technology centers in the *Technology Centers That Work (TCTW)* network have committed themselves to preparing graduates in high-demand, high-wage, high-skill fields for postsecondary studies and employment. One distinguishing feature of this effort is the use of data linking student outcomes to center practices. This *TCTW* Teacher Survey provides important information on the experiences and perception of technology center teachers. Results should be used not only to obtain a sense of what is going on in the center, but also to set goals and document progress towards attaining them.

For a technology center to change, its leaders and teachers must first have a vision of how the center can be different. They need to determine where they are and where they want to be. To close the gap between “what is” and “what can be,” the faculty must become a learning community that constantly searches for ways to advance the performance of all students.

The *TCTW* Teacher Survey is designed to provide teachers an opportunity to share their insights into school and classroom practices and to indicate the professional development they have received and would like to receive in coming years. The *TCTW* Teacher Survey allows technology centers to explore the views and practices of their faculties and work as a team to find ways of improving student learning, performance and placement.

Center leaders and teachers can work together as a team to determine how school and instructional practices advance student performance. Center leaders will need to assemble their staff to review the results of this report, make plans to address the gaps revealed through the indicators and carry out those plans.

Gene Bottoms  
Senior Vice President  
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## Introduction

This 2011 *TCTW* Teacher Survey Report provides information on teachers' views about improving student performance, their expectations of students, the extent to which they use instructional practices that improve student performance, the integration of academic and career/technical content, and school leaders' support for changing practices. The teacher survey results are reported in sections based on themes from the *Technology Centers That Work (TCTW)* framework for school improvement.

At this site, **21** teachers participated in the survey, including **4** academic and **17** career/technical teachers. Among academic teachers, **1** responded that they primarily teach English/language arts, **1** teach mathematics, **0** teach life and physical science, and **1** teach history and social sciences. Career/technical teachers responded that they primarily teach in the following content areas (based on the 16 career clusters identified by the States' Career Cluster Initiative):

- 0** Agriculture, Food & Natural Resources
- 2** Architecture & Construction
- 2** Arts, Audio/Video Technology & Communications
- 0** Business, Management & Administration
- 0** Education & Training
- 0** Finance
- 0** Government & Public Administration
- 1** Health Science
- 1** Hospitality & Tourism
- 1** Human Services
- 0** Information Technology
- 2** Law, Public Safety, Corrections & Security
- 0** Manufacturing
- 0** Marketing
- 2** Science, Technology, Engineering & Mathematics
- 3** Transportation, Distribution & Logistics
- 3** Other Career/Technical Subject

## Technology Center Mission

There are multiple models for technology centers, with each serving students in different ways. However, one common element among these centers is the need for a clear mission. Without a clear sense of mission and a vision for how to fulfill the mission, technology centers will not be successful for students. Policies, practices and resources, especially time, must be aligned with the center’s mission **and** the curriculum and performance goals derived from the mission. Mission statements that are concrete, achievable and measurable can jump-start career centers on the path to success.

Every technology center that has achieved and sustained meaningful increases in student performance has a significant number of teachers and leaders who agree that their mission is to prepare all students with the academic and technical knowledge and skills necessary to be successful in postsecondary studies and in their chosen career field. A center can reach consensus on such a mission when someone focuses the faculty and community on the mission, identifies the gap between where the center is and where it should be, and engages the faculty and community in looking at the actions and policies needed to close the gap.

**Teachers were asked to indicate how important the following goals are in their center:**

<b>Preparing all students with the academic and technical knowledge and skills needed to enter college and be successful without needing remedial courses.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites<sup>1</sup></b>
Not at all important	0%	1%
Not too important	0	5
Important	38	38
Very important	62	57

<b>Helping all students master the academic content and skills needed to enter and advance in their chosen career field.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all important	0%	0%
Not too important	5	2
Important	14	30
Very important	81	68

<b>Helping students acquire the technical knowledge and skills needed to get a good job.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all important	0%	0%
Not too important	0	1
Important	14	18
Very important	86	81

<sup>1</sup> Data in the “All Sites” column represent all sites that completed the 2011 TCTW Teacher Survey.

<b>Preparing all students for the dual objective of employment and further study.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all important	0%	0%
Not too important	5	3
Important	24	34
Very important	71	63

<b>Ensuring all students earn a high school diploma.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all important	0%	2%
Not too important	0	3
Important	29	28
Very important	71	68

<b>Preparing all students to pass an exam that will give them a credential that is valued by employers.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all important	0%	1%
Not too important	0	4
Important	19	28
Very important	81	67

## **Improvement Actions**

If few teachers indicate the school has a mission to prepare all students for further learning without remediation or for a good job after graduation, then greater effort must be made to build consensus for such a mission. To constantly convey the importance of the mission to the faculty and to actively engage the community in improving student performance, leaders can take the following actions:

- Compile and share information with teachers and parents about the percentage of graduates who enter college and must take remedial courses.
- Invite employers to discuss with teachers and parents the qualifications of high school graduates applying for jobs, both in terms of academic skills and technical competence.
- Keep score on the percentage of students who take and successfully complete a college-preparatory academic core and share this information with the entire faculty.
- Interview graduates who have entered careers and postsecondary education about their technology center experiences and their perceptions of what the center could have done differently to better prepare them for the future.
- Revisit the center's mission annually and meet with feeder high schools to discuss ways of improving student performance and readiness for college and careers.

## High Expectations and Extra Help

Preparing all students for college and careers means raising expectations for what students must know and be able to do. It involves giving students challenging assignments that have personal meaning to them and consistently pushing students to do high-quality work. It means embedding academics in career/technical assignments and giving students the support they need to master both the academic and technical content. Teachers should agree that all students must meet common, high standards regardless of their post-high school plans and that they must continually redo work until it meets those standards. Center leaders and teachers must create a demanding environment that holds high academic and technical expectations for students and that is supportive of those who have difficulty meeting those expectations. This level of rigor, expectations and support sends the message to students that they matter and that what they do in school matters.

**Teachers were asked to indicate the extent to which they agree or disagree with the following statements about their center:**

<b>This center emphasizes academic standards (English/language arts, mathematics and science) to ensure students' success in postsecondary studies and careers.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Strongly disagree	0%	1%
Somewhat disagree	0	6
Somewhat agree	48	41
Strongly agree	52	52

<b>I am encouraged to give my students challenging assignments.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Strongly disagree	0%	1%
Somewhat disagree	0	3
Somewhat agree	19	29
Strongly agree	81	67

<b>This center emphasizes academic skills in reading, mathematics and science that are embedded in the problems, projects and tasks students are assigned.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Strongly disagree	0%	1%
Somewhat disagree	0	4
Somewhat agree	33	32
Strongly agree	67	63

**Teachers were asked to indicate the extent to which they agree or disagree with the following statement about the classes they teach:**

<b>Students' success or failure at the center is largely due to factors beyond me.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Strongly disagree	14%	9%
Somewhat disagree	24	27
Somewhat agree	29	41
Strongly agree	33	23

Teachers were asked the following questions:

<b>On average, approximately how much homework per week do you assign in your courses?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
I usually do not assign homework.	24%	32%
30 minutes or less	10	20
About 1 hour	38	18
Between 1 and 2 hours	19	15
Between 2 and 3 hours	5	9
4 hours or more	5	6

<b>How often do you require extra help for students who are not demonstrating the competencies expected for success in the workplace and postsecondary studies?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Never	5%	8%
A few times a year	24	31
About once a month	24	14
About once a week	29	21
A few times a week	14	22
Currently all of my students are performing at this level.	5	4

<b>How often do you encourage all students to take rigorous academic courses at their home high schools?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Never	14%	21%
A few times a year	38	39
About once a month	24	21
About once a week	5	13
A few times a week	19	7

<b>Do you encourage all students to take a mathematics course during their senior year?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Yes	86%	76%
No	14	24

<b>Do you encourage all students to take a science course during their senior year?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Yes	86%	70%
No	14	30

## **Improvement Actions**

If few teachers responded at the desired level for any item above, it is likely that the center is not sending a consistent message that all students must meet high expectations. Actions the center can take include:

- aligning assignments and assessments to college- and career-readiness standards.
- explicitly focusing on the academic content embedded in career/technical projects and materials.
- providing course syllabi that contain guidelines for quality work and examples of work that meets high standards to students and parents.
- expecting students to do at least one hour of meaningful homework each week, then leading teachers to:
  - help all students understand that learning and increased performance come from effort in class and doing quality homework outside of class.
  - make homework more meaningful and hold students accountable for their work so that homework effectively expands learning.
- requiring students not meeting college- and career-readiness standards to receive extra help at least weekly.

Teachers and center leaders agree to:

- require students to redo work to meet college- and career-readiness standards developed for each course and to attend extra help sessions until standards are met.
- constantly remind students that improved performance comes from effort in class and through doing meaningful homework outside of class.
- identify strategies to influence the academic courses the students are taking at their home high schools.

## Guiding and Supporting Students

All students and their families should feel connected to the technology center and its purpose in the students' education if they are to be ready to succeed in postsecondary studies and a career. To establish the connection, each student needs an adult adviser who provides easier access to information and helps students select courses and other opportunities at the center. Adult advisers should help students and parents set goals, choose programs of study and review and revise educational plans and goals. They should also keep students and their parents updated with information regarding students' readiness for postsecondary studies and/or careers.

**Teachers were asked the following questions:**

<b>Are you part of a structured guidance/advisory program in your center?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Yes	86%	45%
No	14	55

<b>Do you assist students and their parents in developing a program of study at their home high school that includes preparing for postsecondary opportunities?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Yes	33%	28%
No	67	72

<b>Do you have a core group of students whom you advise?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Yes	62%	36%
No	38	64

**Teachers who indicated that they have a core group of students whom they advise were asked how often they do the following:**

<b>Meet with your group of students.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	2%
Once or twice overall	8	8
About once a year	0	2
About once a semester	8	19
More than once a semester	85	69

<b>Inform parents and students about the student's readiness to do post-high school studies.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	8%	15%
Once or twice overall	0	13
About once a year	15	16
About once a semester	46	33
More than once a semester	31	22

<b>Inform parents and students about the student's readiness to pass an employer certification exam.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	15%	21%
Once or twice overall	8	15
About once a year	23	17
About once a semester	23	25
More than once a semester	31	23

<b>Work with parents and students on ways to address gaps in achievement.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	8%	14%
Once or twice overall	8	16
About once a year	15	13
About once a semester	31	26
More than once a semester	38	31

<b>Work with a career/technical student organization.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	13%
Once or twice overall	0	8
About once a year	0	9
About once a semester	23	16
More than once a semester	77	55

## **Improvement Actions**

If few teachers are involved in helping students set goals and develop a program of study, there is more the center can do to prepare students for college and careers:

- Work with sending high schools to help students develop a cohesive program of study that incorporates both college-preparatory academics and rigorous career/technical courses.
- Determine the gaps between students' course-taking patterns and their goals beyond high school and share the information with students and their parents. This should give students the reality checks they need to take courses consistent with their goals for further learning and careers.
- Schedule regular meetings for teachers/mentors and their students and parents.
- Encourage all students to take challenging academic courses that supplement and improve their understanding of technical content.
- Provide information about further educational and employment opportunities and assist students in setting goals for beyond high school.

## Integrating Academic and Career/Technical Content

Success in the modern workplace is dependent upon students' ability to read and interpret information, use mathematics in context, and understand scientific principles underlying major technologies and materials. Career/technical content and skills become more meaningful when underlying academic skills are emphasized and enhanced. Focusing on these academic skills will provide students with a solid foundation upon which to build technical knowledge and skills. Their understanding will be more comprehensive, making them more competitive in a globalizing workforce.

Successfully integrating academic and career/technical content means getting students in career/technical classes to complete assignments that require them to use high-level academic content in an applied setting. This requires that all teachers be committed to teaching all students to the same high academic and technical standards.

**Career/technical teachers were asked the following question:**

<b>Do you have a staff member at your center who assists you in developing lesson plans to teach the reading, mathematics and/or science content embedded in the career/technical assignments you give students?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Yes	50%	63%
No	50	37

**Teachers were asked the following questions:**

<b>How often do you give students assignments designed to address the reading, mathematics and/or science content embedded in career/technical assignments?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Never	0%	3%
Once a year	0	1
Once or twice a semester	10	9
Monthly	33	22
Weekly	48	43
Several times a week	10	23

<b>Has your center developed a method for assisting you in planning lessons, assignments and assessments that help students master the academic content embedded in the career/technical assignments, projects and problems assigned to students?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Yes	70%	67%
No	30	33

## Integrating Mathematics Skills and Content

Career/technical teachers improve student performance by getting students to understand and learn how to reason with mathematics in the context of their career field. Mathematics knowledge and skills should then be embedded in career/technical courses to reinforce the integration of academic and technical content. Students will have higher academic and technical understanding and performance when they understand how both are used in their career field.

Mathematics processes that can be embedded in career/technical content include: problem solving (analyze problems and develop solution strategies); reading and communication (read problems, interpret them and understand what is being asked); estimation (recognize correct answers, check for reasonableness and identify mistakes to revise work); and logical reasoning (inductive and deductive reasoning).

**Teachers were asked how often they require students in their classes to do the following regarding mathematics:**

<b>Read mathematics-related materials and demonstrate how it relates to career/technical content.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	10%	11%
Once a year	0	5
Once or twice a semester	14	19
Monthly	33	28
Weekly	43	38

<b>Use a graphing calculator to complete mathematics assignments.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	57%	63%
Once a year	5	5
Once or twice a semester	14	10
Monthly	10	11
Weekly	14	12

<b>Use a computer to complete mathematics assignments.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	29%	38%
Once a year	0	5
Once or twice a semester	24	17
Monthly	33	19
Weekly	14	20

<b>Use mathematics to solve a real-world problem.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	5%	7%
Once a year	0	3
Once or twice a semester	10	14
Monthly	14	23
Weekly	71	54

<b>Work with other students on a challenging mathematics assignment related to a career/technical project.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	14%	23%
Once a year	0	7
Once or twice a semester	24	19
Monthly	38	24
Weekly	24	26

<b>Create a written notebook that defines mathematics terms in the way they are used in a career field.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	57%	62%
Once a year	0	6
Once or twice a semester	24	12
Monthly	14	10
Weekly	5	10

<b>Orally defend a process that they used to solve a mathematics problem related to a career/technical assignment.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	29%	39%
Once a year	0	7
Once or twice a semester	24	17
Monthly	33	18
Weekly	14	19

<b>Use mathematics to complete assignments.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	5%	6%
Once a year	0	3
Once or twice a semester	19	16
Monthly	24	24
Weekly	52	51

## Improvement Actions

The center probably does not emphasize the mathematics skills embedded in career/technical content if few teachers are using practices that require students to read, write and talk with each other about mathematics; use mathematics to solve real-world problems; and work together to solve challenging problems. To strengthen mathematics teaching, the following eight-step process can be used to develop authentic anchor project units.

- Identify and describe a major project that is rich with embedded mathematics content that career/technical faculty will have students complete during each 12 weeks of school.
- Identify the embedded mathematics and technical standard(s) and use of technology tools that can be taught through the authentic integrated project units. This will involve taking the mathematics standards and being deliberate about identifying the specific knowledge and skills students are expected to apply and understand.
- Identify the literacy study skills and habits of success that students will be expected to apply in advancing their mastery of academic and technical content and skills. This will involve the identification of materials to be read, records to be kept, reports to be written, quality of work expected, behavior expectations for individual and for teamwork, and specifications of other key habits of success important to the 21<sup>st</sup>-century workplace.
- Develop a summative assessment that incorporates mathematics and technical content questions and the use of technology questions at the end of the unit. Describe re-teaching strategies for those students who fail to demonstrate mastery and indicate the benchmark level that would be acceptable for demonstrating mastery at the proficient level.
- Develop a process to pre-assess students' current knowledge and skills as they pertain to mathematics, technical content, technology and tools embedded in the unit. Determine how students will be pre-assessed for current level of knowledge and skills in each of these four domains — mathematics, technical content, the use of technology, and other skills and habits essential to success.
- Decide how career/technical faculty will engage students with mathematics and technical content and the use of technology and tools embedded in the authentic anchor project unit. Identify: 1) a series of teacher-directed instructional activities; 2) student assignments aimed at helping students understand the mathematics and technical content; and 3) ways technology will be used to enhance learning. Part of this planning will involve bridging the gap between the language of the pathway field as it relates to the language of mathematics in order to help students understand the language of the workplace and of formal mathematics and to see how these are connected without abandoning either.
- Decide how mathematics faculty will engage students with mathematics and technical content and the use of technology and tools embedded in the authentic anchor project unit. Develop related contextual mathematics assignments using the embedded mathematics concept in the unit. This work will continue to bridge academic language and the language of the career/technical pathway.
- Describe how students will demonstrate their understanding of mathematics and technical knowledge and skills by completing the project and assignments designed to provide additional practice.

## Integrating Science Skills and Content

Many career/technical fields are based on science concepts and principles. A deep understanding of physics, chemistry and biology provides a solid foundation upon which to build applied career/technical concepts and skills. Focusing on the science embedded in career/technical content means addressing not only scientific principles, but also scientific processes. Science provides a rigorous method of analyzing problems and testing solutions.

Rigorous, laboratory-based science strategies can be incorporated into career/technical classrooms. Students should participate in classroom and field-based research studies requiring them to collect and analyze data, present and defend data, and apply new findings to their career field. Students should use literacy skills to communicate science information and encourage scientific interest as it related to career/technical content. Students should also use the Internet and common tools such as word processing, PowerPoint and spreadsheets. Scientific equipment such as hand-held computers, lab-based probes, balances and other equipment should be used to integrate mathematics and science into career/technical content.

**Teachers were asked how often they require students in their classes to do the following regarding science:**

<b>Read science-related materials and demonstrate how it relates to career/technical content.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	19%	24%
Once a year	5	7
Once or twice a semester	29	19
Monthly	43	25
Weekly	5	24

<b>Complete a science research project in a career/technical field that includes doing an experiment and preparing a written report of the results.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	45%	49%
Once a year	20	14
Once or twice a semester	20	20
Monthly	15	11
Weekly	0	7

<b>Use scientific inquiry methods to solve problems related to their career/technical field of study or work setting.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	5%	22%
Once a year	14	7
Once or twice a semester	14	17
Monthly	48	22
Weekly	19	31

## **Improvement Actions**

If few teachers are using the practices listed above, the center is not integrating science content and skills into career/technical courses. Organize a study team of science, mathematics and career/technical teachers to determine how to make science instruction more fully based in a real-world, career context by taking the following actions:

- Develop assignments that require students to read, write and talk with each other about interesting scientific topics that relate to their work in career/technical courses.
- Give students assignments that require them to address problems found in the community or workplace and to complete a major research project.
- Revise course syllabi to include: challenging assignments that require students to use graphing calculators and computers; joint science assignments developed with career/technical teachers; and at least one graded lab assignment each month that includes a written summary.

## Integrating Reading and English/Language Arts Skills and Content

Reading and writing skills are critical for success in any profession. All students need experiences in reading, writing, research, using technology, and speaking and listening, specifically as these items relate to their career field. There are several literacy readiness indicators important to success in career/technical fields:

- Develop vocabulary appropriate to reading, writing and speaking proficiency.
- Summarize, paraphrase and categorize information.
- Make inferences and predictions.
- Connect what is read to personal experience and the world beyond the classroom.
- Compose writing that conveys a clear main point with logical support.
- Edit and revise writing for the strongest effect.
- Use English language structure and grammar appropriately to communicate effectively.
- Use research skills to locate, gather, evaluate and organize information for different purposes.

**Teachers were asked how often they require students in their classes to do the following regarding English/language arts:**

<b>Read an assigned book or technical article outside of class and demonstrate understanding of the significance of the main ideas.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	26%
Once a year	10	9
Once or twice a semester	48	29
Monthly	24	21
Weekly	19	15

<b>Select entries from recommended reading lists for out-of-school reading.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	47%	54%
Once a year	5	9
Once or twice a semester	21	18
Monthly	21	12
Weekly	5	7

<b>Read several pieces on the same topic in a career field and discuss the different points of view.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	31%
Once a year	10	13
Once or twice a semester	33	24
Monthly	48	19
Weekly	10	13

<b>Write a major research paper on a subject within their career/technical field.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	19%	38%
Once a year	43	29
Once or twice a semester	33	24
Monthly	5	5
Weekly	0	3

**Teachers were asked how often they require students in their classes to do the following:**

<b>Read and interpret technical books and manuals in carrying out assignments.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	5%	13%
Once a year	0	4
Once or twice a semester	14	14
Monthly	38	22
Weekly	43	47

<b>Write and prepare business or technical documents and service reports.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	5%	31%
Once a year	5	10
Once or twice a semester	52	20
Monthly	29	21
Weekly	10	19

<b>Meet academic content standards in writing assignments set by the English/language arts department.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	20%	28%
Once a year	0	6
Once or twice a semester	25	17
Monthly	45	21
Weekly	10	27

## **Improvement Actions**

If few teachers are embedding literacy strategies in career/technical assignments, have teachers work together to create assignments that require students to:

- read technical and career-based books and articles and demonstrate understanding of the vocabulary.
- summarize, paraphrase and categorize information.
- draw inference from text(s) to make predictions.
- create written documents that solve problems and provide reasoning and support.
- use research skills to locate and collect information about a topic, organize and evaluate information, and make a logical conclusion based on collected evidence.

## Teaching Challenging Career/Technical Content

Challenging and authentic career/technical projects and assignments provide students with a deeper understanding of content, provide a link between school and the real world, and prepare students for the level of work that will be expected of them in college and in careers. Among all sites, many teachers are requiring students to regularly solve problems they are likely to encounter in the real world and work on extended, major projects. However, fewer teachers are giving assignments that focus on the background knowledge, skills and tools needed to be successful on these assignments. Few teachers regularly require students to develop and analyze tables, charts and graphs; use word processing software; or design, implement and prepare a written report of a research investigation. Furthermore, few teachers are requiring students to engage in 21st-century skills to deepen understanding of content, such as working in cooperative groups. Students should not just be required to perform routine procedures. They should be engaged in assignments that deepen their understanding of technical material.

**Teachers were asked how often they require students in their classes to do the following:**

<b>Meet performance standards that relate to national industry standards developed by a national committee of teachers and employers.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	16%	18%
Once a year	5	8
Once or twice a semester	11	11
Monthly	16	18
Weekly	53	45

<b>Use background and prior knowledge at the beginning of lessons to read new technical content.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	3%
Once a year	0	1
Once or twice a semester	10	9
Monthly	33	20
Weekly	57	66

<b>Solve problems students are likely to encounter in the real world.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	1%
Once a year	0	0
Once or twice a semester	0	3
Monthly	14	15
Weekly	86	81

<b>Develop a strategy for solving a problem that is occurring or could occur in a work setting.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	3%
Once a year	0	2
Once or twice a semester	5	10
Monthly	24	27
Weekly	71	58

<b>Complete assignment using the vocabulary associated with the subject area being taught.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	2%
Once a year	0	1
Once or twice a semester	0	6
Monthly	0	23
Weekly	100	68

<b>Use word processing to complete an assignment or project.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	5%	10%
Once a year	0	5
Once or twice a semester	19	15
Monthly	52	29
Weekly	24	42

<b>Develop and analyze tables, charts and graphs in schoolwork.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	17%
Once a year	14	10
Once or twice a semester	24	25
Monthly	33	27
Weekly	29	22

<b>Work on an extended, major project that lasts one week or more.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	6%
Once a year	10	9
Once or twice a semester	33	32
Monthly	52	31
Weekly	5	22

<b>Design a research investigation, implement it and prepare a written report that summarizes and interprets findings.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	5%	26%
Once a year	20	19
Once or twice a semester	45	29
Monthly	30	19
Weekly	0	8

<b>Work in cooperative groups or teams to deepen understanding of content.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	3%
Once a year	10	3
Once or twice a semester	5	16
Monthly	29	32
Weekly	57	46

## **Improvement Actions**

If few teachers require students to complete challenging career/technical assignments, consider the following actions to deepen students' understanding of technical content and skills:

- Align center and classroom performance standards to state and national industry standards developed by a national committee of teachers and employers.
- Develop assignments that focus on the background knowledge and skills students must have to understand the new technical material being learned.
- Assign authentic projects that require students to apply concepts and content learned to real-world problems they may encounter in their chosen career path.
- Require students to apply the academic skills they have learned in their career/technical field to complete assignments.
- Require students to use and understand tools such as word processing, spreadsheet software, PowerPoint, and career-specific software, such as CAD.
- Organize faculty study groups on community-based learning, interdisciplinary units, student-designed research, integration of academic and career studies, and more thoughtful questioning and discussion techniques.
- Require students to pass a three-part final exam in their career area that includes a comprehensive written exam aligned with national certification standards that measure students' ability to read and interpret technical materials, apply major mathematics concepts to enter and advance in the field and understand major technical concepts; an oral exam; and an open-ended project.

## Using Assessment Techniques to Improve Learning

Teaching challenging content depends on teachers using assessment techniques that require students to demonstrate deep understanding of career/technical content. This means grading students on how well they can collect, understand and synthesize information; explain orally and in writing what they have done; and discuss and defend their conclusions.

**Teachers were asked how often they use an assessment technique to determine how well a student can do the following:**

<b>Write a report and explain verbally what the student did and why.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	14%	24%
Once a year	5	11
Once or twice a semester	57	29
Once or twice a month	14	21
Daily or weekly	10	14

<b>Solve problems and give a clear rationale for the method used to solve them.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	12%
Once a year	0	5
Once or twice a semester	43	19
Once or twice a month	19	26
Daily or weekly	38	38

<b>Collect, organize, synthesize and use information to complete a project.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	8%
Once a year	10	7
Once or twice a semester	19	22
Once or twice a month	43	27
Daily or weekly	29	36

<b>Demonstrate critical knowledge about technical and related academic competencies used to complete an assignment.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	8%
Once a year	0	4
Once or twice a semester	19	15
Once or twice a month	24	26
Daily or weekly	57	48

Various forms of evaluation serve different purposes and should be used together to provide a comprehensive, well-rounded overall assessment of student learning. Among teachers at all sites, the four most common forms of assessment include participation, projects or laboratory exercises, objective tests, and observations. It is important that teachers use a combination of assessment techniques to ensure that students know, understand and can apply content and skills learned.

**Teachers were asked if they include the following forms of assessment in students' course grades. Percentages represent "yes" responses.**

	<b>Your Site</b>	<b>All Sites</b>
Attendance	67%	79%
Participation in classroom or laboratory activities	100	95
Projects or practical/laboratory exercises	100	96
Portfolio of student work	62	68
Homework assignments	95	73
Teacher-made objective tests (multiple choice, true-false)	100	94
Teacher-made open-ended tests	95	76
End-of-course exam in their content area that is used center-wide	80	63
Standardized tests produced outside the center	67	66

## **Improvement Actions**

If few teachers are using a combination of assessment techniques designed to thoroughly evaluate student learning, consider taking the following actions:

- Develop a comprehensive assessment plan that encourages teachers to utilize a variety of assessment techniques to evaluate students' comprehension of content and their ability to apply that knowledge.
- Give exams that require students to think at higher levels by developing their own responses to short-answer and essay questions.
- Give assessments that evaluate students' abilities to answer questions both orally and in writing.
- Include practical assessments such as laboratory exercises, semester-long projects, student portfolios, and/or senior projects.
- Reach agreement on exam standards, explaining them to students and parents and helping them understand why students must be better prepared for further learning and careers after high school.
- Have career/technical teachers assess students for mastery of literacy and mathematics content and skills that were embedded in the activities they completed.

## Helping Students Make Successful Transitions

Many teachers agree that students’ success or failure at their center is largely due to factors beyond them. This may be due, in part, to the lack of communication between technical centers and feeder middle grades and high schools. These institutions should work together to form a cohesive education for students. Helping students make successful transitions from middle grades and high schools to the technology center and from the technology center to the workplace or further learning is critical to students’ success. A key component is effectively communicating to students and parents what it takes to be ready to attend a technology center.

Research indicates that each student transition, unless well planned and implemented, can result in an achievement lag. With each transition to a new building, families seem to become less connected to schools and centers. To ease these transitions, teachers and administrators must work together to prepare and inform families about expectations, policies and practices and to make sure that expectations, content and standards are aligned with sending and receiving schools. Transition activities can be a useful tool for making sure students are on track with their educational plans and that parents have the information they need to help students stay with their plans.

### Transitions from Middle Grades and High Schools to Technology Centers

Helping students make a successful transition to the technology center is important in ensuring students are completing a well-rounded academic and technical curriculum that will prepare them for a specific postsecondary goal. The following indicators suggest whether or not center teachers are prepared to help students make this transition successfully.

**Teachers were asked the following questions:**

<b>How familiar are you with the content and specific goals of the courses taught in the middle grades and high schools that send students to this center?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all familiar	35%	30%
Somewhat familiar	50	56
Very familiar	15	14

<b>How often do you meet with teachers from feeder middle grades or high schools to discuss expectations, content knowledge and performance standards for students entering your center?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Never	57%	74%
Annually	38	18
Every semester	0	5
Monthly	5	2

## **Improvement Actions**

If few teachers report being engaged in activities to improve student transitions into the center, consider the following actions:

- Help middle grades and high school students, parents, teachers and school leaders understand the career/technical opportunities available to them at the center, as well as what it takes to be ready to attend the center.
- Meet with teachers at middle grades and high schools to discuss the technology center's expectations for incoming students.
- Have a technology center representative meet with each entering student and his/her parents to discuss the student's readiness to begin challenging career/technical studies and to present an extra help plan for those students who are not prepared.
- Provide more personalized instruction, guidance and extra-help services to entering students to help them make the transition and select the best teachers to work with them.
- Assign each student an adult mentor to meet regularly, review goals and plans for achieving them and discuss any issues the student may be facing at the technology center.
- Help incoming students set an outcome goal beyond high school and define a program of study that will help them reach that goal.

## Transitions from the Technology Center to College and Careers

Few teachers think more than 80 percent of their seniors have the skills to do well at a four-year or community college and not many more think more than 60 percent of seniors have the skills to do well. Many students leave technology centers only to discover that they cannot pass employer exams for good jobs or that they must take remedial courses in college. Technology centers must meet with employers and postsecondary instructors to understand what their graduates need to know and be able to do to be successful. They must make changes in the technology center and work with partnering high schools to ensure students are getting the knowledge and skills they need to be successful.

Schools should make the senior year count. Students who are not prepared for college and careers should be provided with extra help and transitional courses to get them prepared. Transitional courses should be required for students who do not meet standards on high school graduation tests or on community college placement exams. These courses may supplement to students' regular courses. Students who are prepared for college and careers should continue to be challenged. All career/technical students should take rigorous mathematics and science courses during the senior year. Those students not continuing on to further study should be enrolled in courses that emphasize passing employer exams and achieving national certification.

**Teachers were asked the following questions:**

<b>How often do you meet with employers and postsecondary faculty to discuss expectations, content knowledge and performance standards for students graduating from your center?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Never	5%	15%
Annually	38	33
Every semester	43	40
Monthly	14	11

<b>Thinking of your current seniors, about what percentage do you think have the skills to do well at a four-year or community college?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Less than 20%	48%	20%
20 to 40%	14	24
41 to 60%	0	23
61 to 80%	24	19
81% or more	14	15

<b>Thinking of your current seniors, about what percentage would you feel comfortable recommending as highly competent to an employer in their area of specialization?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Less than 20%	14%	18%
20 to 40%	29	24
41 to 60%	19	23
61 to 80%	19	20
81% or more	19	15

## **Improvement Actions**

If few teachers meet with employers and postsecondary instructors to learn how to better prepare students for college and careers, consider taking the following actions:

- Work regularly with the colleges that enroll the highest percentages of their students to find out what they expect students to know and be able to do.
- Enroll seniors not meeting college- and career-readiness standards in transitional English/language arts and mathematics courses designed to get them to standards.
- If seniors are not planning to pursue further study, enroll them in career/technical courses that lead to employer certification or provide an edge in the workplace.
- Find out what the major employers who hire graduates expect students to know and be able to do in reading, English/language arts and mathematics to pass employer exams.
  - Require students to use more communications and mathematics skills to complete career/technical assignments in and out of class.
- Encourage all students to take three rigorous academic courses in the senior year, including mathematics and science.

## Strong Leadership

Among teachers at all sites, few perceive their center leadership is engaging them in continuous school improvement. High-performing and effective technology centers are led by strong leaders who guide the faculty in improvement efforts. They work together with faculty to identify needs and provide solutions. They rally the entire staff around a strong mission to prepare all students for college and careers.

**Teachers were asked how often their director does the following:**

<b>Emphasize the importance of guiding students into challenging academic courses at their home school.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Never	14%	22%
Annually	5	21
Every semester	29	25
Monthly	52	33

<b>Use data continuously to evaluate the center's effectiveness in preparing students for further study and careers.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Never	0%	6%
Annually	10	25
Every semester	43	28
Monthly	48	41

<b>Consult with staff members before making decisions that affect them.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Never	14%	23%
Annually	14	17
Every semester	33	20
Monthly	38	40

<b>Encourage you to experiment with instructional strategies.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Never	0%	10%
Annually	5	16
Every semester	30	24
Monthly	65	50

<b>Organize study team meetings to address how to implement the individual components of the center's improvement plan.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Never	5%	17%
Annually	15	22
Every semester	35	24
Monthly	45	36

<b>Involve staff in school improvement decisions and activities.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Never	10%	15%
Annually	0	21
Every semester	43	21
Monthly	48	43

High-performing and effective technology centers also have motivated faculty who work together to increase student expectations and the rigor and quality of assignments. They work together to review students' work and align assignments to college- and career-readiness standards.

**Teachers were asked the following questions:**

<b>How often do you meet as a member of a team of teachers to plan joint instructional activities and to take collective responsibility for student learning?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
We have never had such a meeting in our center.	5%	13%
I have not attended any such meeting in the past year.	10	12
We have met once in the past year.	14	10
We have met a few times in the past year.	38	32
We meet monthly.	14	19
We meet weekly.	19	14

<b>How often do you meet with a group of teachers to examine students' work to determine if it meets national industry and academic standards in your content area?</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
We have never had such a meeting in our center.	5%	28%
I have not attended any such meeting in the past year.	24	20
We have met once in the past year.	5	13
We have met a few times in the past year.	48	23
We meet monthly.	19	9
We meet weekly.	0	6

**How often do you meet with other teachers in your department or center to align assignments and agree upon what student work looks like below, at or above a college- and career-ready level?**

<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
We have never had such a meeting in our center.	19%	27%
I have not attended any such meeting in the past year.	24	17
We have met once in the past year.	10	13
We have met a few times in the past year.	19	21
We meet monthly.	10	11
We meet weekly.	19	12

## **Improvement Actions**

There are several actions technology center leaders can take if the faculty does not perceive an emphasis on leadership for continuous improvement:

- Emphasize the importance of integrating academic content into career/technical classes.
- Emphasize the importance of guiding students into a rigorous program of study.
- Encourage teachers to experiment with instructional strategies and hold high expectations for all students.
- Encourage teachers to meet in teams to discuss student expectations and align assignments to readiness standards.

## Professional Development

To teach in ways that improve student performance, teachers must regularly seek new ideas, evaluate what they do and revise their lesson plans to get more students to meet challenging standards. Professional development helps teachers learn and master new research-based instructional practices, reflect on what they have learned and share responsibility in applying new knowledge as they plan joint assignments that require students to use academic content and skills in completing real-world, hands-on projects.

**Teachers were asked to indicate if they need staff development in the following areas to improve their efforts to teach higher-level content to their students. Percentages represent “yes” responses.**

	Your Site	All Sites
Adapting teaching methods to the learning styles of different students	43%	53%
Establishing a classroom environment that actively involves students in the learning process	21	45
Doing collaborative planning with other teachers	29	54
Raising expectations for student achievement	36	52
Aligning assignments to college- and career-ready standards	47	52
Helping at-risk students master complex content	50	65
Using interdisciplinary themes or units	36	46
Implementing a grading policy that requires students to redo work not meeting standards	33	46
Using reading and writing for learning strategies across the curriculum	36	49
Using real-world problems in instruction and assignments	21	45
Using cooperative learning in instruction and assignments	21	46
Using data to improve instruction and learning	43	49
Developing grading scales and guidelines	33	44
Using project-based learning in instruction and assignments	14	46
Using performance assessments (e.g., presentations, writing, projects, portfolios)	36	47
Having students design and conduct research investigations	43	44
Using applied learning strategies to teach higher-level content	29	53
Using technology in instruction	29	59
Providing effective extra help	33	52
Working with students as a mentor or adviser	21	46

**Teachers were asked to indicate if they need staff development in the following areas to get students to use academic content and skills to complete challenging assignments. Percentages represent “yes” responses.**

	Your Site	All Sites
Understanding mathematical concepts underlying their career/technical field	42%	42%
Embedding mathematics in career/technical instruction	37	44
Applying scientific methods of inquiry in career/technical instruction	37	46
Embedding literacy (reading, writing, communication) in career/technical instruction	32	46
Designing course syllabi for career/technical courses	21	40
Using authentic problems and projects in career/technical instruction	16	43
Planning joint assignments with academic teachers	37	50

Professional development should provide follow-up activities to help teachers fine-tune the new practices. They should be expected to learn from activities and implement new strategies in their classrooms.

**Teachers were asked to what extent the following statements reflect their own staff development experiences in the past 12 months:**

<b>Staff development experiences have resulted in holding my students to the current national academic and industry standards developed for my field.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	5%	7%
Very little	0	14
To some extent	62	49
A great deal	33	30

<b>Staff development programs are sustained over time, with ample follow-up activities that include an expert observing my teaching and giving me ideas for refining instruction to get higher achievement from my students.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	5%	13%
Very little	19	20
To some extent	62	44
A great deal	14	22

<b>There are incentives that encourage me to participate in staff development (release time, substitute pay, certificate renewal credit, stipends).</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	5%	22%
Very little	24	21
To some extent	33	33
A great deal	38	25

<b>I am expected to reflect on what I learn in staff development programs, apply it in the classroom and share it with my colleagues.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Not at all	0%	6%
Very little	10	12
To some extent	38	43
A great deal	52	39

## **Improvement Actions**

If few teachers are engaged in professional development and subsequent follow-up activities, it is likely that the current professional development programs are not helping teachers determine how to change instruction, expectations of students and evaluation of student work to improve student performance. The following steps will help teachers focus on continuous improvement:

- Provide staff development aligned to the school's improvement plan. As part of this development, there should be a plan to implement learned strategies in the classroom, to assist teachers in implementation of strategies and to allow teachers to work together.
- Meet with teachers to determine what types of professional development are needed. Work with them to provide innovate formats that will assist them in increasing the rigor of their courses and the achievement of all students.
- Participate in professional development opportunities at the *HSTW* Staff Development Conference and national workshops throughout the year.

## Teachers' Perceptions on Continuous School Improvement

It is important that teachers perceive that their center is engaging in continuous improvement. It is their belief in these improvement methods that will make improvement efforts successful. High-performing technology centers are never satisfied. They constantly evaluate themselves and seek ways to improve students' readiness for college and careers. They have clear goals and priorities and focus on teaching all students to the same high standards and engaging students in challenging, authentic assignments.

**Teachers were asked to indicate the extent to which they agree or disagree with each of the following statements about their center:**

<b>Goals and priorities for this center are clear.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Strongly disagree	0%	3%
Somewhat disagree	5	7
Somewhat agree	33	37
Strongly agree	62	53

<b>Teachers in this center maintain a demanding yet supportive environment that pushes students to do their best.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Strongly disagree	0%	1%
Somewhat disagree	0	4
Somewhat agree	43	37
Strongly agree	57	58

**Teachers were asked to indicate how often their director does the following:**

<b>Stress to you that you should teach all students to the same high standards.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Never	5%	6%
Annually	0	21
Every semester	33	25
Monthly	62	48

**Teachers were asked to indicate the extent to which they agree or disagree with each of the following statements about their center:**

<b>Teachers in this center are continually learning and seeking new ideas on how to improve student achievement.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Strongly disagree	0%	2%
Somewhat disagree	0	5
Somewhat agree	24	37
Strongly agree	76	57

<b>The teachers and center director work as a team to improve student achievement in this center.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Strongly disagree	5%	8%
Somewhat disagree	0	11
Somewhat agree	24	36
Strongly agree	71	46

<b>Teachers use data continuously to evaluate the center's curriculum, instruction and student success.</b>		
<b>Response</b>	<b>Your Site</b>	<b>All Sites</b>
Strongly disagree	5%	5%
Somewhat disagree	10	12
Somewhat agree	29	41
Strongly agree	57	42

**What is the school's emphasis on teachers' perception on continuous improvement?**

	<b>Your Site</b>	<b>All Sites</b>
Intensive (4 to 6 of the above items)	67%	41%
Moderate (2 to 3 of the above items)	24	25
Low (0 to 1 of the above items)	10	28
Incomplete Data <sup>1</sup>	0	6

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<sup>1</sup> Teachers did not respond to one or more of the components of the index.

## **Improvement Actions**

If few teachers perceive their center to be engaged in continuous school improvement, center leaders can consider taking the following actions:

- Make professional development an ongoing process related to improvement goals, rather than a series of fragmented events.
- Identify and provide the kind of professional support that will improve teaching skills and content knowledge.
- Thoroughly understand quality instruction, how to integrate academic content into career/technical courses and what conditions foster teaching and learning.
- Use data to initiate change, improve student performance and keep everyone well-informed of progress made and challenges ahead.
- Create a shared leadership approach with a team of teacher leaders to improve curriculum and instruction.
- Visit classrooms frequently to identify outstanding practices for sharing with all staff and to identify ways to improve individual teacher instruction that will result in improved student performance.
- Actively participate in professional development with teachers and create a risk-free environment that encourages teachers to work together and to do what is necessary to improve curricula and instruction.
- Create a flexible time and an organization that encourages teachers to face difficult issues, share instructional practices and content knowledge and agree on solutions that address student needs.

## Appendix

### About the Survey

The 2011 *TCTW* Teacher Survey was administered online to participating *TCTW* centers March 14 – April 22, 2011. All center teachers (grades 9-12) were to participate in the teacher survey, including academic and career/technical teachers. Non-teaching staff (such as media specialists, guidance counselors and administrators) were not included, as very few questions relate to their specific experiences.

### Organization of the Report

Each section of this report is organized around a particular improvement theme relevant to the teacher survey. The tables within each section provide teacher response data for questions and indicators related to the theme.

The Teachers' Perception of Continuous Improvement section includes a "What is the school's emphasis..." table. This table provides data on the index that SREB has developed. Instructional leaders must do more than examine variables in isolation. They must examine combinations of related variables to gain a better understanding of the factors influencing student achievement. The percentage of teachers experiencing an intensive, moderate or low emphasis in the cluster of related variables is reported.

All tables contain data for "All Sites." This data is based on all 1,324 responding teachers at centers that participated in the 2011 *TCTW* Teacher Survey.

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