

A Chronicle of West Virginia's 21st Century Learning Initiative (2004-2008)

"Whoever wishes to foresee the future must consult the past; for human events ever resemble those of preceding times. This arises from the fact that they are produced by men who ever have been, and ever shall be, animated by the same passions, and thus they necessarily have the same results"

Machiavelli



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West Virginia Department of Education

Superintendent/State Board Merits

Edvantia, Inc.

Organizational Structure Information

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Executive Summary

In 2005, West Virginia became the second state in the nation to join the Partnership for 21st Century Skills (“P21”). P21, an advocacy organization that includes members from the business community, education leaders, and policymakers, was developed to “define a powerful vision for 21st century education to ensure every child’s success as citizens and workers in the 21st century” (P21, 2004). Highlighted by four core 21st century student learning outcomes, the unified vision of the Partnership is to develop teaching and learning for the 21st century in order to strengthen education in America. In joining this Partnership, the West Virginia Department of Education (WVDE) collaborated with West Virginia leaders from business, government, and education, who committed themselves to systemic change that will prepare the youth of West Virginia to be productive and successful citizens globally, both now and in the future.

The WVDE, with guidance from the visionary work of P21, has instituted a comprehensive framework of policies, strategies, and resources to implement 21st century learning and instruction. In support of this undertaking, Edvantia, Inc., was contracted to work with the West Virginia Department of Education to create a comprehensive chronicle of West Virginia’s experience with P21.

The structure of this chronicle, organized into 9 major sections, is adapted from the 9 steps to build momentum and 7 strategies for a successful statewide 21st Century Skills Initiative delineated by the Partnership for 21st Century Skills in its publications, [Learning for the 21st Century: A Report and MILE Guide for 21st Century Skills](#) (2002) and [A State Leaders Action Guide to 21st Century Skills: A New Vision for Education](#) (2006). The sections are organized as follows:

1. **21st Century Vision (Broad Consensus/Shared Vision).** State leaders at the highest level made the case for 21st century learning by educating stakeholders at all levels to promote the importance of 21st century skills. They achieved this by establishing and supporting legislation and state and local policies, funding the integration of 21st century skills and core subjects, and reviewing existing technological infrastructures to determine and provide needed investments. West Virginia developed and created a comprehensive communication strategy and sustains an active coalition of businesses, educators, organizations, and parents. Enlisting the support of educators, employers, and community groups and providing ongoing advice during the planning and implementation of the 21st Century Learning Initiative has resulted in broad consensus on a shared vision. The intent of disseminating a strong 21st century vision is to keep everyone focused on the goals of the 21st Century Learning Initiative. The state’s initiative is guided by a set of core documents and 39 critical implementation elements addressing all aspects and levels of the system.
2. **Data Analysis, Planning, and Process Design.** The state engages in comprehensive analyses of data in order to strategically plan the implementation of the initiative and design the processes that will move the state educational system toward the initiative’s goals. Data analyses are ongoing and serve several purposes, including input for the design of the initiative, feedback on the progress of the initiative, and information on the success of the initiative.
3. **Management and Organization.** The WVDE reorganizes its divisions and offices to optimally support the initiative. The Department reviews the allocation of resources and determines how best to allocate, or reallocate, resources to further the initiative’s goals.
4. **Standards and Curriculum Aligned with 21st Century Skills.** The West Virginia Department of Education ensures that curriculum standards incorporate 21st century skills, have the appropriate levels of rigor and relevance, and align with national and international standards. In addition, the WVDE applies more rigorous graduation requirements for course completion, technology proficiency, and the integration of 21st century learning skills across the curriculum.

5. **Programmatic Initiatives to Support Rigorous Content and Student Achievement.** The WVDE develops or repurposes programs to support the 21st century learning needs of the state's students, ensuring a comprehensive array of programs are available to support all aspects of curriculum, instruction, assessment, professional development, and the needs of diverse learners.
6. **Technology Integration to Support Rigorous Content and Student Achievement.** Given the critical importance of technology in the 21st century, the WVDE is modeling the comprehensive and innovative uses of technology by embedding technology integration across the entire initiative, including professional development, instruction, assessment, and instructional resources.
7. **21st Century Assessments.** The WVDE modernizes student assessments to include summative assessment, benchmark assessment, and classroom assessment based on rigorous content standards and objectives that integrate learning skills and technology tools. The comprehensive assessment program is designed to measure a full range of knowledge and skills, explore multiple approaches to student accountability, improve record keeping on crucial learning outcomes, and develop an accreditation and accountability process focused on 21st century learning. Assessments are aligned to the content, context, and learning tools of the 21st century, as defined by P21.
8. **Ongoing Professional Development in 21st Century Skills.** The state has developed a comprehensive professional development initiative that focuses on building the capacity of district-level leadership teams, principals, and teacher leaders. The state supports administrators and teachers with ongoing professional development in 21st century skills, promotes the inclusion of 21st century skills in teacher education programs, and includes competency in 21st century skills in the accreditation criteria of teacher education programs and the requirements for teacher licensure.
9. **Collaboration with Outside Partners.** The state strategically involves a broad array of partners to support all aspects of the initiative, drawing on the best and most innovative programs and organizations to ensure West Virginia's students receive the highest quality 21st century education.

The remainder of this document, which contains many hyperlinks to additional information, elaborates on West Virginia's implementation of the 9 core structural elements of the state's 21st Century Learning Initiative from 2004 through June 2008. The WVDE is committed to continuing to document the process, structures, and resources to support the implementation of 21st Century Instruction and Learning.

Introduction

In November 2004, Dr. Steven Paine, then West Virginia’s Deputy State Superintendent of Schools, attended the Council of Chief State School Officers (CCSSO) conference at Kiawah Island, South Carolina, where he experienced his first substantive contact with the concept of developing 21st century skills. The conference included a session on the Partnership for 21st Century Skills, led by P21 President Ken Kay, who highlighted the key aspects of the Partnership and its intentions. After officially becoming State Superintendent of Schools on July 1, 2005, Dr. Paine realized the value of joining the Partnership.

In August 2005, the West Virginia Board of Education stressed the urgency and need for change in West Virginia’s school system. After the release of the state’s disappointing scores on the National Assessment of Educational Progress (NAEP), the West Virginia Department of Education (WVDE) began to assess the current curriculum, determining that the state’s content standards met the minimal mastery level defined in NCLB and needed to become more rigorous to truly prepare students for a global society. Dr. Paine, joined by the governor, state legislators, educators, school systems, and businesses, signed onto the Partnership in November 2005 at a statewide event.

West Virginia became the second state in the nation to join the Partnership for 21st Century Skills (“P21”). P21, an advocacy organization that includes members from the business community, education leaders, and policymakers, was developed to “define a powerful vision for 21st century education to ensure every child’s success as citizens and workers in the 21st century” (P21, 2004). Highlighted by four core 21st century student learning outcomes¹, the unified vision of the Partnership is to develop teaching and learning for the 21st century to strengthen education in America. In joining this Partnership, the WVDE collaborated with West Virginia leaders from business, government, and education, who committed themselves to systemic change that will prepare the youth of West Virginia to be productive and successful citizens globally, both now and in the future.

In 2005, and building on existing innovative initiatives, the WVDE implemented a systematic and systemic plan to bring the concept of 21st century instruction and learning to scale. The size and demographic characteristics of the state’s educational system places the state at an advantage to implement a systemic initiative; with just 703 public schools (plus 34 institutional schools, 41 vocational schools, and 3 schools for the deaf and blind); 281,711 students, only 2,109 of whom are English language learners, and a student population that is 93.8% White, the small size and demographic homogeneity of the state give West Virginia a certain advantage to pilot test a comprehensive initiative to transform a statewide educational system into a strong and rigorous 21st century teaching and learning environment.

West Virginia’s process for implementing its 21st Century Learning Initiative includes targeted stakeholders receiving focused professional development to support successful implementation through the achievement of the following objectives:

- ✓ The WVDE staff receive comprehensive knowledge of 21st century components through 10 days of required professional development.
- ✓ School district superintendents and district leadership staff receive comprehensive knowledge of 21st century components through six 3-day leadership conferences.
- ✓ The directors of the regional education service agencies (RESAs) and support staff receive comprehensive knowledge of 21st century components through six 3-day leadership conferences.

¹ P21 delineates the following four student learning outcomes: (1) core subjects and 21st century themes; (2) information, media, and technology skills; (3) learning and innovation skills; and (4) life and career skills.

- ✓ All principals receive comprehensive knowledge of leadership skills necessary to create 21st century elementary, middle, and high schools through attendance at a 10-day 21st century leadership institute.
- ✓ All teachers receive comprehensive knowledge of 21st century content and pedagogy to create 21st century classrooms through the process of establishing 600 master teachers trained to support building-level professional development.

This chronicle document describes the processes, structures, and resources that are targeted at building every stakeholder's capacity to understand and support the implementation of the 21st Century Learning Initiative. The chronicle is organized into nine major sections; these include establishment of vision; data analysis, planning and process design; management and organization; standards and curriculum alignment; programmatic initiatives; technology integration; 21st century assessment; professional development; and collaboration with outside partners.

1. 21st Century Vision

West Virginia is determined that students will be ready for the world that awaits them. The West Virginia Department of Education, along with the Governor, state lawmakers, and key stakeholders, has embraced the four key student outcomes of 21st century learning. Through a systemic approach, the WVDE is implementing a learning model that assures West Virginia students will have the knowledge and skills needed to succeed and prosper today and tomorrow. The West Virginia Board of Education's vision of developing a 21st century school system aligns with the West Virginia Jobs Cabinet, which was established by the Governor's Executive Order and works to link educational improvement and economic development in West Virginia. The WVDE recognizes the need to ensure that all stakeholders share a common vision for 21st century instruction and learning and a commitment to designing and establishing processes, legislation, policies, and structure to support the effective implementation of this vision. The process of ensuring this systemic involvement of all stakeholders has included the establishment of advisory councils; communication plans; teacher, student, and business forums; conferences; and the creation of a multitude of guiding documents (e.g., frameworks, legislation, and policies).

21st Century Advisory Council

Central to the vision of creating a 21st century education system is ensuring that the education system is connected locally and globally to business, industry, and other key stakeholders. To that end, the WVDE established the [21st Century Advisory Council](#) to provide input and guidance on the state's 21st Century Learning Initiative. The Advisory Council is composed of 33 business and community leaders from all regions of the state. The Council has provided input and focus to the 21st Century Learning communications plan in an effort to make the public aware of the initiatives and the benefits it will bring to their community's economic growth.

Statewide Communication Initiative

The support and engagement of all stakeholders are crucial to the success of a 21st Century Skills Initiative. Immediately upon joining the Partnership, the WVDE began building alliances and promoting a sense of collaboration by informing educators, business people, and community groups about the potential long-term impact of the initiative on the state's educational system and soliciting their feedback. The WVDE also developed documents to communicate a common vision and language for the initiative.

Teacher Forums

[Voices from the Field](#) was a series of gatherings held around the state in February and March 2006. More than 800 teachers were asked to provide their insights about 21st century skills. At each gathering, the teachers split into small groups and answered two questions:

1. What knowledge and skills does a West Virginia graduate need to succeed in the 21st century?
2. What do you as a teacher need to educate a 21st century learner?

Responses are posted online by the county in which each focus group was held ([Berkeley](#), [Cabell](#), [Greenbrier](#), [Marion](#), [Ohio](#), [Putnam](#), [Raleigh](#), [Wood](#)).

21st Century Teacher Effectiveness Forums were held in the fall and winter of 2007-08; these were designed to solicit information from teachers, administrators, and other key stakeholders and to inform higher education about what teachers needed in teacher preparation programs to prepare them to teach in the 21st century classroom. A white paper on what a teacher needs to know and be able to do in the 21st century was developed and submitted to the West Virginia Commission on Teaching Standards. The Commission is preparing

recommendations for the State Board on what a teacher needs to know and be able to do to be an effective teacher.

Business Leader Forums

As education and economic development converge, the WVDE values the input of the West Virginia business community. To solicit business leaders' input on the direction of education to ultimately produce viable employees, the WVDE contracted with an outside vendor to conduct statewide forums with business leaders in late 2006. Eight business forums were held between May 8 and June 2, 2006. Locations for the forums included Beckley, Morgantown, Wheeling, Martinsburg, Mineral Wells, Summersville, Charleston, and Huntington. Attendees included individuals from the business community, past and present educators, State Board members, Chamber of Commerce members, and Workforce Investment Board members from around the state. Information about the 21st Century Learning Initiative was provided.

All of the participants at the forums agreed that the direction of the WVDE 21st Century Learning initiative was on track and in line with the needs of their organizations. The participants expressed interest in the integration of parent involvement, professional development, basic job skills, communication skills, and technology skills for all students in the implementation of this effort.

Attendees were committed to helping the state work toward a change and were happy to have been a part of meetings where their concerns could be voiced.

Student Focus Groups

In January 2008, student focus groups were held in four locations across the state. Led by State Superintendent of Schools Dr. Steven L. Paine, these focus groups asked students their opinions about their school system—what they liked, and what they thought should be changed—and what they need to be successful in the 21st century. Following the site visits, and in an effort to reach all West Virginia students, an online student survey was launched in May 2008. Results for this survey will be utilized to determine needed initiatives, policy changes, or communication requirements.

School System Leadership Team Conference

The school system leadership team conference is a foundational component of West Virginia's systemic approach to developing 21st century schools. Since 2004, the Superintendent's Center for 21st Century Schools has conducted at least two conferences each year to support school systems as they move to address the demands of effectively preparing West Virginia students with the knowledge and skills for work and life in the 21st century. The unifying theme for the more than 10 conferences has been to provide school systems with research, information, and resources to help them serve as catalysts for systemic change.

At each conference, over 500 School System Leadership Team members, selected and lead by the county superintendent, have an opportunity to learn from national and local experts who expand their knowledge and challenge their thinking. Time is provided for county teams to meet and share their thoughts, conduct self-assessments, and then discuss and plan the changes needed to move their school systems forward. A wide array of outstanding educational leaders, such as Larry Lezotte, Douglas Reeves, Willard Daggett, Jim Sweeney, Phillip Schlechty, Terrence Deal, Tom Guskey, Roland Barth, Thomas Houlihan, Linda Darling-Hammond, and Rick Stiggins, have served as keynote speakers at these informative conferences. The Leadership Team Conferences are discussed in more detail in the [Professional Development](#) section of this document.

Communication Plan

In late 2007, the WVDE contracted with a public relations firm to conduct a statewide phone survey exploring the current perceptions of education in general and the 21st Century Learning Initiative in particular. The report was

used to develop the RFP for the integrated marketing communication plan that is being developed in 2008. This plan is attempting to identify target audiences. Plans for developing tailored messages on the 21st Century Learning Initiative will be crafted in collaboration with an outside vendor (public relations firm). The marketing communication plan will be implemented. The successful public relations firm that works with the WVDE will propose tools to evaluate the use of proposed media, including new media (e.g., vodcasts, podcasts, mobile marketing).

Guiding Documents

The West Virginia 21st Century Learning Initiative follows several guiding documents. In any major initiative, guiding documents allow all stakeholders to share a common vision and guide the work to be achieved. Guiding documents clearly delineate the expectations for all stakeholders; i.e., those best practices, high-yield strategies, and outcomes that must be accomplished. Guiding documents must reflect (1) a comprehensive review of the research literature on best practice as well as stakeholder expertise and experience in successful processes; (2) legislation that codifies into statutory requirements fundamental aspects to ensure equity of application; and (3) State Board policy that provides direction and guidance for implementation of structural, programmatic, and procedural requirements.

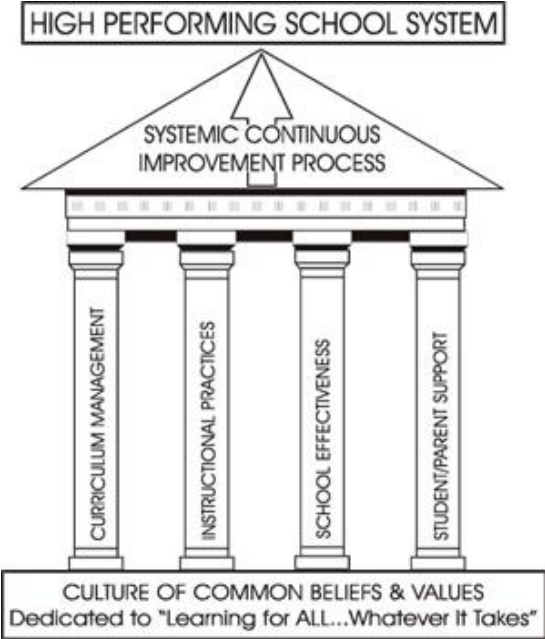
The vision of every West Virginia high school is to graduate all students with 21st century knowledge and skills; ready to succeed in an appropriate postsecondary education program; and able to responsibly live, learn, and thrive in a digital global society.

Frameworks for High Performing System, Schools, and Classrooms

Dr. Paine proposed four initiatives for the West Virginia public school system to meet the demands of 21st century learning and living: (1) refine the vision of the West Virginia graduate to include competence in 21st century content, skills, and tools; (2) develop higher quality assessments; (3) develop support systems; and (4) align the vision across all stakeholders and remove the barriers to change. The *Framework for High Performing 21st Century School Systems* and the companion *Frameworks for High Performing 21st Century Schools* and *Frameworks of High Performing 21st Century Classrooms* are the foundation for these four proposals. [These frameworks](#) are the basis for a common language and a common vision of the culture, processes, and practices of a great West Virginia school system.

The frameworks are organized around four pillars of organizational structure: curriculum management, instructional practices, school effectiveness, and student/parent support. These pillars build on a culture of common beliefs and values to create a systemic continuous improvement process that results in a high performing school system. These pillars are described below.

In the Framework for High Performing School Systems, the requirement for a rigorous 21st century curriculum is explained. The West Virginia Department of Education must ensure that all students master an appropriately prioritized and sequenced pre-K-12 21st century curriculum that develops enduring understanding, essential learning skills, and critical knowledge as defined through the policies of the West Virginia Board of Education and the West Virginia Content Standards and Objectives (CSOs).



The instructional practices pillar includes six elements of 21st century learning: (1) focus on core subjects; (2) emphasis on 21st century content using the (3) 21st century context; (4) using 21st century technology tools and (5) 21st century assessments to promote and measure and (6) 21st century learning skills. To support the key elements of 21st century learning, school systems, schools, and teachers must attend to and implement high-yield, engaging, and relevant instructional strategies; formative assessment; intervention; effective classroom management and organization; monitoring; extended day/year programs; and technology integration.

The school effectiveness component of the framework relates to assuring that all schools exemplify the 21st century leadership, culture, and organizational practices consistent with effective schools research and school communities possess the commitment, knowledge, and support to create structures and services that result in all students achieving high levels of performance in a 21st century rigorous curriculum.

The fourth pillar in the framework is student support and parent-community connections. This pillar is included to assure that all students receive the support they need to achieve high levels of performance in a 21st century rigorous curriculum and that all parents and community members are treated as valued partners in their students' educational process.

Vision for 21st Century Education

West Virginia's action to join P21 established a statewide initiative, known as [21st Century Learning in West Virginia](#). The intention of the collaboration with P21 is for West Virginia to transform public education in the state, creating a more rigorous and globally competitive educational system. All West Virginia students will meet or exceed national education standards and prepare for higher learning and the world of work through the programs, services, and offerings of West Virginia's thorough, efficient, safe, and nurturing education system. Within the appropriate framework (system or school by level) is a concise statement regarding the vision for 21st century education at that level.

The framework vision creating a 21st century school level sets forth that by 2014, the WVDE and the eight Regional Education Service Agencies will help create systemic conditions, processes, and structures within the West Virginia public school system that result in (1) all students mastering the essential curriculum and beyond; (2) closing the achievement gap among subgroups of the student population; and (3) developing competence in 21st century content, learning skills, and tools.

The vision of the West Virginia elementary school is to ensure that all students are proficient in literacy and math; to develop a sense of efficacy and love of learning; to provide a rich foundation in the areas of science, social studies, the arts, health, and wellness; and to integrate 21st century content, skills, tools, and assessments into the learning environment.

The vision of the West Virginia middle school is to create an environment dedicated to academic rigor for all students, where expectations are high and support is strong; to promote students' efficacy as learners; to develop their learning skills and responsibility for achievement; to guide them through the personal issues of early adolescence and to build the foundation for high school and postsecondary choices.

The vision of the West Virginia high schools is to ensure that all students graduate with 21st century knowledge and skills; are self-directed and proactive about their education and future; prepared for success in an appropriate postsecondary education program; and able to responsibly live, learn, and thrive in a digital global economy. High schools are "specialists" in adolescents, seeking ways to help every student feel a sense of affiliation with the school and developing and refining students' academic and personal talents. High schools understand that the middle teen years are the time for exploration and preparation for careers; therefore, work-based learning, introduction to majors, and community service opportunities must be offered to assist students in making decisions about the future. High school students are guided by and directed toward a rigorous academic program that prepares them for success in postsecondary education (technical credential, two- or four-year degree) and for living and learning in a high technology digital world.

21st Century Learning For West Virginia Students

The WVDE created a document called [21st Century Learning for West Virginia Students](#). This internal document provided a context and rationale for 21st century learning, a definition of the key elements of 21st century learning, and an overview of a 21st century curriculum and anticipated learning proficiencies as defined in the following excerpts:

- ✓ **A System Redesign:** 21st century learning is a redesign of the educational system that affects how district offices, schools, and classrooms are structured and has at its core the mission to develop self-directed, motivated learners who can demonstrate the skills and knowledge that are foundational for the workforce of the future.
- ✓ **Focused on Rigorous World-Class Content and 21st Century Skills:** 21st century learning is built on world-class curriculum standards for both content and skills. It graduates students who have mastered core content while also cultivating an understanding of global awareness, financial, economic and business literacy, civic literacy, and personal health and wellness. It features the importance of 21st century skills focusing on the development of (1) Information and Communication Processing Skills (2) Thinking and Problem-Solving Skills, and (3) Personal and Workplace Productivity Skills.
- ✓ **Taught and Assessed Using Engaging, Relevant Processes:** 21st century instructional processes develop learners who have deep understanding of and the ability to apply knowledge to authentic real-world situations. Instruction in a 21st century classroom places emphasis on student self-direction and developing the ability, confidence and curiosity to learn. Foundational to 21st century learning is the use of 21st century technology tools and classroom assessments for learning that guide the instructional process.
- ✓ **Prepares All Students to Succeed in the Globally Competitive Society in Which They Will Live:** By focusing the educational system on 21st century learning, students will be prepared to embrace the challenges of the global society in which they will live. By developing deep understanding of knowledge and enduring thinking and learning skills, students will be able to adapt to a rapidly changing world and assume productive roles as family members, citizens, workers, and leaders in a complex competitive digital age of the 21st century.

The West Virginia curriculum for 21st century learning is delivered through both schoolwide and classroom experiences appropriate to learner needs and characteristics at each programmatic level. These experiences focus on world-class rigorous standards taught and assessed through authentic and contextual processes. Instruction is relevant to learners' lives and is designed to develop deep understanding of and the ability to apply core concepts and skills to real-world situations. The learner's pre-k through 12 curricula should result in proficiency in three broad areas:

1. **21st Century Skills and Technology Tools:** 21st century skills are categorized in three broad areas that integrate the use of technology with the development of specific skills. The areas are: (1) Information and Communication Processing Skills (information and media literacy; visual literacy; and oral, written, and multimedia communication skills), (2) Thinking and Problem-Solving Skills (critical thinking, systems thinking, problem solving, and creating and innovating), and (3) Personal and Workplace Productivity Skills (Interpersonal and collaboration skills, self direction, adaptability, ethical behavior, social/personal accountability, leadership and project planning and development).
2. **Core Subjects:** The core curriculum for the 21st century is expanded beyond the traditional basics to include the following subjects as essential for all students: reading and English/language arts, mathematics, science, foreign languages, civics and government, economics, history, geography, and the arts. At each programmatic level, specific requirements related to these core subjects are defined in policy. Across the curriculum sequence, there must be an overall emphasis on increased rigor and higher standards for student performance.

3. **21st Century Interdisciplinary Content:** Within the curriculum sequence, 21st century curriculum content themes permeate the life of the school in both classroom and schoolwide activities. These themes are global awareness; financial, economic, and business literacy; civic literacy; and personal health and wellness. These themes are developed at each programmatic level based on the characteristics and needs of the learners; experiences around each theme should result in learners who have the knowledge, skills, and dispositions to be personally responsible and act as informed citizens of their school and community. The specifics of how each area is integrated into the life of the school are determined through a collaborative staff planning process that results in a consistent and pervasive focus on 21st century content.

21st Century Teacher

The [framework documents](#) describe the expectations for 21st century teachers, who must expect changes in their roles and responsibilities. For decades, teachers have played a largely autonomous role, being almost totally responsible for making decisions affecting the classroom. However, as Dr. Lawrence Lezotte, noted researcher in the area of effective schools, explains, “Today’s school systems are highly complex interrelated organizations in which high levels of collaboration and cooperation are necessary to produce success for all.” Teachers need to see themselves as part of a broader school team dedicated to shaping a cohesive schoolwide culture characterized by consistent and pervasive core beliefs and practices and creating a schoolwide learning community that collaborates, utilizes technology tools, analyzes data, problem solves, and plans strategically to improve schoolwide conditions that lead to student success. Teachers of the 21st century are the master facilitators of learning: They help and guide students through well-constructed instructional strategies that build meaning and understanding. Teachers must see the design of the instructional process differently in the 21st century classroom, where mastery of content, proficiency with 21st century learning skills, relevance to real-world situations, and use of 21st century technology tools become the critical components of good instructional design. Teachers also must understand student assessment processes differently by understanding the importance of a balanced assessment system. In a bell-curve environment, assessments are used primarily to grade students. In a 21st century environment, students are asked to perform authentic assessments that truly demonstrate proficiency and enable teachers to redirect and reconstruct the instructional process. Finally, teachers need to make a personal commitment to grow professionally, all the time learning what will bring greater success to the students they serve. Becoming proficient in the instruction of 21st century content, learning skills, technology tools, and assessments is part of a natural and ongoing progression in professional growth.

21st Century Partnership Application

In the fall of 2005, West Virginia’s [application](#) for inclusion in the Partnership for 21st Century Skills was submitted and approved. The application described West Virginia’s approach to the comprehensive, systemwide change to ensure students are equipped with the knowledge and skills to be successful citizens in the 21st century. The application includes the names of the initial members of the State Superintendent’s Advisory Council for the West Virginia Frameworks for 21st Century Learners.

Also included is the WVDE’s professional development plan for implementing the frameworks. To expand teacher capacity across West Virginia and to assure that students acquire 21st century skills, both the current teacher workforce and the teachers of the future must be provided appropriate professional development. Toward this end, West Virginia Board of Education (WVBE) Policy 5100 (Approval of Educator Preparation Programs) was recently revised to include language that reflects the addition of 21st century learning skills as an expectation within the conceptual framework of teaching and learning in West Virginia. The objectives for professional development include (1) designing and implementing online professional development that provides an orientation for all West Virginia educators to define and provide specific examples of the five content and skills areas that represent the essential knowledge for the 21st century; (2) ensuring all new and ongoing WVDE-, WVCPE-, and RESA-sponsored professional development incorporates 21st century skills and reflects relevant

examples for each content area taught in the public schools; (3) having each teacher complete a 21st century skills technology literacy self-assessment to provide information that will form the basis of a technology literacy professional development plan to be used as part or all of a teacher's annual professional development; and (4) embedding 21st century skills in all core subjects and teacher preparation programs in higher education.

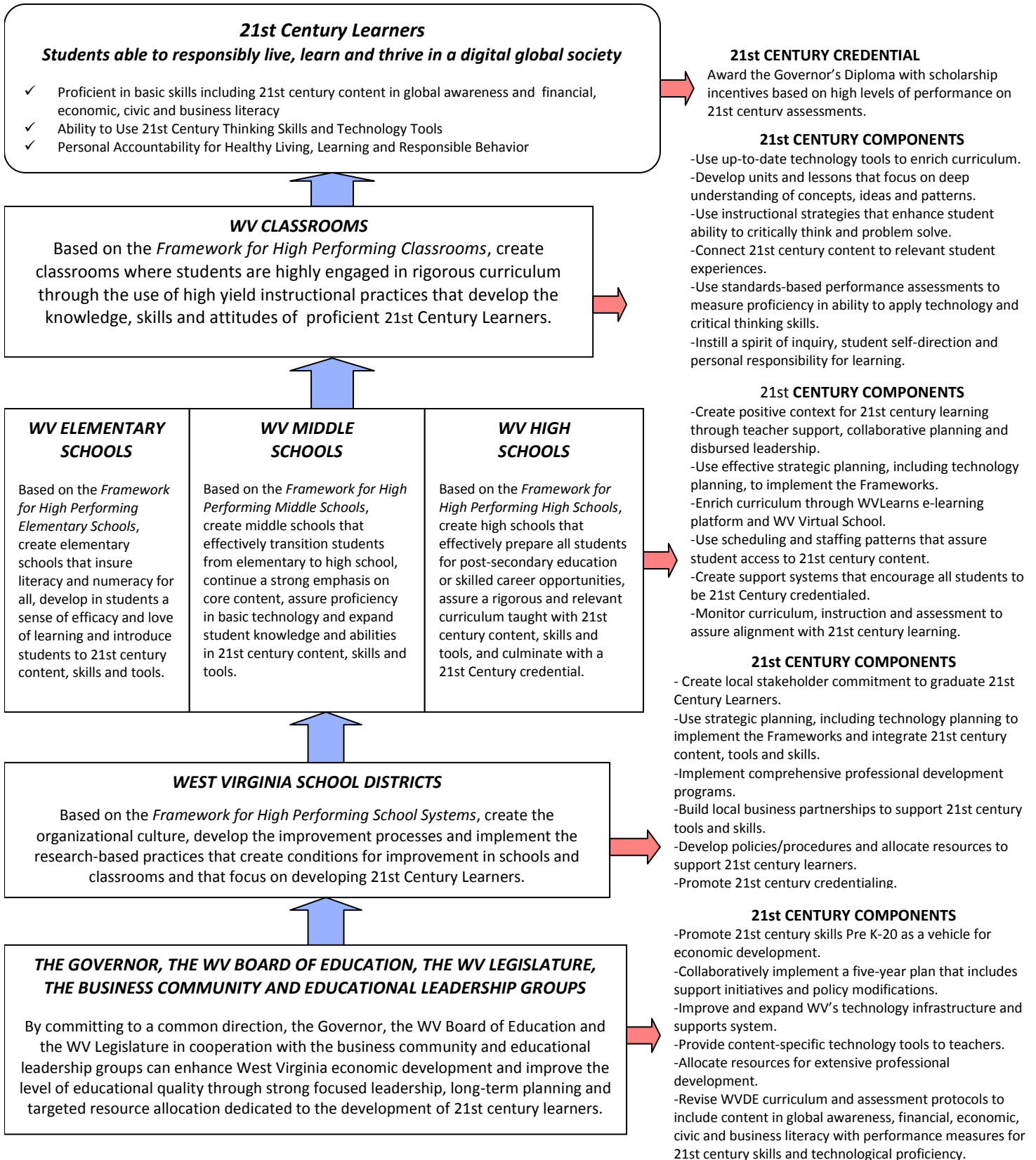
The application describes how West Virginia would review its educational standards, increase their rigor, and include key dimensions of 21st century learning: global awareness; civic engagement; financial, economic, and business literacy; learning skills that encompass problem solving, critical thinking, and self-directional skills; and information and communication technology literacy. The WVDE set forth a plan to identify in core subject areas those 21st century learning skills required for students to be successful, audit current academic content standards for the inclusion of 21st century learning skills, and revise current content standards to include 21st century learning skills by 2007.

A fourth major component of West Virginia's plan is the development of a comprehensive and balanced assessment system. The application describes how the WVDE released an RFP to transform the West Virginia Measures of Academic Progress, the statewide assessment program, into 21st century assessments that measure and are aligned to learning skills, which are embedded in the revised content standards by grade level. The objectives of this new assessment program are to create valid and reliable assessments that (1) are aligned to the 21st century skill descriptors and state content standards and objectives; (2) inform instruction; (3) promote school improvement; and (4) produce results that can be used to calculate school, county, and state accountability as outlined by the No Child Left Behind Act of 2001.

Finally, the application described how West Virginia would approach the P21 Leadership State Expectation of being *communicators of proof of concept*. West Virginia's methods and systems to capture and measure success of the state's initiatives focused on the development of rubrics to measure implementation progress and outcomes of [the 39 critical elements](#) of the initiative, systematically embedding evaluation mechanisms into pre-existing information systems, and, ultimately, summative evaluation approaches to assess the success of the initiative. These 39 critical elements target areas of the education system (e.g., professional development, assessment) that must be addressed, altered, or improved to achieve the vision of the 21st Century Learning Initiative.

The graphic of West Virginia's collaborative model for developing 21st century learners, which was included in the application, is reproduced on the next page.

West Virginia Department of Education
Collaborative Model for Developing 21st Century Learners
 Based on the WV Framework for High Performing School Systems



Legislation/Policies

In addition to publicizing the initiative and getting all stakeholders on board, state leaders must shape policies that support the initiative and provide the funding to carry out those policies. This formidable task requires the state department of education to develop overarching policies that support the initiative and policymakers to enact laws, policies, and programs that align with the goal of preparing all students for the 21st century.

Legislation

The following are examples of the legislation passed by the West Virginia State Legislature to support the transformation of the state school system as called for in the initiative. §18-5-44.

- ✓ [Senate Bill 595](#) (WV Code §18B-14-9 among others), passed and effective March 8, 2008, outlined “Vision 2020: An Education Blueprint for 2020,” required the State Board of Education to establish a plan with specific goals, policy-oriented objectives, and performance-oriented objectives for public education, consistent with the state’s 21 Century initiative; and created the Process for Improving Education Council, which would consult with, and make recommendations to, the State Board on issues related to Vision 2020. This bill also established state goals for higher education; outlined elements of accountability for public higher education; and specified postsecondary priorities related to economic and workforce development, education access and affordability, student preparation, degree completion, college recruitment and retention of working-age adults, emphasis on STEM (science, technology, engineering, and mathematics) courses and programs, institutional research capacity, and the functional literacy of adults.
- ✓ [Senate Bill 603](#) (WV Code §18-2E-7), passed March 10, 2007, effective July 1, 2007, provided for 21st century instruction and learning in all public schools. The bill established a 21st Century Tools for 21st Century Schools Technology Initiative. As part of this initiative, WVDE would develop a West Virginia 21st Century Strategic Technology Learning Plan, and funds would be allocated to county school systems to provide equitable access to technology services for students in Grades Pre-K-12.
- ✓ [Senate Bill 657](#) (WV Code §18-2E-5), passed March 10, 2007, effective July 1, 2007, required the revision of education standards, assessments of student performance, and the system for holding schools and school districts accountable for student performance. These revisions would align with the language and intent of the state’s 21st Century initiative.
- ✓ [House Bill 2585](#) (WV Code §18A-3-11), passed March 10, 2007, effective July 1, 2007, provided for the designation of up to 25 professional educators as 21st Century Learner Fellows, to be employed by a state institution of higher education or a research corporation without losing the benefits received as professional educators.
- ✓ [House Bill 4588](#) (WV Code §18-9A-10), passed March 8, 2008, to be effective July 1, 2008, relates to the fiscal support of public schools, including a provision for the funding formula for the foundation allowance to improve instructional programs (see the subsection Resources to Support the Initiatives in the Management and Organization section of this chronology). Specific components of the provision govern the allocation of funds for the purposes of and to meet the objectives set forth by the West Virginia 21st Century Strategic Technology Learning Plan (see [WV Code §18-2E-7](#)).

Executive Orders

In September 2006, the Governor created the 21st Century Jobs Cabinet to promote a seamless P-20 education system that encompasses job training and lifelong learning and supports economic development in the state. The Cabinet is composed of 25 members, including educators, business leaders, and state legislators, and is cochaired by the state’s [First Lady](#) and the [CEO](#) (a West Virginia native) of the international law firm, Orrick, Herrington, and Sutcliffe, LLP. The

members of the 21st Century Jobs Cabinet meet with schools and businesses to ensure students are prepared for the 21st century workforce.

“West Virginia Competes: A Global Vision for the 21st Century” brought together members of the 21st Century Jobs Cabinet, other educators, business leaders, and state officials, to establish a common mission for educational, workforce, and economic development. This forum generated guiding principles for creating a seamless system of education in West Virginia—one that encompasses educational, workforce, and economic development strategies—and developed an action plan for curriculum transformation, communications about educational achievement and college access, teacher excellence, strategic partnerships among stakeholders, and leadership.

During his 2007 State of the State Address, the Governor introduced a 3-year program to strengthen the relationship between the state’s business and education communities. The Jobs Cabinet and the [Education Alliance](#) are involved with the Student Educational and Economic Development Success program (SEEDS), which partners a seasoned business mentor and master educator with a school principal, who applies to be part of the program.

West Virginia Board of Education (WVBE) Policies

In 2007, the West Virginia Board of Education developed a [Strategic Plan](#) to operationalize its [policies](#) in support of the 21st Century Learning Initiative. The plan is based on five strategic goals and includes performance criteria for measuring progress toward each goal, objectives for addressing the goals, and an overview of activities to accomplish each objective (WVDE, 2007). The five goals state that all students shall

1. master or exceed grade-level educational standards that reflect 21st century skills and learning
2. receive a seamless pre-K-20 curriculum designed and delivered with broad stakeholder involvement to promote lifelong learning in a global society
3. develop and promote responsibility, citizenship, strong character, and healthful living
4. be educated in school systems that operate and deliver services efficiently and effectively
5. be educated by highly qualified personnel

These established WVBE goals serve as the foundational structure for the development of WVDE and divisional work plans as identified and described in the Alignment of Multiple Planning Documents section of this chronology.

The Board of Education has revised [Policy 2510](#) and its related subpolicies (listed below), which describe the state’s educational standards, to allow school districts more flexibility in implementing the 21st Century Learning initiative. It has also revised many of the content standards and objectives (CSOs) to align with the language and intent of the initiative. These policies to increase rigor of the CSOs technically go into effect July 1, 2008, although much work has already been accomplished to increase rigor and align standards with 21st century content and skills development.

- ✓ [Policy 2510](#): Assuring the Quality of Education: Regulations for Education Programs
- ✓ [Policy 2520.1](#): 21st Century Reading and English Language Arts CSOs
- ✓ [Policy 2520.2](#): 21st Century Mathematics CSOs
- ✓ [Policy 2520.3](#): 21st Century Science K-8 CSOs
- ✓ [Policy 2520.35](#): 21st Century Science 9-12 CSOs
- ✓ [Policy 2520.4](#): 21st Century Social Studies CSOs
- ✓ [Policy 2520.5](#): 21st Century Health Education 5-12 CSOs
- ✓ [Policy 2520.55](#): 21st Century Wellness PreK-4 CSOs
- ✓ [Policy 2520.6](#): 21st Century Physical Education 5-12 CSOs
- ✓ [Policy 2520.7](#): 21st Century Foreign Language CSOs
- ✓ [Policy 2520.8](#): 21st Century Driver Education CSOs
- ✓ [Policy 2520.9](#): 21st Century Dance CSOs
- ✓ [Policy 2520.10](#): 21st Century Music CSOs
- ✓ [Policy 2520.11](#): 21st Century Theatre CSOs
- ✓ [Policy 2520.12](#): 21st Century Visual Arts CSOs

- ✓ [Policy 2520.14](#): 21st Century Learning Skills and Technology Tools CSOs
- ✓ [Policy 2520.18](#): 21st Century American Sign Language CSOs

Other policies have also been adopted by the WVBE that support the 21st Century Learning Initiative, including the following:

[Policy 2320: A Process for Improving Education: Performance Based Accreditation System \(Effective December 17, 2008\)](#)

[Policy 2320](#) puts forth six education goals for the state of West Virginia:

1. All children entering the first grade will be ready for the first grade.
2. All students will have equal education opportunity.
3. Student performance on national measures of student performance will equal or exceed national averages and the performance of students falling in the lowest quartile will improve by 50 percent.
4. Ninety percent of ninth graders will graduate from high school.
5. High school graduates will be fully prepared for college, other postsecondary education, or gainful employment. The number of high school graduates entering postsecondary education will increase by 50 percent.
6. All working-age adults will be functionally literate.

For relevant state law, see [WV Codes §18-1-4](#) and [§18-2E-5](#). This comprehensive policy also goes into detail about state policy on the distribution of responsibility, measures for determining adequate yearly progress for West Virginia public schools, annual performance measures for accountability, state annual performance measures for school accreditation status and school system approval status, high-quality standards, indicators of efficiency, the electronic county and school strategic improvement plan process, school accreditation status, exemplary accreditation status, low-performing accreditation status, school system approval, nonapproval status, the appeals procedure, on-site reviews, capacity building, and identification of resource needs.

[Policy 2450: Distance Learning and the West Virginia Virtual School \(Effective September 11, 2002\)](#)

The scope of [Policy 2450](#) establishes requirements for distance, online, and technology-delivered learning programs, including student needs, course content, teacher/facilitator guidelines, virtual classes, funding, and management at the state, county, and school levels. The policy provides a framework for delivering the range of courses and opportunities for students, expanding the range of courses and opportunities for students, filling the need for qualified teachers, providing low-incidence courses where enrollment numbers do not justify assigning a teacher or when scheduling conflicts prevent students from taking a course when it is offered. For relevant state law, see [WV Code §18-2E-9](#).

[Policy 2419: Regulations for the Education of Students with Exceptionalities \(Effective September 11, 2007\)](#)

The scope of [Policy 2419](#) covers policies and procedures that apply to preschool, early childhood, middle childhood, adolescent and adult students whose educational programs require special education and related services. These apply to 3-year-olds, as of their third birth date, through 5-year-olds with disabilities, and students with disabilities aged 5 through 21, all exceptional gifted students in Grades 9 through 12, and all gifted students in Grades 1 through 8 as specified. Rights under these regulations cease to apply at the end of the school year in which the student turns 21 years of age (prior to September 1) or when the student has met graduation requirements for a standard high school diploma. The policy defines the Response to Intervention model and documentation of each student's response to intervention. For relevant state law, see [WV Code §18-20-1 et seq.](#)

Policy 2525: West Virginia’s Universal Access to a Quality Early Education System (Effective August 13, 2007)

The scope of [Policy 2525](#), a procedural rule, establishes the criteria for approving and operating programs for 3- and 4-year old children in West Virginia’s universal pre-K initiative (for relevant state law, see [WV Code §18-5-44](#)).

Policy 2340: West Virginia Measures of Academic Progress (Effective December 14, 2006)

[Policy 2340](#) establishes policies and procedures regulating the administration and operation of the West Virginia Measures of Academic Progress (WV-MAP). The policy’s primary purpose is to provide an operational framework to allow the statewide WV-MAP assessment program to operate effectively and efficiently, providing, also, for procedures to protect the integrity of the assessment data. Further, Policy 2340 outlines procedures to support the use of WV-MAP assessment data to improve instruction. For relevant state law, see WV Code [§18-2E-1a](#), [§18-2E-5](#), and [§18-2E-8\(c\)\(1\)](#).

Policy 2200: Parent, Family, and Community Involvement in Education (Effective July 1, 2008)

[Policy 2200](#) outlines rules and policies for the development of local policies pertaining to parent, family, and community involvement in West Virginia schools. The primary purpose of the policy is to provide guidance and guidelines for strengthening parent, family, and community involvement in education in each of West Virginia’s 55 counties. The West Virginia Board of Education believes that such partnerships at every level of education (from elementary through secondary) are fundamental to the development and sustenance of a healthy educational system. The underlying philosophy of the policy holds that parents, teachers, and community members can reinforce and build on each others’ efforts to promote high student achievement at school, at home, and in the community. Policy 2200 explicitly states that county policies will encourage cooperative efforts between families, communities, and schools to promote 21st century learning ([§126-11A-3.1.1](#)). For relevant state law, see [WV Code §18-2E-5](#).

Policy 3233: Establishment and Operation of Regional Education Service Agencies (RESAs) (Effective May 2007)

The revised [Policy 3233](#) amends W.Va. 126CSR72, Establishment and Operation of Regional Education Service Agencies, Policy 3233, filed February 13, 2004 and effective March 15, 2004. This policy focuses on the following RESA services and responsibilities: establishment, governance and administration, finances, strategic plan, standards for service delivery, accountability and reporting and severability.

The strategic plan goals of the this policy include providing technical assistance to low-performing schools; providing high-quality targeted staff development; facilitating coordination and cooperation among county boards; installing maintaining, and/or repairing education-related technology equipment and software with special attention to the state-level basic skills and SUCCESS program.

Policy 5100: Approval of Educational Personnel Preparation Programs (Effective January 14, 2008)

[Policy 5100](#) establishes the processes and procedures required for institutions of higher education to receive approval from the West Virginia Board of Education to operate educational personnel preparation programs. The legislative rule outlines the requisite framework for developing, implementing, and approving such preparation programs. Policy 5100 defines, identifies, and prescribes major program components, assessment instruments and procedures, minimum proficiency levels, and program approval criteria. The Conceptual Foundation for Teaching and Learning in West Virginia, which is Appendix A-1 in the Policy 5100 document, specifically outlines the centrality of 21st century content, knowledge, skills, and tools in providing comprehensive, high-quality education for West Virginia’s children. In its recent revision, Policy 5100 was amended to require all teacher and administrator preparation programs to include at least 3 semester hours of coursework directly related to instructional technology. This course must be designed to address all respective ISTE (NETS-T and NETS-A) standards. In addition, all preparation programs must address the ISTE standards throughout the program. In the fall of 2008, The West Virginia Commission for Professional Teaching Standards will

present to the West Virginia Board of Education a revised set of standards pertinent to this policy and the preparation of West Virginia's future teachers. For relevant state law, see WV Code §§ [18-2E-5](#), [18A-3-1](#), and [18A-3-1a](#).

Policy 5202: Minimum Requirements for the Licensure of Professional/Paraprofessional Personnel and Advanced Salary Classifications (Effective January 14, 2008)

[Policy 5202](#) was revised to include an additional category of licensure: The Advanced Credential. The intent of this category of licensure is to reward and recognize educators who complete coursework and professional development beyond the requirements for the Professional Certificate. Categories of Credentials include Mentor Teacher, Advanced Placement Teacher, Technology Integration Specialist, and Educator 21. The Advanced Credential endorsed as Educator 21 is designed to recognize educators who completed professional development or coursework with an emphasis on moving beyond basic competency in core subjects to promoting an understanding of academic content at higher levels by integrating 21st century interdisciplinary themes into core subjects. The Technology Integration Specialist Advanced Credential is awarded on completion of the WVDE-approved program designed to prepare educators to serve as classroom-based instructional support for teachers as they integrate educational technologies into their instruction. In addition, Policy 5202 now requires 3 semester hours of instructional technology coursework to renew a professional certificate. This coursework must address the ISTE standards.

Policy 6200: Handbook on Planning School Facilities (Pending Board Approval June 2008)

[Policy 6200](#) is being revised and considered at the June 2008 meeting of the WVBE. A committee was formed in January 2008 with superintendents, architects, engineers, regulatory officials, state board members, the WVDE director of school facilities, the assistant superintendent in charge of the Division of Support Services, and a representative from the regional education service agencies. Over the course of five meetings, with subgroups working independently between meetings, the committee developed recommendations for how the state needs to design future school facilities to meet energy efficiency and green standards and to accommodate a curriculum for the 21st century. The revised draft policy pays close attention to the building design requirements that will facilitate project-based learning and technology integration.

2. Data Analysis, Planning, and Process

The WVDE is committed to making decisions based on effective, collaborative analysis of available data. To that end, the WVDE has consistently convened stakeholder groups to identify concerns, provide guidance and recommendations, and address areas of need. Such stakeholder analyses of data have reviewed studies and reports on student performance by subgroups, professional development, accountability and accreditation, high-need students, high school preparation, and technology.

Structure for Data Analysis and Closing the Achievement Gap Report

The 2008 [*Closing the Achievement Gap for 21st Century Learners in West Virginia*](#) report, 2nd edition, is designed (1) to establish a structure of comprehensive data analysis and (2) update West Virginia educators on the status and improvement of student achievement in West Virginia as a basis for determining future educational decisions. In order to enhance the quality of performance, the following areas focused around the (1) review of the literature and research factors that impact student performance; (2) determination of the status and progress of subgroup performance; (3) review of programs and strategies being used to close the achievement gap between subgroups in West Virginia public schools; (4) generation of findings and conclusions related to student performance; and (5) recommendations for consideration as a result of the findings identified. The report is organized into seven areas:

1. Background provides a historical account of the call for accountability from West Virginia to the federal level. It introduces past and current federal and state legislation that drives the initiatives of student achievement and school improvement. This section reviews West Virginia Board policy, goals, and legislation addressing student performance and discusses the emerging organizational structures that address 21st century learners.
2. Introduction addresses the challenges of closing the achievement gap in student performance at different operational levels. This section defines the accountability structures established by the West Virginia Board of Education through policy and initiatives, the West Virginia Legislature through code, West Virginia Department of Education through the design of the *Framework for High Performing School Systems*, and the plan for implementing 21st century skills.
3. Identified Achievement Gap Groupings and Performance Factors Impacting the Achievement Gap reviews the current literature associated with factors that contribute to poor student achievement and/or the achievement gap. This section identifies the subgroups within West Virginia, their performance on state and national assessments, their associated achievement gaps, performance factors such as school attendance and graduation rates, and other factors affecting performance that need to be improved by the collaborative efforts of West Virginia educators and state leaders through the Partnership of 21st Century Skills.
4. State Public School Subgroup Impact Data (Assessment and Additional) provides longitudinal assessment data by subgroup for national and state assessments, including WESTEST, NAEP, ACT, ACT PLAN, ACT EXPLORE, SAT, CTE ACT WorkKeys, CTE End-of-Course Exams, and HSTW assessments, as well as summaries and findings. Additional data also provided by subgroup include Advanced Placement, Attendance Rate, Dropout Rate, Graduation Rate, College Going Rate, Retention Rate, healthy literacy data, and CTE Placement in Employment or Postsecondary Education.
5. Closing the Achievement Gap Initiatives in West Virginia describes each program and/or strategy that the West Virginia Board of Education and the West Virginia Department of Education have developed and implemented to improve student achievement and to close the performance gap for all students.

6. Conclusions from the data have been embedded in the Identified Achievement Gap Groupings section. The conclusions drawn are based on State and National Public School Subgroup Impact Assessment Data, Additional Impact Data, and the Closing the Achievement Gap Initiatives.
7. Recommendations are based on the conclusions drawn in this report from each area in which trend data have been collected, as well as for the Closing the Achievement Gap Initiatives.

The usefulness of this report is as a comprehensive collection of assessment data for analysis and other valuable indicators that can be used to analyze and monitor West Virginia's progress. Additionally, the use of this report will assist local school district leadership in prioritizing achievement indicators and organizing decision making with regard to student achievement.

Professional Development Stakeholders Report

In November 2006, the *West Virginia Professional Development Stakeholder Group Report* was presented to the West Virginia Board of Education. The report included a number of recommendations to guide the development of a comprehensive professional development program that would further the goals of the 21st Century Learning Initiative. The following recommendations were made:

- ✓ Develop a comprehensive, results-oriented vision, goal, and plan for the state's professional development system.
- ✓ Ensure collaboration among the state's primary professional development providers—WVDE, West Virginia Center for Professional Development (WVCPD), Institutes of Higher Education (IHEs), Regional Education Service Agencies (RESAs), and Local Education Agencies (LEAs). Such collaboration might be reflected in "content academies" that would be collaboratively designed to instruct state leaders in methods to teach West Virginia's new curriculum (revised content standards and objectives, technology skills, and learning skills) necessary for the 21st century learner. This design could also include subject-based networks for teachers to convene as learning communities as follow up to the content academies.
- ✓ Adopt professional development standards as the foundation of the West Virginia professional development system.
- ✓ Adopt a standards-based approach to the development, licensure, and re-licensure of educators, including standards for school leaders that promote a vision of district and school administrators as educational leaders.
- ✓ Ensure educators are prepared to effectively use student data and assessment for learning strategies to determine professional development priorities.
- ✓ Recommend revisions to the existing funding formula and school calendar to reduce the barriers of time and resources for professional development.
- ✓ Make teacher competence in cultural understanding and teaching diverse learners a priority for professional development.

The report explicated the West Virginia Board of Education's responsibility to ensure that the state's educators are well prepared to teach today's rigorous academic content in a 21st century context, and to teach the technology skills and learning skills that are part of West Virginia's curriculum. Without a coordinated statewide system of professional development, the WVBE would be hampered in achieving its constitutional obligation of providing this thorough and efficient education. The WVBE is committed to establishing a comprehensive statewide system of professional development for its educators so that West Virginia's students leave the public schools ready to enter the world awaiting them.

Office of Education Performance Audits (OEPA) Report

The [Office of Education Performance Audits](#) assists the West Virginia Board of Education, the Legislature, the Governor, and the Process for Improving Education Council in establishing and maintaining a system of education performance audits that measures the quality of education and the preparation of students based on standards and measures of student, school, and school system performance and progress and the processes necessary in providing a thorough and efficient system of education in West Virginia. In October 2006, a report titled [Report on the Recommendations of the Education Performance Audit Study Committee](#) was issued. The report described the recommendations from each subcommittee involved in the study: (1) Annual Performance Measures, (2) High Quality Standards, (3) Accreditation of Schools and Approval of Counties, and (4) Education Performance Audit Processes and Procedures. The major recommendations in the report are as follows:

1. All components of the NCLB adequate yearly progress (AYP) be retained with the exception of (a) moving the 10th-grade assessment to the 11th grade and (b) develop a modified assessment on modified standards
2. Include revised high-quality standards in the following six areas to be used as self-assessment by schools and districts to replace OEPA checklist and measured through an online rubric:
 - a. Implement a rigorous standards-based 21st century curriculum for all students that is aligned with content standards
 - b. Use 21st century instructional processes that are research based, learner focused, relevant to students, and engage learners in quality meaningful work
 - c. Develop a strong learning-centered cohesive culture built on a set of core beliefs and characterized by the correlates of effective schools
 - d. Meet the academic, physical, and social/emotional needs of all students and develop positive relationships with families and the community
 - e. Utilize principles of continuous improvement and effective strategic planning to meet the needs of all learners
 - f. Implement management practices that assure an efficient and effective operation conducive to 21st century learning
3. Develop a new accreditation and school recognition system that incorporates 21st century expectations and includes an index of assessment measures and other indicators. The NCLB requirements would remain, but not be central in the accreditation of schools
4. Design an on-site review process that is triggered by performance data that can verify strengths and deficiencies and is based on the six components of high-quality standards

Low-Incidence/High-Need Task Force Report

During the summer of 2006 the Division of Curriculum and Instructional Services led a cross-office effort to investigate the issues surrounding the achievement gap among subgroups and between subgroups and all students. The Task Force to Improve Results for Students in High-Need Populations focused its inquiry and subsequent recommendations on students who are economically disadvantaged, students with disabilities, and students in minority populations. In mid-August the recommendations and strategic plan of the Task Force were presented to the Task Force at large. The [Improving Results for Students in High Need Populations: A Strategic Plan](#), which addresses these achievement gaps through 16 Priority Recommendations that emerged from five Action Work Groups, centered the discussion for groups across the state to gain feedback on effective implementation. Each of the 16 recommendations is reviewed on a semi-annual basis to determine progress toward the goals inherent in the recommendations.

Bringing each goal to completion so that improved results for these populations can be ensured is a multiyear effort across WVDE, RESAs, local school districts, and community organizations. The collective goal is to establish a structure through which the WVDE can further the evolving work and establish the foundation for new efforts. As a result, the

Strategic Plan will remain a dynamic and flexible document that accommodates insights and new research as the work continues.

High School Task Force Report

The High Schools for West Virginia's Future Task Force was convened in February 2005 under the leadership of then-State Superintendent of Schools David Stewart. The purposes of the task force were to review the status of West Virginia high schools in the context of the available performance data and research-based practices; make recommendations to the State Board of Education in reference to policies, statutes, and practices that will result in ALL students achieving success in high school and postsecondary pursuits; and propose a plan of action that will put the agreed-upon recommendations into practice at the high school level. The task force released its report, titled [*A Vision for Students Success: High Schools for West Virginia's Future*](#), in August 2005. The Task Force's vision that all West Virginia high school students will graduate with the knowledge and skills needed for success in postsecondary education, the workplace, and life is clear. The Task Force made five sets of recommendations, organized according to the National Governors Association's *Action Agenda for Improving America's High Schools*. Included were suggested action steps and strategies for each recommendation. Below are the recommended action steps organized by the *Action Agenda*.

- ✓ Increase the value of the high school diploma.
 - Assure curricula are aligned to provide relevance and rigor for students' postsecondary and career success.
 - Make the senior year more challenging and meaningful for all students.
 - Provide college and work readiness credentials for all students.
- ✓ Redesign the high school experience to reflect rigor and relevance for all students.
 - Increase learning opportunities for all students.
 - Engage students in relevant and rigorous curricula and instruction.
 - Provide guidance and advisement activities to assist all students in making informed decisions.
 - Improve student transitions from middle grades to high school.
- ✓ Support student success with excellent teachers and principals.
 - Provide teachers and principals with instructional resources, time, and ongoing professional development for implementing new curricula and research-based instructional methods.
 - Recruit, employ, and retain effective teachers and principals.
- ✓ Set meaningful benchmarks and hold high schools accountable for student success.
 - Create a state accountability system that expects high-performing high schools for all students.
 - Build an integrated data system across K-12, postsecondary, and employment security.
 - Provide targeted and aggressive technical assistance to low-performing high schools.
- ✓ Ensure a seamless system of education pre-K through adulthood.
 - Create a sustainable and effective P-20 council.
 - Engage families and communities as partners in supporting students' social, emotional, and academic needs.
 - Use technology as an avenue to maintain open communication between home and school.
 - Re-engage adults and out-of-school youth without diplomas or GEDs in the educational system.
 - Create a directory and clearinghouse of career and education resources/information accessible to all students and families.
 - Emphasize nutrition and lifelong wellness across the high school curriculum.

Technology Report

In June 2006, the WVDE released the document, [*Technology for 21st Century Learners: West Virginia's Comprehensive Report of Findings and Recommendations*](#), which was developed by a statewide advisory committee of educational

technology experts and other stakeholders. This report, known as the CRFR, was presented to the West Virginia Board of Education, West Virginia Legislature, the Governor's Office of Technology, and other educational entities. The 96 recommendations were incorporated into the completion/revision of the State Educational Technology Plan that was formatted consistently with the online 5-year strategic plans developed by West Virginia's school systems and schools. The Technology Plan incorporated recommendations from federally funded Evaluating State Educational Technology Projects (ESETP) conducted on two West Virginia programs. The Enhancing Education Through Technology (EETT) [evaluation](#) showed positive impacts on student achievement and instructional utilization of computers by teachers and students. In addition, the West Virginia Virtual School courses were found to be equal to face-to-face instruction and to provide equitable access to courses. The CRFR for educational technology for 21st century learners incorporated the following:

- ✓ Commitment to work with all stakeholders and partners to maximize efficiency of effort and resources
- ✓ Integration of 21st Century Learning key elements, learning skills, and technology tools
- ✓ Summary of current status of access to equipment, infrastructure, software, professional development, and technical assistance
- ✓ Identification of defined areas of need
- ✓ Determination of interventions to address needs
- ✓ Flexibility to adjust the plan based on developing technology, federal and state requirements, and changing local school and county needs
- ✓ Commitment to implement the recommendations for West Virginia's future

The resulting [State Educational Technology Plan for 2007-2010](#) includes the following goals and objectives:

1. Goal 1 (Integration/Instruction): To continue to advance comprehensive, standards-based technology resources and online opportunities
 - 1.01. Focus on using 21st century digital resources to improve achievement of all students
 - 1.02. To provide students with equitable access to virtual courses for a more complete, rigorous curriculum that otherwise would not be available
 - 1.03. Promote collaboration with various partners for improved collaboration and use of 21st century resources
 - 1.04. To ensure districts and schools are completing strategic plans that address all federal technology compliances and plan for standards-based instruction for improved 21st century instruction
2. Goal 2 (Infrastructure): To advance a comprehensive, standards-based technology infrastructure (computers/presentation stations/bandwidth/Internet access/Student Information System)
 - 2.01. Increase the percentage of West Virginia schools with industry-supported operating systems to provide students with equitable access
 - 2.02. Increase the number of instructional presentation tools (e.g., data projectors, interactive white boards, handheld digital devices) to provide 21st century instructional environment
 - 2.03. To purchase and allocate sufficient bandwidth to support 21st century instruction
 - 2.04. To purchase and allocate sufficient Internet access to support 21st century instruction
 - 2.05. To establish and maintain up-to-date contracts to support a standards-based infrastructure for purchasing technology that allows for standardization and cost benefits
 - 2.06. To maintain a current and comprehensive statewide management and information system with a high degree of availability
3. Goal 3 (Professional Development): To transform teachers' instruction with online and on-site collaborative support/technology integration professional development
 - 3.01. To increase use of online professional development by West Virginia teachers
 - 3.02. To provide sustained, job-embedded professional development (both online and on-site collaborative support) that prepares teachers to transform instruction by integrating technology into the curriculum

- 3.03. To promote and support (based on annual funding) West Virginia teachers receiving technology integration training so they may act as instructional support personnel in the school setting
- 4. Goal 4 (Assessment/Evaluation): To enhance 21st century instruction based on best practices learned from research-based evaluations and 21st century classroom assessments
 - 4.01. To design a technology literacy skills self-assessment available for all educators to support 21st century classroom assessments
 - 4.02. To design and implement an eighth-grade assessment of information, communications, and technology (ICT) literacy
 - 4.03. To comply with the OEPA regulations and guidelines regarding school and district improvement audits that include the use of technology

3. Management and Organization

In taking on the major challenge of embedding 21st century skills instruction into West Virginia's education system, it was essential that WVDE make some changes in its organization and structure. This reorganization, directed by the State Superintendent of Schools, included changes at all levels. In addition to reorganization efforts, WVDE along with the Governor of West Virginia established additional support to assist with the planning and procedures involved in incorporating 21st Century Skills in the state.

The newly developed initiatives also created the need for [planning documents](#) and additional resources to support the implementation of the 21st Century Learning initiative in the state. WVDE developed planning documents, or frameworks, that aligned to the goals of the initiative and identified 39 critical elements to be addressed through the development of division, office, school, and county work plans and implementation of those work plans.

In its budget requests to the state legislature, WVDE has included improvement requests that support programs associated with these new initiatives. They also recently revised the formula for state-aided funding to align it with the goals of the 21st Century Learning Initiative.

Reorganization of WVDE

In February 2006, WVDE began to reorganize to achieve greater focus on 21st Century Learning. Changes included combining offices as well as moving some offices to new divisions. There were also management personnel changes within WVDE, improving the management and expertise of each unit. The focus of the reorganization was to increase efficiency and capacity of the WVDE to support 21st century instruction and learning in all classrooms.

Current Organization of WVDE

The [current structure of WVDE](#) consists of five divisions: Superintendent, Curriculum and Instructional Services, Special Projects, Student Support Services, and Technical and Adult Education Services.

Office of the Superintendent

The Office of the Superintendent includes the [State Superintendent of Schools](#) and his executive staff. The office is led by the [Deputy Superintendent](#), who oversees the work of seven offices: Legal Services, Internal Operations, School Finance, Communications, Human Resources, Information Systems, and the Executive Assistant to the State Superintendent.

The Office of Legal Services provides legal counsel to the Department of Education and to the State Board of Education, along with providing state educators and the general public with day-to-day information about applicable law references and superintendent's interpretations. The office's two attorneys and one investigator also assist in teacher termination hearings and license revocation cases, formal grievances, court cases, and Freedom of Information Act requests.

The [Office of Internal Operations](#) provides fiscal services for the following entities: the West Virginia Board of Education, the West Virginia Department of Education (WVDE), the Cedar Lakes Conference Center, more than 20 Institutional Education facilities throughout the state, the State Board's Office of Educational Performance Audits, and the West Virginia Schools for the Deaf and Blind. The office's customers also include vendors who conduct business with any of these entities. Areas of service include cash management, grants management, subrecipient disbursements, purchasing, payment of claims for programs administered by the Office of Child Nutrition, travel reimbursements with or travel reimbursements without stipends paid to consultants, accounts payable, accounts receivable, and payroll.

The Office of School Finance (<http://wvde.state.wv.us/finance/>) collects, organizes, and summarizes finance information and data about school districts in West Virginia. Data include salaries, enrollment, state aid funding formula, revenues and expenditures, and property tax and levies.

The Office of Communications is in charge of all internal and external communications, including public relations, marketing, news media, and Web site development. The office also oversees publications, internal printing services, and graphic design, and conducts and/or cosponsors various events for the WVDE. A review of the WVDE's [Web page](#) emphasizes the large volume of information provided to state educators, parents, students, and the school community. This office also heads up a department-wide technology team charged with discussing technology issues, planning for future technology use, and building avenues of communication among the WVDE's various offices and their initiatives.

The Office of Human Resources assists WVDE employees by providing a central source of employment-related information and services. From this office's [home page](#) employees can access job postings, assistance documents for interviewing/hiring/evaluating/terminating employees, the current agency handbook, the agency organizational structure, and employee evaluation and plan of assistance forms. This office oversees the Associate Staff Tuition Reimbursement Program, the Leave Donation Program, the new employee mentor program, the Teacher of the Year Program, the Schools of Excellence for 21st Century Learning Program, and agency parking, in addition to being the point of contact for Equal Employment Opportunity issues, Workers' Compensation, and other personnel matters.

The [Office of Information Systems](#) oversees the West Virginia Education Information System (WVEIS). The WVEIS project was created in 1990 to ensure standardized data collection and reporting to the West Virginia Department of Education. By consolidating individual county computer systems into several larger Regional Education Service Agency (RESA)-based systems for reporting, processes were streamlined and individual county expenses were reduced. The WVEIS project has grown to include every county Board of Education office and school in West Virginia and has formed a Wide Area Network (WAN) with links to each of the eight RESA offices in the state and to the State Department of Education. Student applications on the WVEIS network include student scheduling, student attendance, student grading, and several custom programs. Financial and employee applications include payroll processing, human resources, fixed asset inventory, warehousing, and purchasing. The WVEIS is the West Virginia public school system's data warehouse.

The Executive Assistant to the Superintendent is responsible for special projects assigned by the Superintendent and for a variety of organizational matters. Among the organizational matters, this person provides information/responds to inquiries about policy and education laws, including graduation requirements, waivers to State Board policies, veteran diplomas, nonpublic and home schools, and summer school approval. Additionally, this person frequently serves as a liaison to the State Board of Education and performs tasks as requested by the Board. The Executive Assistant represents the State Superintendent of Schools when he is unable to attend functions and assists with his correspondence.

Division of Curriculum and Instruction

The [Division of Curriculum and Instruction](#), led by a division [Assistant Superintendent](#), was reorganized to provide leadership and technical support to assist districts and schools to provide classroom instruction integrates rigorous content skills with learning skills and technology tools within relevant context and through engaging learning experiences. To maximize efficiency and coordinate efforts, Executive Directors of all four major offices and the Assistant Superintendent form a team to guide and support all activities and functions for each office. The Division of Curriculum and Instruction consists of the following offices: Instruction, Assessment and Accountability, Instructional Technology and Special Programs, Extended and Early Learning. The Division has been constituted with offices whose functions are interrelated, and the effectiveness of any one office is interdependent on the work of the other offices. This alignment of function within one division allows for major initiatives to be supported in a cohesive unified approach to ensure common focus and purpose.

The [Office of Assessment and Accountability](#) is divided into four components: assessment, research, special education monitoring, and Title I. The assessment staff design, develop, and administer state tests and provide training to local school districts on administration and use of results. The research staff provide technical data in the assessment

development process and interact with the vendor psychometricians to assure technical quality. Additionally, they provide research studies for Department initiatives. The special education monitoring staff monitor local school districts with regard to implementing federal regulations and guidelines, and provide technical assistance to district special education directors. The Title I staff work with local Title I directors throughout the year to implement the federal regulations and guidelines and to provide technical assistance.

The [Office of Instruction](#) is headed by an Executive Director. There are two Assistant Directors. One works with the English, Arts, Social Studies, and Instructional Materials coordinators, and the other works with the Math, Science, Math/Science Partnership, and Professional Development coordinators. The work of this office centers around developing teacher leaders who understand quality lesson design and effective instructional strategies. This is done through professional development such as the Teacher Leadership Institute, the Model Classroom initiative, the Social Studies Institute, Elementary Mathematics Model Lessons, and the new kit-based science initiative for elementary teachers. Teachers who work in this office have become skilled practitioners through participation in the development of curricular materials such as standards-based units, Instructional Guides, model lessons, and Power Standards, all of which can be found on [Teach 21](#), an online comprehensive resource for educators.

The [Office of Instructional Technology](#) concentrates on the instructional implementation of 21st century tools and resources into the classrooms and curriculum areas. Instructional technology integration is based on the national International Society for Technology in Education (ISTE) standards and the 21st Century Skills Partnership frameworks. The office oversees and implements several statewide initiatives, including distance learning through the West Virginia Virtual School, Internet and intranet infrastructure and filtering, e-mail accounts for educators and K-12 students, WVLeads e-learning platform, district and school online technology plans, and the Technology Tools for Schools program at both the elementary and secondary levels. Also housed with the Office of Instructional Technology are the federal and partnership initiatives, including Title IID Ed Tech (EETT), two U.S. Department of Education Scientifically-Based Research Grants, Technology Integration Specialists, E-rate, Intel, Thinkfinity, SAS inSchool, Oracle Think.com, Southern Regional Education Board (SREB), State Educational Technology Directors Association (SETDA), [Consortium of School Networks](#) (COSN), and Web 2.0 professional development for educators.

During the reorganization, the Office of Special Education was reconfigured to be the [Office of Special Programs: Extended & Early Learning](#). This reorganization expanded the office's scope of work to include all of pre-K programming, the Reading First grant, statewide pre-K to 12 literacy effort, administration of IDEA, and programs to improve results for all students not achieving mastery in reading and math on the state assessment. Essentially, the work of this office looks at the subgroups of NCLB as well as the implementation of IDEA and pre-K, including targeted K-12 instructional interventions for low-achieving students. Its student scope includes universal pre-K to students with special needs who are served to age 21. This office works closely with the Assessment and Accountability Office because of the special needs populations and their rights, ensuring assessments are accessible and accommodations are appropriate. The office works with the technology office to ensure all special education and other teachers are using all available instructional technology resources to provide alternate resources for instruction that meet different learning styles.

Division of Special Projects—Superintendent's Center for 21st Century Schools

Led by the [Special Assistant to the Superintendent](#), the [Division of Special Projects](#) oversees two offices, two professional development initiatives, the e-Learning initiative, and two grant-funded programs: the Office of Professional Preparation (Certification) and the Office of School and School System Improvement; leadership development and classroom assessments for learning; and the 21st Century Community Learning Centers and the Closing the Achievement Gap programs.

In addition to processing applications for educator licensure and reimbursement, the [Office of Professional Preparation](#) (OPP) coordinates the state's educator recruitment and retention efforts, as well as the state's higher education educator preparation programs. OPP coordinates the state's [mentoring Web site](#), the [National Board for Professional Teaching Standards](#) program, the [Transition to Teaching](#) program, and the [Troops to Teachers](#) program.

The Office of School/School System Improvement coordinates the state Title II programs and conducts the monitoring of those programs, in addition to overseeing the Closing the Achievement Gap, the [21st Century Community Learning Centers](#), and the [e-Learning](#) programs.

School system and leadership development includes professional development for principals, superintendents, and district leadership teams. An 11-day professional development experience, the 21st Century Principal's Leadership Institute, provides 200 principals annually with high-quality leadership training. In addition, the 21st Century District Leadership Team Conference provides teams from each of the state's districts with high-quality professional development (6 days annually for 500 participants per 3-day conference). The office also oversees the state takeover of 3 districts and 4 other low-performing districts identified as needing assistance; office staff members lead teams to work in each district.

This division also oversees the [Classroom Assessments for Learning](#) initiative. More information can be found in the [21st Century Balanced Assessment](#) section of this document.

Division of Student Support Services

The [Division of Student Support Services](#) is composed of six offices: Child Nutrition, ESL-International Schools, Healthy Schools, Institutional Education Programs, School Facilities, and Transportation. Headed by a division [Assistant Superintendent](#), the Division of Student Support Services provides services to school districts to assure that all students have the appropriate educational support services needed to successfully participate in the learning process. The Division also oversees the Department's initiative to help districts increase parent and community involvement in the educational process.

The [Office of Child Nutrition](#) oversees the national school lunch program, the school breakfast program, the child and adult care food program, the summer food service program, and the family day care home program. The office's purpose is to administer federal nutrition programs to ensure children receive nutritious meals and to provide federal reimbursement to sponsors (e.g., schools, child care centers, Head Start facilities, residential centers). The office ensures program integrity through monitoring for compliance and adherence to federal regulations.

The [Office of ESL-International Schools](#), through its [West Virginia Connections](#) site, provides leadership, technical assistance and support for schools that serve linguistically and culturally diverse students and assists all schools in providing appropriate international and multicultural education. This office oversees the implementation of federal Title III programs that serve students with limited English proficiency, World Language programs that increase student proficiency in world languages, Chinese Guest Teacher program that brings native Chinese-speaking teachers to West Virginia schools, and the West Virginia International School that enables international students to successfully maintain their native language and culture.

The [Office of Healthy Schools](#) is committed to helping students develop the health literacy and wellness skills that are included in the 21st Century Content. The Office does this by providing leadership and coordination for the instructional programs of health education, physical education and driver education; health services, including school nursing care, and linkages to mental health and oral health services; and environmental health initiatives, including positive school climate, tobacco control, Safe and Drug Free Schools, and local school wellness councils.

The [Office of Institutional Education Programs](#) is responsible for the administration of education programs for institutionalized juveniles and adults in state pre-dispositional juvenile detention centers, correctional institutions, and regional jails. The office provides direct services in 43 institutions statewide.

The [Office of School Facilities](#) oversees the state's 727 educational buildings in regard to indoor air quality and compliance with health and safety standards, provides technical assistance and training to school district maintenance directors, conducts professional development for energy awareness and conservation through efficiency studies to counties, and reviews all plans for new construction for compliance and approval. The office also writes the guidelines and approval for every district's 10-year comprehensive educational facilities plan (CEFP).

The [Office of Transportation](#) annually certifies every bus driver in the state and ensures the Web-based training of all bus drivers. The office provides bus inspections in all school systems to ensure compliance and safety for the students. The major objective is to ensure that students get to and from school safely every day and are transported by certified and qualified bus drivers. The office oversees the funding of transportation needs in the state.

Division of Technical and Adult Education Services

Led by a division [Assistant Superintendent](#), the [Division of Technical and Adult Education Services](#) is designed to prepare adults and secondary students for employment and lifelong learning. This division offers education programs and training through career and technical sites at more than 300 schools across the state. It is composed of four offices: Adult Education and Workforce Development; Career and Technical Instruction; Planning, Evaluation, Special Programs, and Support Services; and Technical and Secondary Program Improvement.

The [Office of Adult Education and Workforce Development](#) oversees adult basic education, GED preparation, and DHHR grants for the retraining of adults, providing services for underemployed and unemployed workers. The office works directly with other agencies for workforce development in the state and is in charge of training for public service workers, such as firefighters, EMTs, waste water management employees, hazardous materials workers, and first responders.

The [Office of Career and Technical Instruction](#) provides instructional supervision for all secondary and adult career and technical programs in the public schools and correctional institutions. The office administers and supervises all eight career/technical student organizations (e.g., FFA, FBLA). It is both a technical assistance and professional development provider, working with schools and career and technical teachers and administrators. The office revised all career and technical education content standards to reflect 21st century skills, increase rigor, and align with national industry standards. Subsequently, the office revised courses to enhance rigor and alignment. The office develops [programs of study](#) for career concentrations and administers online, end-of-course assessments in more than 120 courses.

The [Office of Planning, Evaluation, Special Programs, and Support Services](#) oversees the state's implementation of the Carl Perkins legislation and maintains the accountability system for career and technical education. The office also is in charge of the school counselor program, including the [LINKS program](#), an advisor/advisee program that will assign all high school students an advisor for their 4-year high school experience.

The [Office of Technical and Secondary Program Improvement](#) serves as the liaison between academic and career and technical education at the secondary level. The office provides direction and technical assistance to schools and office staff keep abreast of and disseminate research on high school reform, graduation requirements, experiential learning, and programs of study.

Supporting Organizational Entities

Several other organizations support the work of the WVDE to implement the 21st Century Learning Initiative.

West Virginia Center for Professional Development

The mission of the [West Virginia Center for Professional Development](#) is to advance the quality of teaching and management in the schools of West Virginia through (1) the implementation of statewide training, professional staff development, and technical assistance programs and practices to assure the highest quality in such teaching and management; and (2) the provision of technical and other assistance and support to regional and local education agencies in identifying and providing high-quality professional staff development and training programs and implementing best practices to meet their locally identified needs.

The West Virginia Center for Professional Development works with the WVDE to support professional development to implement 21st century instruction and learning through the following initiatives:

- ✓ **Governor’s Academy for Teaching Excellence:** GATE is the cornerstone of the center’s professional development programs. Designed to keep educators’ skills sharp and up-to-date, GATE sessions are held across the state to give teachers and administrators around West Virginia access to this critical training resource.
- ✓ **Principals’ Leadership Academy for Experienced Principals:** This Academy delivers innovative leadership training to meet principals’ professional development needs.
- ✓ **Principals’ Leadership Academy for New Principals:** The Academy for new principals is an intensive 6-day program culminating in a comprehensive action plan.
- ✓ **Evaluation Leadership Institute:** Like most of the Center’s professional development programs, the Evaluation Leadership Institute is mandated by the West Virginia Legislature. ELI provides principals and central office administrators with training to build the skills for effectively evaluating personnel. The sessions are held each year in each Regional Education Service Area (RESA) of the state.
- ✓ **Mentoring and Teacher Induction:** West Virginia is one of only eight states that support new teacher mentoring programs. The center’s Beginning Teacher Mentor Institutes provide teachers new to the profession or new to the state with workshops and training to ensure a smooth transition into the world of teaching. This includes pairing each one with a veteran teacher who will mentor them during their first year in the classroom.
- ✓ **Advanced Placement:** Research shows that students who participate in advanced placement classes are more likely to perform well in and graduate from college in less than 4 years. API is a comprehensive professional development program that prepares teachers to challenge students with rigorous subject matter that allows them to gain college credits while still in high school.

Regional Education Service Agencies (RESAs)

In 1972, the West Virginia Legislature enacted legislation that caused the West Virginia Board of Education to establish multidistrict [Regional Education Service Agencies](#) (RESAs) for the purpose of providing high quality, cost effective educational programs and services to school systems. Technical, operational, programmatic, and professional services are among the types of programs and services appropriate for delivery on a regional basis.

In 2002, Senate Bill 4319 established certain areas of service in which the RESAs can best assist the state board in implementing a standards-based accountability model for education in West Virginia. According to the legislation, the areas of service include the following:

- ✓ providing technical assistance to low-performing schools and school systems
- ✓ providing high-quality, targeted staff development designed to enhance the performance and progress of students
- ✓ facilitating coordination and cooperation among county boards in such areas as cooperative purchasing; sharing of specialized personnel, communications, and technology; curriculum development; and operation of specialized programs for exceptional children
- ✓ installing, maintaining, and/or repairing education-related technology equipment and software with special attention to the state-level basic skills and SUCCESS programs
- ✓ receiving and administering grants under the provision of federal and/or state law
- ✓ developing and/or implementing any other programs or services as directed by law or by the West Virginia Board of Education

Office of Education Performance Audits (OEPA)

The mission of the [Office of Education Performance Audits](#) (OEPA) is to assist the West Virginia Board of Education, the Legislature, the Governor, and the Process for Improving Education Council in establishing and maintaining a system of education performance audits that measure the quality of education and the preparation of students based on

standards and measures of student, school, and school system performance and progress and the processes necessary in providing a thorough and efficient system of education in West Virginia. OEPA goals are as follows:

- ✓ Determine school accreditation and school system approval status for each school and each school district in the state.
- ✓ Assure that each school and each school system is accountable for the efficient use of existing resources to meet or exceed standards.
- ✓ Require each school and each school system to annually target resources to improve student, school, and school system performance.
- ✓ Provide accreditation information to the Legislature, Governor, the general public, and any individual who requests such information.
- ✓ Establish early detection and intervention programs to assist underachieving schools and systems in improving performance.
- ✓ Assure that all statewide assessments of student performance are secure.
- ✓ Establish as part of the process for improving education the development of the capacity of schools and school systems to meet or exceed standards.
- ✓ Train/retrain a cadre of people for on-site reviews.
- ✓ Identify exemplary schools and school systems.
- ✓ Monitor and evaluate the components of the Office of Education Performance Audits.

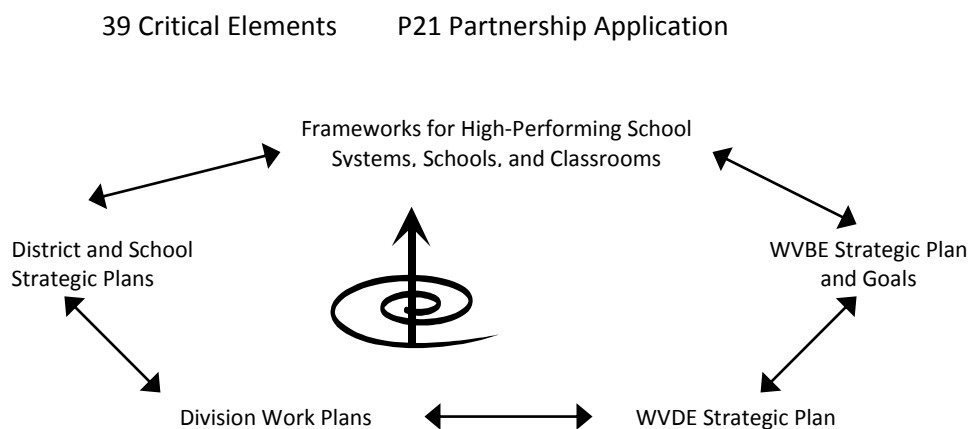
Alignment of Multiple Planning Documents

The West Virginia 21st Century Learning Initiative is guided by a set of dynamic, interdependent, cohesive, and comprehensive planning documents. The planning documents are supported by the P21 partnership application and the delineation of 39 critical elements of West Virginia’s initiative.

The [West Virginia frameworks](#) for high-performing school systems, schools, and classrooms serve as key planning documents that guide all levels of the educational system toward providing a 21st century education. The WVBE Strategic Plan and goals have been developed to align with the frameworks, West Virginia’s P21 application, and the 39 critical elements. The WVDE Work Plan is developed directly from the Board’s Strategic Plan. Each division within the WVDE must align its work plan and strategies with the WVDE Strategic Plan. The offices within each division contribute their work plans to the creation of the division strategic plan. The division work plans include specific strategies and activities, responsible parties, and timelines intended to meet objectives that are aligned with the goals of the WVDE Strategic Plan. Also included are rubrics for evaluation and intended impacts on instruction and student achievement. The online structured district and school strategic plans must describe how the systems and schools will address the 21st century goals of the initiative using a structure similar to the work plans.

These aligned planning documents influence one another in a cyclical process—as the state’s initiative becomes more mature, initial improvements are institutionalized, and the next phase of the improvement process begins.

West Virginia Department of Education Cyclical Process for Planning



WVDE and Division Work Plans

The West Virginia Board of Education and the WVDE are committed to improving the educational proficiency of all students in West Virginia. To this aim, the West Virginia State Board of Education developed a set of five strategic goals. These goals have been translated into the [WVDE and Division strategic plans](#) that include objectives to achieve the goals; timelines, activities, and responsibilities to implement the plan; and evidence to measure progress toward achieving each goal.

District and School Strategic Plans

Every year, the districts and the schools of West Virginia engage in creating a strategic plan for their major improvement goals and funding for federal programs. Each year, school systems are required to submit revisions and additions to their existing Five-Year Online Strategic Plan due on September 15. The district plan serves as the basis for the school Five-Year Online Strategic Plan due October 15. The components of both the district and school plans include *plan committee, core beliefs and mission, data analysis, goals/objectives/actions, compliances, budget, utilities and resources*. District strategic plans are reviewed by appropriate WVDE staff utilizing a rubric, while school strategic plans are evaluated by district personnel.

The WVDE's Five-Year Online Strategic Planning Tool was recently revised in Spring 2008 to streamline the requirements and enable a more strategic and less operational process. [Strategic Planning Tool Professional Development](#) related to the revised planning tool used in both districts and schools is currently being offered by the WVDE Office of School and School System Improvement.

Resources to Support the Initiatives

WVDE has moved to request additional resources to support newly developed initiatives aligned with 21st Century Skills. WVDE's 2009 budget request, presented by the [Deputy Superintendent](#) to the state legislature, prioritized the budgetary needs of the department. Six of the top 10 improvement requests supply funding to programs associated with the 21st Century Learning Initiative. These allocation requests were to support the improvement of Virtual Schools, Technology Tools for 21st Century Schools, the World Language Program, Entrepreneurship Career Technical Academies, High Schools of Business, and Model 21st Century High Schools that Work.

In addition, WVDE has recently revised the formula for state-aided funding as outlined in the Public School Support Program (PSSP), a foundation allowance program that provides funding to local school districts for personnel salaries, employee benefit costs, transportation operation costs, administrative costs, general operating costs and allowances for faculty senates, and improvement of instruction programs. Prior to the recent changes, the PSSP provided districts funding based on an adjusted enrollment count, which included the net enrollment plus twice the number of students enrolled in special education. The [Executive Director of School Finance](#) for WVDE [proposed and had passed](#) a formula change in March 2008 that phases in changes over a 5-year period; this includes funding all West Virginia counties by net enrollment, eliminating adjusted enrollment. This change to net enrollment was driven by efforts toward earlier intervention for special education students as well as efforts to reduce the number of students identified as special needs—highlighted by Response to Intervention (RTI) practices resulting from recent provisions to federal special education regulations.

4. Curriculum and Resources

The Partnership for 21st Century Skills incorporates rigorous and relevant content as an essential component of a comprehensive educational system designed to prepare students to be productive 21st century citizens. To ensure a strong 21st century curriculum for all students, West Virginia embarked on a comprehensive revision of its content standards and objectives (CSOs) in 2007. The revised standards were subjected to a rigorous review by outside experts, revised, and adopted by the West Virginia State Board of Education in 2008 (see policies under 21st Century Vision section). The number of standards was reduced from the previous CSOs and aligned with 21st century content and skills, with increased cognitive demand. The adoption of rigorous standards is not enough, however, to develop high-level skills among the state's student population. With rigorous standards must come teacher resources and supports. This section describes West Virginia's experience with enacting more rigorous standards aligned with 21st century learning goals and the resources that the West Virginia Department of Education is providing to ensure a rigorous and relevant curriculum is enacted in every classroom.

Aligning State Standards to the Rigor of National and International Standards

In March 2006, groups of West Virginia teachers, identified as masters of their content, were assembled to begin work on creating new, more rigorous Content Standards and Objectives. Before they began work, teachers were trained on the 21st Century Initiative and assessing Depth of Knowledge of an objective. The teachers looked at national and international assessments and wrote Content Standards and Objectives and Performance Descriptors designed to ensure that West Virginia students would have the skills needed to achieve at high levels.

Upon completion of the CSOs, the Department sought external state and national reviews and comment. The CSOs were reviewed by a variety of groups and experts who included local and national content experts and business and community members. Members of the Partnership for 21st Century Skills reviewed the CSOs and provided feedback to the Department based on 21st century content, rigor, and context. Additionally, Dr. Norman Webb of the University of Wisconsin reviewed the standards to determine the Depth of Knowledge for each of the objectives and provided comments to the WVDE on how to increase the rigor in the CSOs by grade level. These comments were studied and used to improve the quality of the grade-level CSOs. A third review of the standards was compiled by Dr. William Schmidt of the University of Michigan; this commented on the standards as they aligned to the TIMSS frameworks. The comments from the reviews were studied and adjustments to the CSOs were made when deemed appropriate.

After a number of revisions, the Content Standards and Objectives (CSOs) were placed on further comment to West Virginia educators. All comments were collected and studied for final revisions. The CSOs were presented to and adopted by the West Virginia State Board.

The state board approved [Content Standards and Objectives](#), effective July 1, 2008, to address the rigor and relevance requirements of a 21st century curriculum as recommended by the Partnership for 21st Century Skills and other reviewers. The comprehensive revisions and improvements to the standards will align education in West Virginia with the demands of the 21st century, providing students with the knowledge and skills to compete in a global economy. The following list includes some examples of how the CSOs were revised.

Mathematics CSOs	
Former Policy	Revised Policy
<u>MA.3.16</u> : Solve grade-level appropriate story problems using multiple strategies.	<u>M.O.3.1.14</u> : Create grade-appropriate real-world problems involving any of the four operations using multiple strategies, explain the reasoning used, and justify the procedures selected when presenting solutions.
<u>MA.8.2.3</u> : Use ratio and proportion to create and solve equations.	<u>M.O.8.2.2</u> : Identify proportional relationships in real-world situations, then find and select an appropriate method to determine the solution; justify the reasonableness of the solution.
<u>AL.2.10</u> – determine the equation of a line given a graph of a line, two points on the line, the slope and a point, and the slope and y intercept.	<u>AL.2.8</u> : Extrapolate data represented by graphs, tables and formulas to make inferences and predictions on rate of change (slope) and justify when communicating results within a project-based investigation.
Reading and English Language Arts CSOs	
Former Policy	Revised Policy
<u>RLA.4.1.10</u> : Determine a purpose for reading across the curriculum.	<u>RLA.O.4.1.09</u> : Determine author’s purpose in literary and informational texts and use supporting material to justify author’s intent: 1) to persuade; 2) to entertain; 3) to inform; 4) to determine a specific viewpoint.
<u>RLA.12.1.7</u> : Analyze and evaluate persuasive language and techniques (e.g., advertisements, junk mail, Web sites, news stories)	<u>RLA.12.1.12</u> : Analyze and evaluate persuasive language and techniques (e.g., advertisements, junk mail, Web sites, news stories) for intent, purpose, audience, type [inductive or deductive], and effectiveness.

Developing State Standards for Learning Skills and Technology Tools

In March 2006, a group of West Virginia teachers, identified for their technology, curriculum, and instruction expertise at specific grade levels (elementary, middle, or high), were selected to revise the technology content standards and objectives. After receiving professional development on the Department’s 21st Century Initiative and the process for determining the Depth of Knowledge of an objective, the teachers reviewed national standards endorsed by ISTE (the International Society for Technology in Education) and the Partnership for 21st Century Skills. The overarching goal was to build a rigorous, relevant, and challenging learning skills and technology tools curriculum that reflected both the content and the level of rigor of national standards and would prepare students for the 21st century.

Based on the national standards from ISTE and the Partnership for 21st Century Skills, Policy 2520.14 is organized around three standards and accompanying program-level objectives. The standards are as follows: Standard 1 – Information and Communication Skills; Standard 2 – Thinking and Reasoning Skills; and Standard 3 – Personal and Workplace Skills. The standards and related objectives are organized by program levels, Grades PreK-2, Grades 3-4,

Grades 5-8, and Grades 9-12. The intent is to provide the school principal and staff the flexibility to collaboratively design a model of implementation at each level that will help all students to develop proficiency in the three standards.

Seen in whole, the West Virginia Standards for 21st Century Learning reflect the belief that quality, engaging instruction must be built on a curriculum that triangulates rigorous 21st century content, 21st century learning skills, and the use of 21st century technology tools. West Virginia teachers are responsible for integrating the learning skills and technology tools objectives appropriately into the learning environment to prepare our youth to be successful students today and productive workers tomorrow.

Collaborating with Higher Education on College Readiness Standards:

A committee of mathematics and English/reading language arts teachers at the high school and college levels met with the West Virginia Department of Education (WVDE) staff in September of 2007 to determine the College Readiness Standards. The Higher Education Policy Commission convened a group of representatives from West Virginia colleges and universities to define college readiness skills in English and mathematics. These College Readiness Standards were compared to the 11th-grade 21st Century Reading and English Language Arts and Mathematics Content Standards and Objectives (CSOs) provided by the WVDE. The committee agreed on a set of 11th-grade consensus standards and objectives in English and mathematics. The Grade 11 WESTEST Reading/Language Arts and Mathematics tests will align to the West Virginia College Readiness Standards as defined by the committee.

The Grade 11 WESTEST reading language arts and mathematics results will identify college readiness by a defined cut score, which will be determined by the WVDE and the Higher Education Policy Commission. Students who perform at or above these cut scores will be deemed ready to enroll and succeed in college-credit-bearing freshman-level mathematics and English courses. Students who perform below the mathematics cut score will be placed in a college transition course for mathematics as outlined in Policy 2510. They will have the option to retest in 12th grade to receive a college readiness endorsement from WVDE in the area of mathematics.

The Higher Education Policy Commission and the WVDE agree to use the student's score on the Reading/Language Arts and Mathematics WESTEST to determine college readiness. If the student meets the college readiness cut score, that information will be used for freshman placement into entry-level courses. The student cut score will not be used to determine college admissions.

Additionally, the West Virginia Board of Education Policy 2510: *Assuring the Quality of Education: Regulations for Education Programs* requires students in the professional pathway and college bound students in the skilled pathway, who do not meet the State assessment college readiness benchmark in mathematics, to take the appropriate college transition course during their senior year. Schools are required to offer an elective college transition course for students who do not meet the State assessment college readiness benchmark in the area of mathematics. These requirements become effective for students entering 9th grade in the school year 2008-2009. *The first transition courses will be implemented during the 2011-2012 school year.*

Teach 21 Web Site

In [November 2007](#), WVDE launched the [Teach 21 Web site](#), an interactive online tool developed by teachers to assist their colleagues in planning and delivering 21st century instruction. Teach 21 allows educators to quickly access 21st Century Content Standards, learning skills, research-based instructional strategies, technology tools, and other resources. The content on the Teach 21 Web site will grow, with additions and revisions to the content expected to be continuous. As of mid 2008, the site contains many resource links for teachers.

The interactive instructional guide component of the Teach 21 Web site is organized by grade level and the four core content areas. These guides provide classroom teachers with models of quality instructional design that include authentic performance or project-based assessments with accompanying rubrics. The instructional guides focus on the

knowledge, skills, and understandings inherent in the identified power standard and model effective strategies for integration of learning skills, technology tools, and content standards. All instructional guides are written by West Virginia teachers. The development of the instructional guides is a continuous work in progress.

Also being developed are online instructional units. These standards-based units provide the classroom teacher with models of quality instructional design that include both formative and summative assessments with accompanying rubrics. The units focus on the knowledge, skills, and understandings inherent in the 21st Century Content Standards and Objectives and the learning skills and technology tools. They contain research-based strategies that involve students in real-world application. The units, written by West Virginia teachers, are uploaded as they are written.

Power Standards were developed by West Virginia teachers as a model of one way the curriculum might be chunked to support more effective instruction and help students see the connections between what they are learning. These standards, soon to be followed by a second set, will assist teachers as they design their own units, instructional guides, or project-based learning experiences. A detailed description of the process for chunking curriculum is available.

Strategy Bank was created, based on a request from teachers, as a place they could find good, effective instructional strategies for vocabulary, comprehension, and summarization. This section of Teach 21 also contains strategies for activating prior knowledge, writing across the curriculum, getting to know students, and using technology tools. Graphic organizers, folded books, and other ideas for hands-on teaching and learning are included. Teachers have reported using these strategies as part of the curriculum materials they are creating during their professional development with WVDE.

The Interactive CSOs and the searchable Learning Skills and Technology Tools help teachers quickly locate information for their content, grade level, and programmatic level. Teachers can quickly access all materials on Teach 21 that contain a specific objective by clicking on the magnifying glass next to it. This search will bring up related units, instructional guides, and power standards.

The Assessment section of Teach 21 contains sample questions from the new WESTEST 2 so that teachers can get an idea of the rigor that is required. Sample writing prompts and the ACT/SAT Guides will give teachers a look at other assessments commonly used. The Informal Math Assessments for K-3 are currently being added to furnish teachers at those grade levels a way to gauge their students' progress. The Classroom Assessment for Learning document gives teachers an overview of West Virginia's stand on formative, benchmark, and summative assessments.

The Professional Development page contains links to the 21st Century Frameworks for elementary, middle, and high schools. The Model Classroom link presents an overview of the project and links to the released videos that show 21st century instruction and learning in the model classrooms. Also on this page are links to complete professional development modules that can be used by teachers to deliver training in 21st Century Learning, Reading Across the Curriculum, and Mathematics Program Improvement Review.

Teach 21 is a dynamic site, with new content being added or released daily. Teachers who create materials for this site are deepening their understanding of quality lesson design and effective strategies to reach all learners. The site has received national and international recognition, with visitors from 22 countries having viewed it.

5. Programmatic Initiatives

WVDE designed various programmatic initiatives to implement its strategic plan for 21st century learning. Some of these initiatives were in place prior to the Department's 21st Century Learning Initiative, while others have been implemented directly to support the goals of the initiative. Regardless of the date of implementation, this comprehensive set of initiatives brings West Virginia's educational system closer to the goal of preparing all students with 21st century knowledge and skills.

Universal Pre-K

The West Virginia Universal Pre-K System promotes oral language and pre-literacy skills and reduces the deficit of these skills by early intervention. Currently, 10,673 students (50 percent) are served in all 55 counties from a total estimated population of 21,000. West Virginia is one of five states in the nation with a state legislative mandate for a universal Pre-K system. West Virginia Code requires that all four-year-olds have access to a no-cost pre-kindergarten program by 2012. West Virginia believes a strong Pre-K system will improve high school graduation rates and reduce the number of special education placements and grade-level retentions. A study² funded by the Benedum Foundation provided evidence that for every dollar invested in high-quality public Pre-K education, the state will realize a \$5.20 savings because of fewer special education placements, fewer grade retentions and higher graduation rates for students who participate in Pre-K. Another recent study³ found West Virginia children improved their language and mathematical abilities through attending a preschool program regardless of their ethnic or economic background.

In West Virginia pre-K classrooms, the number of students is limited to no more than 20. All pre-K classrooms not administered by the West Virginia Department of Education (WVDE) or Head Start, but instead contracted with the county school system, must be licensed through the West Virginia Department of Health and Human Resources (WVDHHR) Day Care Licensing.

The hallmark of the West Virginia Pre-K program is its collaborative framework. County plans are developed by a county collaborative team and reviewed by a team that includes three representatives from the WVDE, three from WVDHHR and three from Head Start. This review team evaluates the quality and content of the county plans. All students in WV Pre-K classrooms are registered with the school district in which the classroom is located and generate state funding to the district.

RTI Model

The 2004 reauthorization of the Individuals with Disabilities Education Act (IDEA) provided the option for local school districts to identify a student as learning disabled based on his or her response to scientifically based reading interventions. The WVDE Office of Special Education (now Office of Special Programs) chose to explore the viability of this option as a means of addressing the instructional needs of all struggling students and the identification rate of students with disabilities, which at that time was the fourth highest in the nation at 16%. The state has moved from an 11 school pilot project in 2005-2006 to a timeline for implementation in all schools across elementary, middle, and high schools by July 1, 2011. The [Response to Intervention](#) project has spawned professional development in establishing a

² Padak, N., & Rasinski, T. (2003, April). *Family literacy programs: Who benefits?* Ohio: Kent State University.

³ Barnett, W. S., Lamy, C., & Jung, K. (2005, December). *The effects of state prekindergarten programs on young children's school readiness in five states*. New Jersey: The National Institute for Early Education Research, Rutgers University.

tiered model of instruction and intervention that includes universal screening of all students in reading/literacy, targeted instruction in small groups based on areas of identified need, progress monitoring of students on a 2 to 3 week basis, and continual problem solving among those involved in the student's instruction to determine the continued need for intervention and support. The work of establishing the RTI instructional model is being supported through a state personnel development grant awarded to the WVDE in July 2007 for \$4.8 million for 5 years. These funds are provided by the Federal Office of Special Education Programs and allow for support of literacy from Pre-K through Grade 12.

Because the achievement and acquisition of 21st century knowledge and skills rests on strong literacy skills, the RTI process, as it evolves across grades in the next several years, will continue to focus on improving the important literacy skills. The RTI process is, though, a framework for organizing all instruction and meeting individual learning needs; beginning in August 2008, professional development related to using the model for interventions with students struggling with basic math concepts will begin. Within the RTI process, all students receive high-quality instruction, and struggling students receive additional and increasingly more supportive reading instruction. For a small number of children with specific learning disabilities, the RTI process can lead to earlier identification and provision of special education services. To date, data in schools that have implemented the process with fidelity have shown a substantial reduction in referrals to special education and an increase in the acquisition of the building blocks of reading.

The West Virginia Department of Education will continue to support RTI as a prevention and intervention framework for all students across all grades.

Reading First Expansion

In 2005 West Virginia expanded its [Reading First](#) schools to 42. During the years of federal Reading First funds, the capacity for professional development in teaching reading skills was built through the state reading academy and state reading cadre. In lieu of a state reading academy in summer 2005, the WVDE assisted RESAs and counties in offering this same quality of professional development. In 2006 a Teacher Reading Academy was offered through the Center for Professional Development as a collaborative effort of the WVDE and CPD. In the summer of 2007 this concept was broadened to reach K-3 teacher teams in all elementary schools in West Virginia. In March 2008, approximately 1,000 K-3 teachers attended the 7th Annual Reading Research Symposium, which focused on research-based tools and strategies to help students develop the reading skills necessary for success in the 21st century digital world.

Phonemic Awareness

In 2001, the West Virginia Department of Education (WVDE) initiated the [Phonemic Awareness Project](#). The purpose of this research-based early literacy initiative is to increase the number of students reading on grade level by emphasizing the importance of phonemic awareness as an early teachable reading skill.

Online IEPs

Teachers of students with disabilities must develop, at least annually, an Individualized Education Program (IEP) for each student. The IEP is designed to demonstrate compliance with the Individuals with Disabilities Education Act (IDEA) as well as to document the progress and goals of the student relative to academics and behavior. The WVDE has determined that the IEP can be more effective as an instructional plan if it is easily accessed for viewing and planning and includes data from formative and summative assessments. The WVDE is pursuing the development of an online IEP through the collaborative effort of staff in offices that address improved results for students with disabilities, the statewide student data management system, and the accountability requirements for students served by federal programs. The online IEP will be integrated with the West Virginia Education Information System (WVEIS) and will be free to all schools. It will allow for assessment data stored on WVEIS to be transferred seamlessly to IEPs as they are

developed. This effort to use technology to make a previously tedious process more efficient and informative is expected to have the online IEP available September 2008.

No Label Pilot (Alternate Identification and Reporting) Project

The WVDE, in consultation with the U.S. Department of Education, Office of Special Education Programs, has established a 3-year project (July 2008 to June 2011) in 15 schools in 7 counties in WV to explore and evaluate a model of national merit. The WVDE will be exploring the distinction and quality of services for students who have received increasingly intensive services in a response to intervention (RTI) process and who have been selected through a multidisciplinary evaluation process to receive an entitlement to the services and protection of IDEA but without a designated disability label. These services will be determined by data collected during the RTI process and subsequent to it, as well as within the multidisciplinary evaluation, and will be consistent with those characteristics of specially designed instruction as provided for in the Individuals with Disabilities Education Act (IDEA).

The goals of the project are as follows:

- To establish and reinforce the commonality of instructional and behavioral needs for students
- To transition parents, administrators, and teachers to a model of support that is based on the student's instructional and behavioral needs and not a defined area of disability
- To diminish the burden that a label appears to place on a student emotionally and the associated low expectations
- To contribute to the national dialogue associated with research and practice related to early intervention, Response to Intervention, and appropriate instruction and support for students who demonstrate the need for the protections of IDEA. This research and practice includes the distinction between intensive interventions for the unidentified student and the specially designed instruction that is the right of an entitled student.

West Virginia Model for Positive School Climate

The [West Virginia Model for Positive School Climate](#) is based on the positive behavior model developed from Hazelden's *Respect & Protect: A Practical, Step-by-Step Violence Prevention and Intervention Program for Schools & Communities* and it is aligned with West Virginia Board of Education Policy 4373–Student Code of Conduct. It provides strategies and practical guidance to help all schools create a positive school environment that promotes academic success. Positive School Climate strategies focus on prevention, early intervention, reporting, parent and community involvement, and evaluation.

In partnership with the West Virginia Center for Professional Development (CPD), the WVDE is offering training and support to school teams who wish to implement the West Virginia Model for Positive School Climate. The model aligns with the goals of the federal Title IV Safe and Drug Free School Program.

Cognitive Tutor

Thirty-seven counties in West Virginia have been using the [Cognitive Tutor Program](#) the past 2 years (17 of these counties are new to Cognitive Tutor). It is a total program for Algebra I students. Studies have shown that high-needs populations have much success with this program. Students in the 17 new counties received pre/post tests to evaluate the effectiveness of the program. Counties have received approximately \$9,000 per school from the Benedum Foundation. The yearlong program is set up for 60% of the time in the classroom with teacher instruction and 40% of the time with the computer program. Teachers deliver the lesson and then students have time to practice their skills on the computer, with the cycle recurring approximately weekly. During the 2008-2009 school year, two districts will be piloting

the use of a related product, [Bridge to Algebra](#), for use with 8th grade and/or algebra/geometry preparation. Summers County and Wayne County are using the Bridges to Algebra this fall.

Math/Science Partnerships

The [Math Science Partnership \(MSP\) Program](#) was created under the No Child Left Behind Act of 2001 (NCLB), which reauthorized the Elementary and Secondary Education Act (ESEA). The MSP Program is intended to increase the academic achievement in mathematics and science by enhancing the content knowledge and teaching skills of classroom teachers. Partnerships between high-needs school districts and the science, technology, engineering, and mathematics (STEM) faculty in institutions of higher education are at the core of these improvement efforts. Other partners may include state education agencies; public charter schools; or other public schools, businesses, and nonprofit or for-profit organizations concerned with mathematics and science education.

Currently, the [West Virginia Math Science Partnership Program](#) has nine active partnerships located across the state. There are approximately 360 teachers from 24 counties participating in the partnerships. Ten higher education institutions have also partnered with the nine partnerships.

State Arts Emphasis and Arts Alive!

The fine arts are critical to a well-rounded 21st century education. Part of this emphasis includes ensuring that teachers are aware of how fine arts relate to 21st century knowledge and skills. During the past two train-the-trainer events (WV ARTS TEAMS PROJECTS), professional development strands have been included to explain to the state's art teachers what the 21st century skills are, how they are taught in the West Virginia classrooms, and how the fine arts support the development of those skills.

To promote the incorporation of fine arts into the state's rigorous 21st century curriculum, the WVDE has implemented *Arts Alive! The Best of West Virginia* program. This program has four major goals, including to (1) provide a statewide venue showcasing the "best of the best" in fine arts achievement and exhibitions; (2) support developing and emerging fine arts programs in West Virginia public schools; (3) inspire local initiatives to connect fine arts experiences for all pre-K-12 students to 21st century learning goals; and (4) empower the greater West Virginia learning community as stakeholders in an arts-based learning experience, development, and celebration.

In [May 2007](#), student artists and musicians from across the state were featured at the West Virginia Department of Education's inaugural Arts Alive! event celebrating the fine arts achievement of public schoolchildren. A second annual Arts Alive! showcase was held in [April 2008](#).

The day after the exhibition, arts teachers were provided the opportunity to expand their knowledge about the showcase and learn more about the role the arts play in the 21st century classroom. The session was open to arts teachers in all schools, as well as general elementary school teachers and student teachers in the arts studying at West Virginia institutions of higher education.

Financial Literacy Initiatives

The WVDE is committed to integrating financial literacy expectations throughout K-12 education. The following activities have been designed to support this commitment:

- ✓ Weeklong project on entrepreneurship at the 2007 Teacher Leadership Institute (TLI), in which every teacher was engaged in the establishment of a business and learned about gain, loss, purchasing, sales, income, choice, cost, and opportunity.

- ✓ Heavy emphasis on personal and business finance at the 2006 and 2007 Social Studies Summer Institutes, which included many presenters and workshops conducted by national and local speakers from business, education, government, and professional organizations.
- ✓ State social studies coordinator has conducted several workshops for county teachers in which both financial literacy and global awareness were emphasized, especially how closely the two topics are connected.
- ✓ State social studies coordinator works with the offices of the auditor and the treasurer to ensure that teachers are receiving educational materials and professional development in financial literacy, including investment and debt management.
- ✓ Coordinator works closely with the Federal Reserve of Richmond and the National Council on Economic Education to bring the newest material and instructional strategies regarding all areas of K-12 financial education to the teachers.
- ✓ Coordinator is working with a national committee on policies to ensure financial literacy programs in K-12 education.
- ✓ Presentations/workshops were conducted at both the 2007 Principal's Academies.

Global Awareness Initiatives

Social Studies Summer Institutes in 2007 and 2008 have a global awareness focus on the true understanding of globalization in the 21st century. Topics of these institutes include the following:

- ✓ Language
- ✓ Culture
- ✓ Economic decisions
- ✓ Citizenship
- ✓ Environmental issues
- ✓ Poverty
- ✓ Political issues
- ✓ Immigration
- ✓ Trade
- ✓ Employment

In addition, the Teacher Leadership Institute of 2007 held informative presentations during the day sessions and the evening clinics were hands-on workshops that emphasized the true meaning of global awareness and the impact that each person, country, and region of the world has on the others in all of the ways listed above.

- ✓ Teacher Leadership Institute of 2008 will be conducting a project-based learning weeklong project to immerse teachers in global awareness and economic literacy. The focus will be environmental economics.
- ✓ Presentations/workshops were conducted at both the 2007 Principal's Academies.
- ✓ State social studies coordinator has conducted several workshops for county teachers in which both financial literacy and global awareness were emphasized, especially how closely the two topics are connected.

Model High Schools That Work Sites

In [August 2006](#) 16 high schools were chosen as pilot sites for the [21st Century High Schools That Work](#) program. The schools are receiving targeted technical assistance as they incorporate 21st century skills into an enhanced model of the Southern Regional Education Board's school improvement initiative, [High Schools That Work](#). The goals of the initiative are for the selected high schools to create, implement, and sustain school structures, policies, and practices related to learning culture, structures for supporting student learning, 21st century teaching and learning, literacy and numeracy and across the curriculum, and transitions from middle grades to high school and high school to postsecondary education and careers.

The initiative includes 10 key practices: (1) higher expectations, (2) career/technical studies, (3) academic studies, (4) program of study, (5) structured experiential learning, (6) teachers working together, (7) students actively engaged, (8) guidance, (9) extra help, and (10) keeping score.

Project Lead the Way

The WVDE has implemented a program called [Project Lead the Way](#), which includes a [pre-engineering](#) program designed to encourage students to enter engineering fields, in 16 high schools and career technical centers across the state. The project exposes students to a hands-on, project- and problem-based approach to the development of knowledge and skills in engineering, biomechanics, aeronautics, and other applied math and science arenas. The goal is to demonstrate the real-world relevance of math and science in order to develop students' understanding of how the skills they are learning in the classroom can be applied to everyday life. The national Project Lead the Way Web site describes how "research has shown that schools practicing [APPB](#)-learning experience an increase in student motivation, an increase in cooperative learning skills and higher-order thinking, and an improvement in student achievement." Once the pilot testing is completed, this program will be expanded into other schools depending on student demand.

In school year 2009-2010, West Virginia schools will pilot the [biomedical sciences](#) and agricultural biotechnology programs.

High Schools of Business

In 2006, the WVDE implemented the [High Schools of Business](#) program, which prepares students for entry into university-level colleges of business. This accelerated, project-based curriculum includes rigorous work that encourages student to become involved with real business problems and concepts. HSOB is designed to integrate academic concepts into courses that explore wealth management, leadership, and basic principles of economics, finance, marketing, management, and business strategies.

Careers in Education

West Virginia's Careers in Education program is an innovative approach designed to attract talented young people to the teaching profession through a challenging introduction to 21st century teaching and learning. The program seeks to provide high school students with insight into the nature of teaching, 21st century instructional tools and learning skills, and the critical issues affecting the quality of education in America's schools. The Careers in Education program is proving to be valuable coursework for secondary students who are interested in pursuing education as a career choice. Courses provide students with a broad perspective on the history, current issues, philosophy, and management skills used by a classroom educator. In addition to the Foundations in Education course, West Virginia's Office of Career and Technical Instruction recently added three courses: Human Growth and Development, Exceptionalities and Diversity, and Educational Psychology and Learning. Partnerships with higher education teacher preparation programs are being developed that will lead to advanced standing and college credit for completers of the Careers in Education program.

Closing the Achievement Gap Program

HB4669 identified 39 schools that had high poverty, high minority, and low achievement. Funding was set aside to assign an academic coach to each school as part of a program called Closing the Achievement Gap Professional Development Demonstration Schools. Each coach serves approximately three schools. One of the schools won the 2008 Panasonic School Change Award—one of only six given nationally. Another school was in the top 21 to win the Panasonic award. The academic coaches follow the Do-Study-Act model and have hundreds of hours of professional development. The first 5 years of funding for this program will end in 2009. A [progress report](#) on this program was issued in 2007.

Special Education Monitoring System

During school year 2007-2008 the WVDE Office of Assessment and Accountability implemented a revised special education monitoring system with the purpose of increasing the overall efficiency and effectiveness of the process for improving achievement for students with exceptionalities while ensuring compliance with federal and state regulations.

The goals established for the WVDE monitoring process include the following:

- ✓ To follow the federal monitoring requirements
- ✓ To promote student achievement
- ✓ To provide technical assistance, sanctions, or enforcement to counties determined to “need assistance,” “need intervention,” or need substantial intervention”

Specific components of the monitoring system include the on-site focused monitoring visits, the Web-based self-assessment process, the self-assessment verification visits, desk analysis, and the annual determination process. Revisions to the on-site focus visit included a change from four focus areas (LRE, reading at the third-grade level, suspension rate, and graduation rate) to a single focus on achievement for students with disabilities for the district and for specific schools within the district. Each on-site visit begins with an entrance conference during which the district provides the monitoring team with an overview of the initiatives implemented to improve achievement and performance for students with disabilities and the OAA monitors provide an analysis of state data regarding the performance of the district’s students with disabilities on a variety of performance indicators, such as graduation, drop-out, and attendance rates, and WESTEST proficiency rates. An online Individual Education Program (IEP) as part of the WVEIS is expected to be available during the 2008-2009 school year and will allow greater flexibility for IEP reviews to be conducted off-site; this will provide information to guide discussions around achievement, data-based decision making, and an effective relationship between IEP development and instructional practice.

School visits conducted in the 2007-2008 school year focused on IDEA requirements and on each school’s level of implementation of the K-3 Reading Model, Response to Intervention for identification of students with specific learning disabilities, the co-teaching model, and integration and use of technology for instruction. Recommendations for professional development or staff utilization are included in the monitoring reports.

District self-assessments are submitted online and reviewed by the special education monitors. Data are verified through a comparison with 618 data reports, WESTEST performance data, and SPP/APR data, all of which are available at the WVEIS Web site or the OAA Self-Assessment Web site. Randomly selected districts receive on-site self-assessment verification visits, during which the OAA monitor reviews the data used by the district to determine its status on the self-assessment indicators.

The OAA implemented a new process required by the IDEA 2004 to make an annual determination of each district on its status in implementing the requirements. Districts were rated on both compliance and performance indicators.

NCLB Monitoring System

During school year 2007-2008, the WVDE Office of Assessment and Accountability implemented revised consolidated monitoring of federal programs with the purpose of increasing the overall efficiency and effectiveness of the process for improving achievement for all students, while ensuring compliance with federal and state regulations.

The goals established for the WVDE monitoring process include the following:

- ✓ To ensure compliance with the federal monitoring requirements of the NCLB Title programs
- ✓ To promote student achievement
- ✓ To provide recommendations for professional development, technical assistance, or enforcement of corrective actions

Specific components of the monitoring system include (1) a comprehensive data assessment prepared by the Title I coordinators prior to the on-site visit, (2) an on-site monitoring visit conducted in the Title I schools and the district office to verify data for ensuring compliance, (3) interviews with selected persons, and (4) the exit conference and the monitoring report.

To complete the comprehensive data assessment, reports of AYP status and the accountability measures for the district and schools are reviewed by WVDE staff members prior to each site visit. A summary of the strengths and weaknesses is developed, discussed during the entrance conference, and included in the monitoring report. Items reviewed in the data analysis include the following areas:

- ✓ Academic performance
 - District AYP status
 - Percentage of schools in the district meeting AYP
 - State/district comparison of WESTEST data
 - Trend Assessment Data (Title I schools)
 - Individual school data for Title I schools
- ✓ Other performance indicators
 - Attendance rate
 - Graduation rate
- ✓ Writing assessment

Monitoring teams, consisting of WVDE staff and designated county administrators, conduct periodic on-site reviews in a 3-year cycle. However, monitoring for specific issues and/or programs may be conducted at any time at the discretion of the WVDE. An entrance conference is conducted with the grantee's designated personnel. The purposes of the visit and the planned activities are reviewed during the conference. A summary of the district data analysis is led by the monitoring team leader (WVDE Title I Coordinator). District administrators are asked to participate in a discussion of the district initiatives being implemented for the improvement of student achievement and the coordination of federal funding.

School and/or site visits are conducted as part of the consolidated monitoring process. Verification of the implementation of the tied instructional reading model and individual student progress monitoring at the school and classroom level are reviewed. Recommendations for professional development or staff utilization are included in the monitoring reports.

Interviews with selected persons are conducted, either individually or as a group, for the purpose of verifying and gathering information. Interviews are conducted at the local education agency and/or school and program site. Federally funded academic coaches and/or technology integration specialists are asked to participate in the interviews.

The exit conference provides the LEA an opportunity to clarify information gathered in the interviews and/or the review of documentation. Members of the monitoring team meet with the superintendent and/or designated grantee personnel to discuss the information gathered during the monitoring visit. Preliminary information regarding commendations, recommendations, and findings is discussed during the exit conference.

A written monitoring report is issued to the grantee by the WVDE within forty (40) business days of the exit conference. Each member of the monitoring team submits information pertaining to the programmatic area(s) in which the individual conducted the on-site review. The team leader coordinates the preparation of the final report. This report identifies programmatic commendations, recommendations, findings, and/or areas in need of further professional development and/or technical assistance. Any findings identified in the report include the required corrective action and a date by which such correction action shall be implemented. Technical assistance plans may be developed to assist districts with compliance.

LINKS Program

The Learning Individualized Needs, Knowledge, and Skills ([LINKS](#)) program is a framework for student advisement programs in West Virginia is being piloted during the 2008-2009 school year. LINKS, which is easily adapted to each school's design, culture, and other schoolwide programs, provides a structure for the delivery of specific academic, career, and personal/social content standards to every student in West Virginia. LINKS fulfills the requirements of WVBE Policy 2510, stipulating that every student should have an adult mentor who takes an interest in the student's success and Policy 2315, outlining requirements for teacher/advisor training in curriculum requirements, mentoring and advocating for students, and developmental guidance.

The primary purpose of LINKS advisement programs is to use personal relationships between students and adult advocates to advance student learning and development and encourage student success in a proactive and deliberate manner. The LINKS program specifically seeks to foster relationships between and among students, school staff, parents, the community, businesses, and other organizations to enhance each student's educational experience by connecting rigor, relevance, and relationships. LINKS can help students build dreams, give hope for the future, and connect students with caring adults.

In addition to fostering the interconnection of rigor, relevance, and relationships, LINKS promotes the systemic change that is required in 21st century schools to prepare students for the global workplace. In the changing world of the 21st century, students must be able to solve problems, think critically, communicate effectively, and work in teams. LINKS provides a framework for meeting these challenges by outlining strategies for involving schools, parents, and the business community in a collaborative effort. LINKS program elements—particularly the relationship between student and adult advocate/mentor—seek to deliberately, strategically, and broadly foster students' sense of belonging to school and community, help students develop and enhance life skills, assist them with decision making, and provide them with guidance for career planning in the 21st century. LINKS resources are available online.

6. Technology Integration

The West Virginia Department of Education's (WVDE) Office of Technology and Information Systems (OTIS) has established a [State Educational Technology Plan 2007-2010](#) to support rigorous content and student achievement. It presents a comprehensive state educational technology plan to support the goals, policies, and standards of the West Virginia Board of Education and statutes of the West Virginia Legislature. The document also addresses the federal technology goals and objectives of the No Child Left Behind Act (NCLB), the Schools and Libraries Program of the Universal Service Fund, and the goals and objectives of the Partnership for 21st Century Skills. The plan addresses 91 recommendations developed by four working committees composed of educators, parents, state and federal agencies, and business and community representatives. The recommendations addressed achieving equity of access for all students and educators. Equity for all has been at the core of a major court case in West Virginia to provide a thorough and efficient education. Clearly, West Virginia must have technology integration that is accessible to all to teach and learn for a 21st century education and beyond.

TIS Training—Expansion

The Technology Integration Specialist (TIS) program provides and/or coordinates appropriate professional development activities for all teachers and administrators on a school-level basis. The WVDE has piloted the TIS program through Title II-D technology funds provided by the U.S. Department of Education.

The special education teachers and their co-teaching partners received an equivalent of 40 days (320 hours) of professional development that parallels the professional development received by the Technology Integration Specialist group. Career and technical teachers are in their third annual cohort of TIS-CTEs receiving the same TIS training and applying the tools and skills to the CTE environment in high schools and technical centers across the state. This training is partially funded by the Division of Technical and Adult Education.

During September 2007, more than 90 TISs (special education teachers, career/technical teachers, Title I teachers, etc.) were trained in Universal Design for Learning, an approach to making all products and environments as usable as possible by as many people as possible regardless of age, ability, or situation. In addition to this training, the Appalachia Regional Comprehensive Center at Edvantia created an online Universal Design for Learning blog and book study for teachers. During summer 2008, the TISs intend to conduct trainings with teachers from across the state to help them adopt Universal Design for Learning, which provides a blueprint for creating flexible goals, methods, materials, and assessments that accommodate learner differences.

Intel

Education is critical to every citizen's ability to thrive in the knowledge economy. Today's students must develop such key 21st century skills as familiarity with information and communication technology (ICT), problem solving, critical thinking, and collaboration. They must also excel in mathematics, science, and engineering—the building blocks of technical innovation. Intel currently invests more than \$100 million per year in more than 50 countries to promote education efforts in these arenas. The West Virginia Department of Education and Intel, both members of the Partnership for 21st Century Skills, have begun a professional development plan that will initially [train 500 teachers](#) in the Intel products. The Intel Foundation has awarded the West Virginia Department of Education a [\\$100,000 grant](#) through its Intel Teach Program. The program provides two courses for teachers—Essentials and Thinking with Technology—and a Leadership Forum for administrators.

The Intel Teaching Thinking with Technology course focuses on three free and robust technology tools, plus new methods of learning and assessment. This course helps teachers modify old lesson plans that emphasize facts into new, engaging lesson plans that emphasize thinking and reasoning. Professional development is accomplished via a train-the-trainer model. There are three levels within the Teaching Thinking with Technology course, including Senior Trainer, Master Trainer, and Participant Teacher.

Oracle Think.com

In August 2007, WVDE and Oracle formed a partnership designed to help teachers better prepare students for the 21st century. It gives educators the opportunity to use online resources and have access to protected intellectual property.

Think.com, a protected online learning community, is used by 300,000 students and teachers in 48 countries worldwide. It has been embraced by educators as an effective way to engage students while teaching fundamental skills in project management, research, teamwork, Web publishing, collaboration, and writing.

Thinkfinity

The West Virginia Department of Education has partnered with the Verizon Foundation to roll out [Thinkfinity](#), which provides free 21st century learning resources for educators, parents, students, and after-school program providers. Thinkfinity offers more than 4,000 lesson plans, which will soon be aligned to the new West Virginia Content Standards and Objectives, and more than 55,000 student interactivities, movies, Web sites, and other educational content provided by national organizations. The content is organized into several subject areas, including arts integration, economics, humanities, mathematics, language arts, science, geography, American history, and literacy.

To provide 21st century learning resources to ultimately improve student achievement, the West Virginia Thinkfinity professional development goals include having one National Cadre member in the state; establishing Certified Teachers in each RESA area, the Center for Professional Development, and the WVDE; establishing one Field Trainer in each school; and providing professional development to 20,000 educators, parents, administrators, and community leaders.

West Virginia Virtual School

The [West Virginia Virtual School](#) was created by legislation on July 1, 2000, to offer high-quality educational courses to students via Internet technology. State Board Policy 2450 was expanded October 18, 2000, to establish requirements for distance, online, and technology-delivered learning programs. The reasons for requesting Virtual School courses can include expanding the range of courses and opportunities for students, filling the need for qualified teachers, providing low-incidence courses where enrollment numbers do not justify assigning a teacher, or resolving scheduling conflicts that prevent students from taking a course when it is offered. The courses that appear in the [course catalog](#) have been reviewed by a team of content specialists. The Southern Regional Education Board's [Standards for Quality Online Courses](#) and [Standards for Quality Online Teaching](#) are used as benchmarks for course approval. The courses align with the corresponding West Virginia Content Standards and Objectives and all courses provide online instructors who guide students through the learning process.

Students enrolled in courses through the West Virginia Virtual School have the opportunity to learn and use a variety of 21st century learning skills and technology tools, including communications via the Web, e-mail and instant messaging, information access and evaluation, self-direction, time management, critical thinking, and problem solving.

21st Century Tools for 21st Century Schools Technology Initiative

Part of ensuring that West Virginia students receive a 21st century education is providing the necessary resources to meet the needs of 21st century learners. To acquire 21st century skills, students and teachers must have access to appropriate technology tools and resources so that they can access information; solve problems; communicate clearly; make informed decisions; acquire new knowledge; and construct products, reports, and systems.

The 21st Century Tools for 21st Century Schools Technology Initiative, codified by the West Virginia Legislature in the 2007 session, provides for 21st century instruction and learning in all West Virginia public schools. By providing a standards-based technology infrastructure supported by quality professional development for educators, the initiative helps students develop proficiency in 21st century content, technology tools, and learning skills needed to succeed and prosper in a multifaceted, technology-driven world. Twenty-first century technology and software resources are provided to students in Grades pre-kindergarten through 12 to help meet the goal that West Virginia high school graduates will be prepared fully for college, other postsecondary education, or gainful employment. Teachers receive professional development in aligning technology resources and assessments with standards and curriculum to help students attain proficiency in academic content and 21st century skills.

The Tools for Schools Initiative is a combined program previously known as the Basic Skills/Computer Education (BS/CE) Program for K-6 students and the SUCCESS (Student Utilization of Computers in Curriculum for the Enhancement of Scholastic Skills) Initiative for students in Grades 7 through 12. Both programs had been studied and documented by researchers as providing a positive impact on student achievement, student learning capacity, and student development of specific skills. Design of the 21st Century Tools for 21st Century Schools Initiative incorporated the success factors delineated in these research projects, as well as focusing on providing the necessary resources for 21st century learners to learn relevant and rigorous academic content and to acquire information and communication skills, thinking and problem solving skills, interpersonal and self-directional learning skills, and proficiency.

Writing Roadmap 2.0 Formative Assessment

Beginning in school year 2008-2009, WVDE will provide schools with formative writing assessments that offer students unlimited opportunities to improve their writing skills and better prepare for life in the 21st century. All student responses are electronically scored and returned to students for review and to teachers as evidence of student performance.

Based on the results of a 2006-2007 detailed study, West Virginia students/schools that participated in online writing practice sessions increased their performance on the 2007 Online Writing Assessment. Subsequently, the West Virginia Department of Education purchased Writing Roadmap 2.0 for all students in Grades 3-11 for the 2008-2009 school years. Writing is a crucial skill for success in the 21st century world and a necessary skill in achieving college readiness. Additionally, research indicates students are more engaged and write longer essays online than they do using paper and pencil.

The goals of Writing Roadmap 2 are as follows:

- ✓ To strengthen student writing skills
- ✓ To encourage the writing process on all grade levels
- ✓ To establish a platform where students can be guided through the writing process while writing essays online
- ✓ To better prepare students for state and future national online writing tests, (e.g., NAEP online writing in 2011)
- ✓ To provide a program that gives instant feedback on student writing in the analytic writing dimensions:
 - Ideas and Content
 - Organization
 - Voice
 - Word Choice
 - Conventions

- Fluency
- ✓ To provide instructional hints, including grammar/spell-checking/word choice
- ✓ To provide teachers with a program where they can create an unlimited number of their own prompts to be automatically graded
- ✓ To diminish the burden of teacher time spent reading and scoring essays
- ✓ To provide teachers with detailed reports on student and group proficiency and writing gains

The following link will provide student and teacher demonstrations of the Writing Roadmap 2.0: <http://www.ctb.com>. At this site, go to Online and Software and Solutions and then to Writing Roadmap 2.0, then click additional information and product tab.

Technology Integration Certification

The Office of Professional Preparation created a credential for the Technology Integration Specialists (TISs). The requirements to acquire and renew the credential, which is added on to a teaching certificate, include completion of 40 days (320 clock hours) of professional development credit related to technology integration programs offered or approved by the WVDE. The TIS is a type of academic coach, specifically tied to providing professional development and technical assistance to teachers to integrate technology into the curriculum. The TISs model instruction for teachers, support instruction for teachers, provide resources, and assess weaknesses of the school.

E-Learning for Educators Online Professional Development

The E-Learning for Educators Initiative is funded by a U.S. Department of Education Ready to Teach Grant involving eight states (AL, DE, KY, MS, MO, NH, PA, and WV). The central goal of the initiative is to establish an effective and sustainable model of online professional development that will help address statewide teacher quality needs and have an impact on student achievement. Since June 2006, more than 3,000 West Virginia educators have completed E-Learning professional development courses.

The [West Virginia E-Learning for Educators](#) program will make available more than 50 [e-learning workshops](#), each of which is standards-based and comprises seven sessions requiring approximately 45 hours of work time by the participating educators. These workshops address a wide variety of topics across PK-12 grade levels and subject areas, including universally applicable content such as Finding the Best Educational Resources on the Web and Differentiating Instruction to Accommodate Learning Styles. Also included is content for specific grades and subject areas, such as Helping Struggling Readers Improve Comprehension and Using Technology in the Elementary Math Class.

The WVDE Online Professional Development Catalog

WVDE professional Development opportunities are accessible to all West Virginia educators. The [professional development calendar](#) features the following information: description, location, date, cost, provider, available course credit, evaluation, 21st century.

7. 21st Century Balanced Assessment

The WVDE is increasing the rigor of its student assessment program to measure a full range of knowledge and skills defined in the content standards by incorporating multiple approaches to student accountability, improving record keeping on crucial learning outcomes, and developing a school certification in 21st century learning. Assessments are aligned to the content, rigor and context, and learning tools of the 21st century, as defined by P21. WVDE has designed a comprehensive balanced assessment system that goes beyond summative assessment as a tool to determine and redirect student performance. The comprehensive balanced assessment system continues to develop summative assessment, but now includes benchmark assessment and classroom assessment to redirect student performance throughout the year.

WESTEST 2

The West Virginia Educational Standards Test, or [WESTEST](#), is a criterion-referenced test, given in Grades 3-8 and 10, that measures student mastery of the 21st Century West Virginia Content Standards and Objectives (CSOs) by content area and grade level. In 2007, the WVDE hired CTB/McGraw-Hill to develop the next iteration of the WESTEST, called WESTEST 2, which is aligned with the revised CSOs that include 21st century content, rigor, context, and learning skills. The purpose of WESTEST 2 is to measure student mastery of the CSOs and thinking skills, including problem solving, creative thinking, and information and communications skills. The assessment results are used to redirect instruction and assist in school improvement efforts in reading/language arts, mathematics, science, and social studies. Additionally, WESTEST results are used to calculate accountability to meet the NCLB accountability requirements in Grades 3-8 and 10 in reading/language arts and mathematics. WESTEST 2 will be field-tested in the fall of 2008 and become the official state standardized test in the spring of 2009.

Predictive and College Readiness Assessments

Students in Grades 8 and 10 will take ACT predictive tests (EXPLORE in Grade 8 and PLAN in Grade 10) in the areas of English, mathematics, reading, science, and social studies to determine college readiness and predict performance on the ACT college admission test. Results are used to improve student college readiness.

Grade 11 students will be administered a WESTEST 2 to determine college readiness in mathematics. The assessment will be designed around the college readiness consensus standards developed by mathematics educators from higher education, high schools, and the WVDE. ACT and WVDE will determine a college readiness benchmark score for WESTEST 2. Eleventh-grade students who score above that level will be considered college ready, while those who fall below the college readiness score will be provided coursework to build their college readiness skills. In Grade 12, these students will be provided a second opportunity to take WESTEST 2 to meet the college readiness benchmark score. Development of WESTEST 2 began in early 2007.

Writing Assessment

The [West Virginia Writing Assessment](#), or WESTEST 2 Online Writing Assessment, is a criterion-referenced test of the West Virginia Writing Standard and the related objectives, which are part of the West Virginia CSOs by grade level. The purpose of this assessment, which includes versions for Grades 3 through 11, is to promote the improvement of communication and writing skills of students in all grades by assessing narrative, descriptive, persuasive, and informative prompts. The writing sample is assessed using a modified holistic scoring process that includes analytic scoring around a six-point rubric, which includes the following analytics: organization, development, sentence structure, word choice, and

mechanics. The Writing Assessment results will be used to make instructional decisions and assist in school improvement efforts in reading and writing. Additionally, the writing results will be used to calculate school, district, and state accountability status on the NCLB accountability test requirements in Grades 3 through 8 and one grade level in high schools for reading/language arts and mathematics. The development of the online assessment began in 2006, was piloted in the fall of 2007, and field-tested in the spring of 2008.

Benchmark Assessment Support

[Acuity](#) is a learning-based classroom assessment program developed by CTB/McGraw-Hill to measure student progress in math and reading in Grades 3 through 8. The system includes Web- and paper-based assessments aligned to West Virginia's CSOs and the Learning Targets of Knowledge, Reasoning, Performance, and Product. Instructionally targeted assessment/classroom assessment provides teachers with more frequent instructional feedback on student performance to regularly redirect instruction throughout the school year. The Acuity product includes (1) a delivery platform, (2) item banks, (3) diagnostic assessments, (4) reports, and (5) personalized instructional exercises. Beginning in November of 2008, schools across West Virginia will have access to the Acuity platform, and school districts will be provided with professional development to develop instructionally targeted assessments for use in classrooms across the state. Acuity will also serve as the platform for the benchmark assessment testlets for the four core subject areas in Grades 3 through 11. These benchmark assessments may be modified by each school district based on individual maps.

Formative Assessment—Classroom Assessment *for* Learning Initiative

The Classroom Assessment for Learning (CAFL) Initiative, under the direction of the Superintendent's Center for 21st Century Schools, will guide counties and schools in West Virginia to understand the necessity of balancing 21st century assessment practices to include student-involved classroom assessment. This initiative is a key component of West Virginia's systemic approach to developing 21st century schools and school systems. Goals of the initiative include the following:

- ✓ Building a foundation of assessment literacy at all levels of our system as we continue on our journey of transforming teaching and learning in the 21st century
- ✓ Designing and implementing a West Virginia model for promoting and supporting classroom assessment *for* learning practices
- ✓ Developing, supporting, and sustaining an intentional and systematic process to be used by teachers and students *during* instruction that provides feedback to adjust ongoing teaching and learning so as to improve students' achievement of intended instructional learning targets

The initiative has also included the formation of a 50-member stakeholder group and expert teams who are proficient in training on each of the major components of the CAFL model. In addition, 2 days of required professional development on the principles of classroom assessment for learning were provided to all WVDE staff and 19 Higher Education representatives.

Changing classroom assessment practice requires a commitment on the part of administrators and classroom teachers, who need to understand the concepts, to act on what they see as a result, and to share their learning with colleagues. The professional learning community (PLC) process to professional development will be used and sustained throughout this initiative to engage participants as they become assessment literate. Training modules on the components of classroom assessment for learning will be developed by statewide "core teams" and used to support districts and schools as they engage in assessment literacy training. To promote deeper understanding and build common vocabulary, selected WVDE staff members, institutions of higher education, and RESA staff engaged in professional development on assessment literacy in early 2008.

K-3 Informal Math Assessment

The goal of the West Virginia K-3 Informal Mathematics Assessment (IMA) is to enable teachers and schools to stimulate, nurture, and monitor students' progress and knowledge in three cognitive mathematical categories: Conceptual Understanding, Procedural Skills, and Problem Solving. The tasks have been revised to reflect the West Virginia 21st Century Content Standards and Objectives. These tasks support Classroom Assessment for Learning, as they are intended to provide the teacher with information on student understanding and learning of mathematical concepts. The IMA supports standards-based assessment and should drive standards-based instruction in the classroom.

techSteps

The [techSteps](#) resource allows teachers to plan, teach, and assess K-8 technology literacy in an integrated, 21st century context. techSteps includes

- ✓ the K-8 technology literacy framework built on the [National Educational Technology Standards](#) (NETS*S) and the work of P21
- ✓ the K-8 technology literacy curriculum, which includes electronic activity books for each grade level
- ✓ online and off-line assessment and reporting options, including assessment rubrics for each learning activity that are tied to the technology literacy standards

The WVDE piloted techSteps in 10 school districts during school year 2007-2008 and will implement the program statewide during school year 2008-2009.

FITNESSGRAM®

The FITNESSGRAM performance-based fitness test is administered to all students in Grades 4 through 8 and high school through their required physical education courses. Tested and reported categories include aerobic capacity, body composition, curl-up, upper body strength, flexibility, and trunk lift. Physical education teachers report grade-level FITNESSGRAM results through the West Virginia Education Information System (WVEIS) Tenth Month Report. For each test category, teachers report the number of students tested and the number of students performing in the "healthy zone" as defined by the FITNESSGRAM. School and county-level data are to be used to drive physical education program improvement. Individual student data are to be used to assist students in development of individualized fitness plans.

Health Education Assessment Project (HEAP)

The Health Education Assessment Project (HEAP) fulfills the statewide assessment of health education that is required by State Code §18-2-9b. The HEAP is administered online to all 6th-grade, 8th-grade, and high school students as part of their required health education courses. Assessment categories and questions were taken from the State Collaborative on Assessment and Student Standards Health Education Assessment Project (SCASS-HEAP). Assessment items are selected based on the extent to which they align with the West Virginia Grades 5-12 Health Education Content Standards and Objectives (CSOs) in the health education topic areas of nutrition, physical activity, growth and development, alcohol and other drugs, and tobacco. Injury Prevention questions are included for Grade 6 and Mental Health questions are included for Grade 8 and High School. Results are provided at the district, school, and classroom levels in order to make program improvements that increase student health literacy levels.

Golden Horseshoe Test

The Golden Horseshoe Test measures student knowledge of West Virginia civics, economics, geography, history, and current events. It is not a mandated test but rather a student competition. The WVDE partners with the [West Virginia](#)

[Cultural Center](#), which embeds all the test questions on its Web site under its History and Archives tab. The site includes a Question of the Day on West Virginia history, and these questions are included as items on the exam. The exam was a fact-based multiple-choice test. To bring it into the 21st century, the WVDE and West Virginia Cultural Center have instilled more critical thinking and problem solving into the questions, such as having students analyze information from multiple data sources to come to conclusions about the answer to a question. In addition, the exam now places more emphasis than in the past on current events and economic development in the state, making these more relevant and current. The test is now an online exam. In the past, when it was a paper-based test, the districts would use a qualifying exam to limit the number of students who took the exam to a total of approximately 2,200. Now every 8th-grade student in the state receives a password and can choose to take the test. There is also an online practice test that students can take multiple times, with different combinations of items generated for each practice exam.

Career/Technical Assessments

Extensive testing is done with all students who participate in career/technical courses and concentrations. Online standards-based end-of-course testing is done in all core CTE courses. ACT WorkKeys assessments in reading, mathematics, and locating information are required of all CTE completers. The focus of the CTE assessment program is to assure that students master the content standards and objectives and exit the program with the academic and 21st century skills needed for success in postsecondary education or the modern workplace.

NAEP Assessment Support

The West Virginia Department of Education has established a NAEP training plan that will target schools that are to be included in the NAEP sample. The Department will work with local school district staff to include principals and teachers to better inform them of the level of instructional rigor needed to perform well on NAEP assessments in Grades 4 and 8. The WVDE has a listserv of principals in identified schools through which regular communication about the assessments is provided. The WVDE has a professional development plan that includes a variety of training options for superintendents, principals, and teachers in targeted districts and schools. Coordinators at every identified school site promote the instructional rigor associated with NAEP assessments.

Additionally, West Virginia Department of Education was selected to be a part of a 12th-grade pilot assessment. This new NAEP assessment will be used to determine the skills that graduating seniors have obtained as they depart the K-12 educational system.

Trend Data Assessment Section on NCLB Secure Site

The WVDE maintains assessment data by school and by class (grade), and these are available to the public as long as cell sizes are greater than nine students or 5% of students, and less than 95% of students. The publicly available [interactive site](#) provides 4 years of data—percent proficient by school, difference between percent proficient in the current year versus the prior year. Users can disaggregate by grade level, subject area, and subgroup category (students with disabilities, African American, and low socioeconomic status). Users also are able to combine types of schools within a county, such as all elementary schools or all Title I schools. A user can follow a general cohort of students by examining data by grade across multiple years.

In addition to the information on the public site, the secure site includes all students, not just the cells that contain 10 or more. Principals can see test results for individual students. The assistant superintendents at the WVDE also are able to look at individual student scores across time to analyze progress by comparing scale scores in the first year to predicted scale scores in following years.

Evaluation Design for Tracking and Assessing Progress in Attaining 21st Century Critical Element Implementation

West Virginia's initiative includes formative (process) measures of progress in every step. The WVDE is committed to ongoing systematic evaluation of progress toward 21st century learning goals. Leadership teams and objective outside evaluators are developing rubrics of progress for each critical element in the implementation plan. The rubrics will define developmental levels of implementation for each element. Key stakeholders, such as state and local education leaders, will review the rubrics regularly and determine at what level the system is operating and what the next steps need to be. Hence, the rubrics will be used for diagnosis of needed changes or next steps in addition to serving as assessments of current status. Feedback to relevant levels of the system regarding the current status and next steps will be an integral part of the initiative.

8. Comprehensive Professional Development

WVDE provides a wide variety of professional development opportunities for educators across our state. Professional development is delivered in such a way that participants are engaged with the learning, not just passively listening. Twenty-first century professional development focuses on the integration of 21st century skills, tools, and teaching strategies to promote student learning. Educators learn how to form professional learning communities where they can share ideas, solve problems, and discuss the latest research about effective instruction. Training is offered for superintendents, principals, county leadership teams, and teachers. Higher education representatives also are involved to help create a seamless transition between preservice teachers and those working in the classrooms. The WVDE professional development plan includes 9 days of training for WVDE staff. The purpose is to make sure all stakeholders have a common language and understanding of what is meant by the 21st Century Learning Initiative.

Professional Development for WVDE Staff and IHEs

From January through March 2007, 200 WVDE staff, Center for Professional Development staff, regional education service agency staff, and teams from the 19 institutions of higher education received 9 days of professional development. From January through March 2007, the goal of the professional development series was to establish a common vision of the 21st Century Learning Initiative. At the end of the training series, work groups and IHEs presented their plans to align their work with the statewide initiative.

West Virginia School Leadership Team Conferences (Superintendent Leadership Institute)

A total of 51 superintendents and representatives from 7 RESAs, OEPA, OIEP, and schools for the deaf and blind attended the Superintendents Leadership Institute. The Superintendents Leadership Institute is to continue building a knowledge base of the influence district superintendents have on student learning, to introduce to the superintendents the Mid-continent Research for Education and Learning (McREL) research conducted by Robert Marzano and Tim Walters on School District Leadership that Works: The Effect of Superintendent Leadership on Student Achievement. It also generates discussion about what actions district superintendents take to bring about improved student learning.

Launching the 21st Century Learning Initiative requires highly skilled, knowledgeable, and deeply committed leaders at the district level. The West Virginia School System Leadership Team Conference brings together a 5 to 10 member leadership team from each of the state's 55 school districts for two 3-day conferences annually. There are approximately 500 to 600 attendees at each conference. The conferences have taken this group of leaders through professional development, focusing them on understanding why there is an urgency for change. This professional development series has focused on several topics over time, including curriculum, instruction, assessment, and student/parent/family support and how they are different in the 21st century. Major issues for the participants to consider are why 21st century teaching and learning is needed, and how to change the school systems to address the issues of 21st century instruction.

West Virginia Institute for 21st Century Leadership (Principal Institute)

The West Virginia Institute for 21st Century Leadership is a key component of West Virginia's systemic approach to developing 21st century schools. Rarely does an organization improve without knowledgeable, capable, and visionary leadership. There are no simple recipes for creating 21st century schools. However, there are significant "road markers" that guide the way. Thus, the Institute provides in-depth professional development and support for West Virginia's outstanding school leaders. This yearlong experience promises to expand the principals' understanding of the

Frameworks for High Performing 21st Century Schools and to develop the leadership skills necessary to transform schools to engaging and rigorous 21st century learning environments for both students and staff.

The West Virginia Institute is a yearlong program for practicing principals. The inaugural class of the Institute began in July of 2006, when initial membership was 75 principals. Currently, 200 principals are served each year in the Institute. The 5-day July residential session is coupled to two follow-up residential sessions of 3 days each in November and April. During the three residential experiences, principals have the opportunity to examine the urgency and rationale for changing the schools of today into 21st century schools. Using the Frameworks for High Performing Schools and High Performing Classrooms for each programmatic level, the principals begin to see the components of what the 21st century school and classroom look like. These understandings are further supported through keynote speakers and other activities to fully develop their knowledge base of what we must do to prepare our students for the challenging world of this century. Programmatic leaders and critical friends assigned to each programmatic group helped to fully develop and expand the knowledge base of the principals through their experience and understanding. The November residential experience has as its focus leadership characteristics needed to transform organizations and to lead change. The April residential experience focuses on the systemic continuous improvement process and the components of that process that can be employed in schools.

At the conclusion of the Institute experience, principals complete their e-portfolios, which serve as artifacts of their experience and can be used to document their work in achieving the goals mutually agreed on with their county-level supervisors to meet the evaluation requirements. (For more information on agendas, presenters, or the e-portfolio, see <http://wvde.state.wv.us/principalsinstitute> and click on the 2007-2008 icon.) Between residential experiences, the principals are involved with a focused research topic of their choosing. This online discussion forum and Wiki construction are facilitated by West Virginia Department of Education staff members and by the staff of the Superintendent's Center for 21st Century Schools, as well as critical friends from higher education and other venues. In the course of the Institute year, principals will complete two areas of focused research topic investigations.

The area of focus discussion forum and Wiki creation expand the personalization opportunities and learning of the Institute participants and connects professional development to the required principal evaluation process of Policy 5310. This process should enhance collegiality among principals and create an online professional learning community using 21st century tools.

Teacher Leadership Institute

The Teacher Leadership Institute (TLI) is an intensive, weeklong professional development experience that is designed to assist districts in building the capacity to move forward with 21st century instruction. The first TLIs were held in Charleston and Morgantown in [June and July 2007](#). Superintendents were allotted slots based on the size of their districts and selected teams of teachers who had exhibited leadership ability. The focus of each week was getting to know digital learners so that teachers could design effective instruction using the backward design process. Participants arrived on Sunday afternoon, received their laptop computers containing everything they would need for the week, their reading assignment (*Teaching for Tomorrow*), and attended an opening session. On Monday through Friday, teachers participated in training by content or programmatic level. Evening sessions offered a choice of extended learning opportunities where participants could learn more about wikis, blogs, lesson design, and hands-on strategies. Teachers also met with their district team to develop an action plan for sharing their new knowledge with other teachers in the district. During this week teachers were practicing their learning by beginning work on a standards-based unit in their content area. The final units were due in October. Quarterly webinars were held to deliver follow-up training and stories about county successes.

The focus of the 2008 TLI is project-based learning. Participants will receive the PBL Handbook from the Buck Institute and their laptops with all materials imaged. They will design a project-based learning experience for their students. Teachers will sign up for 5 of the 55 clinic sessions on such topics as podcasting, GIS software, digital cameras,

standards-based units, electronic portfolios, kit-based science, and Challenger e-missions. Monthly webinars are planned to deliver follow-up training.

TEACH 21

The [TEACH 21 Web site](#) was designed by teachers to assist colleagues in planning and delivering effective 21st century instruction in West Virginia classrooms. It enables educators to quickly access 21st Century Content Standards, Learning Skills, and Technology Tools for West Virginia Schools, as well as other resources that exemplify rigorous and relevant instructional design and delivery. Information is easily accessible by teachers, administrators, parents, and students. Standards-Based Units and Instructional Guides model the integration of content, learning skills and technology standards, research-based instructional strategies, differentiated instruction and rich classroom assessments, including a culminating performance, product, or project with an accompanying rubric.

Health and Physical Education Leadership Academy

The goal of the West Virginia Health and Physical Education Leadership Academy is to build the capacity of health and physical educators to improve school health and wellness initiatives, with a specific focus on the instructional programs of health and physical education. The Academy is a series of sustained professional development activities that promote individual professional growth in the areas of pedagogy, leadership, advocacy, grant writing, and technology, while at the same time promoting a professional network of support. A statewide Academy was held in 2005-06 and regional Academies have been held in subsequent years (RESA V in 2006-07; RESAs I, III, VI, and VII in 2007-08; RESAs II, IV and VIII will occur in 2008-09).

Online Courses in Communicable Disease Control, Medication Administration, and School Nurse Orientation

Required courses for school nurses and other school staff have been developed and made available through the WV Learns platform to improve accessibility to all school staff and to decrease the costs associated with statewide professional development.

Model Lessons/Videos

[The Teach 21 Model classroom project](#), under the direction of the West Virginia Department of Education Office of Instruction, is focused on using the Teach 21 site to provide all West Virginia teachers access to online video clips that demonstrate quality student engagement within a 21st century context. Each video clip is accompanied by a lesson plan and commentary from the featured teacher that targets the various strategies implemented as well as the integration of identified 21st century skills. This project will capture the student and teacher work across all content areas in 36 K-12 classrooms across the state. It is not enough to tell our teachers what they should be doing; we must provide them with examples that allow them to see what rigor, relevance, and relationships look like in West Virginia classrooms. This project is about state teachers working with their local districts and the WVDE to build capacity for quality 21st century learning across the state.

Participating teachers took part in the 2007 Teacher Leadership Institute and submitted applications to be selected as model classroom teachers. As part of the process, WVDE committed to providing each teacher with a \$5,000 grant to purchase technology or materials they identified as necessary for creating the 21st century classroom described in their application. The teachers agreed to allow WVDE to film in their classrooms. The WVDE staff met with the 36 teachers to

assist them in purchasing their requested items and to inform them of the filming process. The teachers were provided with a lesson plan template based on the backward design process and shared the three essential questions for preparing the script for filming: *What message do I want to convey to the viewer of the video? What type of student engagement do I want to show? What 21st century learning skills and/or tools will be featured?* The WVDE also engaged the participants in a discussion related to quality filming (background noise, orientation of the room, lighting, preparation of students, etc.). As of June 2008, the first video clips are available and have been used in several professional development sessions. They have been very effective in helping teachers to see what 21st century instruction looks like. The WVDE will continue to video during the first semester of school year 2008-2009.

Professional Modules on 21st Century Learning

The WVDE has prepared professional development modules on 21st century learning for educators across the state. There are two versions of the professional development, including a 1-hour and 1-day version. The purpose of the [1-hour module](#) is to gain an understanding of 21st century learning and to think about what needs to be accomplished in West Virginia. The module provides an overview of 21st century skills, the urgency for implementing 21st century learning, video segments of classrooms, and probing questions about West Virginia status. Materials, resources, Web links and other videos are included to help a presenter customize the professional development for various audiences, which could include educators, parents, community, business leaders, and other stakeholders.

The purpose of the [1-day module](#) is to provide face-to-face professional development to school staff. The 1-day module is designed to be presented in three 2-hour sessions in numerical order. The module can be delivered in a day. However, Teacher Leadership Institute county teams can present the sessions on separate days to foster small learning communities, limit the total time spent on professional development in a given day, or spend more time on certain sessions depending on the audience and where they are in their learning. The three sessions address West Virginia 21st century content technology tools, balanced assessment, and instructional design.

County Mathematics Leadership Teams

The goal of the [County Mathematics Leadership Team](#) initiative is to build district-wide leadership in mathematics from Kindergarten through Grade 12 in order to improve instruction in mathematical computation, application, reasoning, engagement, and understanding. District teams consist of five members, including an administrator and a representative from each of the following grade spans: K-2, 3-5, 6-8, and 9-12. The teams also have conducted the Mathematics Program Improvement Reviews and will receive Quantiles training in the fall of 2008.

NSTA Online Middle School Science Training

The core of the SciPack professional development will be provided through two online [NSTA](#) courses that take about 10 hours each. Content areas that teachers may choose from include lessons in physical science, life science, and earth science. Computer simulations are used to manipulate variables as participants replicate lab activities and make conclusions. Appropriate pedagogy instruction is included with each course. Periodic assessments that provide feedback are embedded in each course and final assessments are used to determine proficiency. A 1-day training is required for the targeted middle school teachers to learn how to access the online coursework. When participants successfully complete the two SciPack courses and assessments before the end of the fall semester grading period, they will earn graduate credit from Marshall University.

Social Studies Summer Institute

The purpose of the summer institute is to provide social studies teachers with resources and instructional strategies that will support their efforts as they provide their students with a true understanding of the past and an appreciation of their heritage as West Virginians. In [July 2006](#), the Social Studies Summer Institute in civics, economics, entrepreneurship, geography, and history was held at Charleston Civic Center (the focus was mainly on civics, entrepreneurship, and economics). In [July 2007](#), the Second Social Studies Summer Institute was held at the Charleston Civic Center, and its focus was to provide teachers with resources and instructional strategies to help students take up the challenges of globalization; become economically judicious; and engage in local, state, national, and world civic experiences. The third institute, which will be held in June 2008, will focus on how to engage the digital learner in social studies content, particularly history, and on economics and civics. There will be sessions on writing in social studies, strategies to help students understand what they are reading and convey information in writing, and project-based learning. Social studies teachers, business teachers, administrators, members of the business community, and civic leaders are invited to the conference.

Career and Technical Education Career Cluster Institutes

In 2008, summer institutes will be presented by WVDE program leaders in each of the six career cluster areas. As a result, more than 600 career and technical teachers will learn to use their new 21st Century CSOs, gain new knowledge about national industry standards, and share 21st century instructional techniques. Instructional technology will be demonstrated and techniques to better integrate 21st century content and context will be uncovered.

Instructional Technology in Career and Technical Education Conference

“Teaching 21st Century Kids in Career Tech Classrooms” is the theme of the latest addition to the professional development programs offered by the Office of Career and Technical Instruction. More than 120 CTE instructors, including three cohorts of Technology Integration Specialists in CTE, will spend 3 days learning about 21st century instructional tools and techniques. Two-hour and 4-hour clinics will explore 17 topics, including these:

- ✓ digital portfolios
- ✓ wikis and blogs
- ✓ cell phones as teaching tools
- ✓ clickers in the classroom
- ✓ educational gaming
- ✓ podcasting
- ✓ GIS and GPS

Special Education Academy

The first [Special Education Teacher Leadership Academy](#) is being created for county teams and will include a total of 250 special education teachers and special education administrators. WVDE’s intention is to build a strong corps of special education teacher leaders who understand (1) that every student must experience rigorous 21st century instruction supported by the 21st century tools that are now fundamental to our culture and (2) that the strength of the link between instruction and assessment contributes to the measured progress for every student.

The Academy is designed in conjunction with WVDE’s Teacher Leadership Institute (TLI) but will encompass unique instructional challenges that face teachers of students with IEPs. The goal is to have the TLI and The Academy

complement each other and increase the capacity of schools to provide 21st century instruction with 21st century tools to the broadest range of students.

As a result of The Academy, special education teacher leaders will be able to do the following:

- ✓ apply 21st Century CSOs to their instructional planning and delivery
- ✓ teach 21st Century content using 21st century tools
- ✓ demonstrate use of benchmark and classroom assessments to determine student instructional needs
- ✓ transition to a paradigm that focuses on students' needs and not their areas of disability
- ✓ articulate their roles and responsibilities in each tier of a tiered instruction process
- ✓ use problem-solving skills to analyze data and apply it for instructional change
- ✓ develop an understanding of their responsibilities as teacher leaders in their schools
- ✓ develop a county plan to engage all special education teachers in professional development around 21st century teaching and learning throughout school year 2008-2009

Digital Resources for 21st Century Learning Administration

In September 2006 the WVDE and partners unveiled the online [21st Century Digital Resource](#) to support local district and school leaders as they develop 21st century schools. The Learning Community Digital Resource provides leaders with reflection questions and responses to three big ideas: *The Changing World*, *21st Century Learning*, and *Creating 21st Century Schools*. In June of 2008 a new collaborative initiative began to rename and revise the previous resource through the creation of the 21st Century Leadership Resource. The focus of this new tool is to provide relevant and engaging 21st century resources to aspiring principals, new principals, and existing principals. Content is being created by West Virginia leaders who will model the research-based elements of the 21st Century Leadership Institute utilizing 21st century leadership tools. The 21st Century Digital Resource will become a leadership training tool for K-12 leaders and a resource for the institutions of higher education in our state.

E-Learning Grant

The [e-Learning for Educators](#) initiative is the latest effort from the West Virginia Department of Education and West Virginia Public Broadcasting, with a grant from the U.S. Department of Education. This initiative provides West Virginia educators with quality professional development opportunities designed to address content knowledge and the skills required to improve student performance. The e-Learning for Educators initiative aims to help bridge the barriers of time, distance, and inequity for all West Virginia teachers by providing access to Web-based professional development opportunities. Educators in West Virginia have the opportunity to continue learning and collaborating while addressing the needs of West Virginia students.

Via the "West Virginia Learns" gateway, WVDE is creating and centralizing many learning options and resources for students, parents, teachers, school personnel, and WVDE staff. As educators begin to realize the potential for these resources, a wide variety of content will be developed and disseminated to appropriate audiences via this electronic delivery method. The content will vary from "just in time" tutorials designed to quickly demonstrate a specific skill to complete courses for K-12 students, teachers, and personnel. Since rolling out the Web portal, demand for the e-learning courses has been high, with courses filled to capacity.

National Board Resource Web Site

[National Board Certification](#), developed by teachers, with teachers, and for teachers, is a symbol of professional teaching excellence. Offered on a voluntary basis, it complements, not replaces, state licensing. While state licensing systems set entry-level standards for beginning teachers, National Board Certification has established advanced standards for experienced teachers. The NBPTS assessments for National Board Certification include having teachers construct a portfolio that represents an analysis of their classroom work and participate in exercises designed to tap the knowledge, skills, disposition, and professional judgment that distinguish their practice. West Virginia will reimburse one half of the enrollment fee to each individual who *enrolls* in the National Board Certification program and one half of the fee to each individual who *completes* 10 scorable entries as verified by the NBPTS. In addition, each teacher who *completes* 10 scorable entries may be reimbursed up to \$600.00 for expenses incurred while obtaining the certification, unless used for \$600.00 in a retake fee waiver. This [reimbursement program](#) is subject to legislative appropriation and shall be limited to 200 teachers annually as funding allows.

Mentorship Web Site

The [From Classroom to Classroom: 21st Century Guide for New Teachers](#) Web site is designed as a tool to help both the mentor and the new teacher redefine what their relationship, communication, and classrooms might look like in the 21st century. The West Virginia Teacher Mentorship Program provides teachers who are new to the classroom a mentor to observe the new teacher's classroom and provide evaluations. The Web site has six heading tabs, as follows:

- ✓ **Getting Started:** This section includes the [framework for teaching](#) and identifies the different types of resources available on the site, including talking points, online resources or articles, PowerPoint presentations, activities, and videos.
- ✓ **Inside the Classroom:** Classroom management and instruction resources are provided.
- ✓ **Special Needs:** This section of the Web site provides novice teachers with information about how to manage a special needs class and help special needs students.
- ✓ **Family Outreach:** Tips and strategies are identified for how to hold successful parent-teacher conferences, establish and maintain positive parent communication, involve parents in a meaningful way, and develop family involvement activities.
- ✓ **Teacher as a Leader:** This section provides information to novice teachers on ways they can become teacher leaders. Information on professional development, National Board Certification, and integrating technology is included.
- ✓ **Communication:** This section introduces the concept of 21st century communication, including learning to communicate with the digital native population in the native language and style of their students.

9. Collaboration with Outside Partners

Collaboration with outside partners is a key step to creating a successful statewide 21st century learning initiative. In its publication [Learning for the 21st Century: A Report and MILE Guide for 21st Century Skills](#) (2002), the Partnership for 21st Century Skills describes how many different kinds of stakeholders (e.g., parents, higher education entities, employers, content providers) can make important contributions to educational systems. Each stakeholder brings a unique perspective on and vital resources for areas of importance and need in the 21st century world. The Partnership, believing that “improving education for the 21st century is a community-wide endeavor” (p. 24), recommends that states “create an active coalition of business, education, non-profit, and community organizations” (p. 7) to most effectively develop broad consensus and shared vision, convey the urgency of the need for 21st century learning, and plan for successful statewide implementation. To this end, WVDE has established partnership with several entities to provide sufficient, appropriate resources, training, and support for West Virginia educators as they prepare students for the demands of the 21st century.

Partnership Agreement

In November 2004, Dr. Steven L. Paine, then Deputy State Superintendent, attended the Council of Chief State School Officers (CCSSO) conference at Kiawah Island, South Carolina, where he experienced his first substantive contact with the concept of developing 21st century skills. The conference included a session on P21, led by P21 President Ken Kay, who highlighted the key aspects of the Partnership and its intentions. Following this conference the WVDE began developing the state application to join P21. The application brought together primary stakeholders, including the Governor’s Office; the Legislature; and principal, superintendent, and leader organizations committed to changes in public education in West Virginia. The application was approved by P21 in 2005 and West Virginia became the second state in the nation to join the Partnership. The Partnership agreement was signed in November 2005, at the district level conference attended by leadership teams from every district. Those present to sign the agreement included Ken Kay, President of P21; Dr. Steven L. Paine, State Superintendent; Dr. Lowell Johnson, West Virginia State Board President; Governor Joe Manchin; Senate Education Chair, Sen. Robert Plymale; House Education Chair, Robert Campbell; West Virginia Education Association President, David Haney; West Virginia American Federation of Teachers President, Judy Hale; and other business leaders and policymakers. All stakeholders committed their support to the Coalition of 21st Century Learners Statement of Support and pledged to do all they can to support a 21st century learning community in West Virginia.

Appalachia Regional Comprehensive Center

The [Appalachia Regional Comprehensive Center](#) (ARCC) at Edvantia is one of 16 technical assistance centers funded by the U.S. Department of Education. The comprehensive center provides regional state education agencies with intensive technical assistance to address the No Child Left Behind (NCLB) requirements and meet student achievement goals. ARCC has provided technical assistance to WVDE in its efforts to implement several components of the 21st Century Learning Initiative. First, ARCC staff have worked with WVDE since 2005 to enhance its capacity to assess eighth-grade students’ technology and problem-solving skills. As a result, WVDE has selected and is piloting a comprehensive, sequential technology curriculum and authentic assessment system in 13 school districts. WVDE was featured in an ARCC webcast, *Technology Proficiency: A Moving Target*, on October 25, 2007. The webcast included state education agency staff from North Carolina and West Virginia, as well as representatives from the International Society for Technology in Education (ISTE) and the Partnership for 21st Century Skills (P21).

Second, ARCC has assisted WVDE in identifying, training, monitoring, and supporting a statewide cadre of Technology Integration Specialists (TIS), who train and model for teachers the meaningful use of technology in instruction. To ensure that all teachers—not just regular classroom teachers—have access to technology integration support, the TIS cadre includes special education and Title I teachers and media specialists.

Third, ARCC collaborated with WVDE to develop and conduct instructional appraisals for use with the state's 21st Century High Schools That Work program. The appraisals are customized to reflect the priorities of the WVDE's 21st Century Learning Initiative. WVDE uses data from the appraisals to help schools improve instructional practices and achieve the instructional goals of the 21st Century Learning Initiative.

Buck Institute for Education

In 2008 WVDE established a partnership with the [Buck Institute for Education](#) to support the department's work with high-quality project-based learning in K-12 education. Through the partnership, the Buck Institute will provide training for 45 staff members of West Virginia's Teacher Leadership Institute (TLI). TLI staff will, in turn, provide a week of intensive professional development (to include project-based learning) to 600 participating teachers from around West Virginia. Staff from the Buck Institute will continue to collaborate with WVDE personnel throughout the year as the department provides ongoing support and training to teachers across the state. The Buck Institute and WVDE currently (as of May 2008) are collaborating on the development and sharing of resources. Further, the two entities are in the early stages of discussions to expand and extend the partnership to include research and joint publications.

Center for Civic Education

WVDE has partnered with the national [Center for Civic Education](#) to provide training and resources to West Virginia teachers. Some of the Center's programs include *We the People* (The Citizen and the Constitution), *Project Citizen*, and the *Campaign to Promote Civic Education*. Since 2005, representatives from the Center for Civic Education have come to West Virginia to provide training in the Center's programs and speak with teachers about the importance of civics and, in particular, civics in the 21st century. Further, in 2006, the Center's Campaign to Promote Civic Education recognized West Virginia for the state's efforts to encourage civics education in schools.

Connections Conference

WVDE and the state's higher education institutions continue working together to align West Virginia's 21st Century Teaching and Learning initiative in both teacher preparation programs and PreK-12 schools.

The Connections initiative helps West Virginia's institutions of higher education become familiar with the technology software, hardware, and technology integration efforts currently offered in PreK-12 schools. This opportunity placed proven technology-based instructional strategies in the hands of the people who will be training future teachers.

An overview of WVDE instructional technology initiatives was provided along with hands-on practice. The [agenda](#) consisted of general sessions, nationally recognized keynote speakers, interactive/hands-on breakout sessions, and team planning time for higher education faculty to create action plans designed to incorporate the initiatives within their institutions' teacher education preparation. Nationally recognized keynote speakers provided updates on innovative technology integration initiatives and new standards for teachers relevant to higher education preparation programs.

This technology professional development conference came as the WVDE and the state's higher education institutions have already been working together on implementing Classroom Assessments for Learning through a series of professional development sessions. Higher education faculty members are also currently participating in the West Virginia Leadership Development and Support Collaborative to create recommendations and proposals to better prepare principals for 21st century schools.

Historically, a lack of connection between K-12 and higher education in the United States has hampered implementation of U.S. education policy. The country's two separate systems of mass education—K-12 on one hand and universities and colleges on the other—rarely collaborated to establish consistent standards. But a new willingness between K-12 and higher education to work together and effect significant change has been emerging among the various education sectors as the public demands greater accountability from its schools.

Delaware Science Coalition

In May 2008, WVDE began a partnership with the [Delaware Science Coalition](#) (DSC). Representatives from WVDE built on personal contacts with the Delaware State Science Coordinator through the Council of State Science Supervisors and the National Science Teachers Association (NSTA). WVDE representatives sought out the Delaware State Science Coordinator; the [Assistant Superintendent of the Division of Curriculum & Instruction](#) saw a presentation on the DSC's progress in science education and wanted to find out more. The partnership between WVDE and DSC will focus on West Virginia's new (as of 2008) elementary science initiative. WVDE is modeling the initiative on the DSC model, which includes science kits and units developed using Understanding by Design. WVDE will adjust the program to meet West Virginia's CSOs. However, DSC has agreed to allow WVDE to use the full DSC program. DSC has further provided information on creating databases, professional development, purchasing, and assessment. Lead instructors from DSC will travel to West Virginia to provide professional development to 50 West Virginia science teachers.

Environmental Systems Research Institute (ERSI)

As part of the partnership begun in 2008, WVDE and [Environmental Systems Research Institute](#) (ERSI) are working together to provide geographic information systems (GIS) software to all middle schools and high schools in West Virginia. WVDE is currently (as of May 2008) in the process of purchasing ArcView GIS software, a program that enables users to visualize, manage, create, and analyze spatial and geographic data. ERSI is assisting WVDE with pricing and technical support to make the purchase of the software feasible and affordable.

Globaloria Education Program

Students across the Mountain State are learning how to become active citizens in today's increasingly connected and digital world through [Globaloria](#), an innovative educational program that launched with funding from the state of West Virginia and the Claude Worthington Benedum Foundation. Verizon West Virginia also demonstrated its support and vision with a grant to continue expanding the program in 2008.

The Globaloria program, established in 2006 by the World Wide Workshop Foundation, uses the latest World Wide Web and social media technology to empower young people to learn how to create interactive games and simulations, collaborate online, and solve problems together. Its activities help students sharpen their communication and critical-thinking skills for leadership online and offline, bringing them closer to the participatory and collaborative nature of work in the 21st century.

In July 2007 the Office of the Governor invited the World Wide Workshop Foundation to partner with West Virginia and the Benedum Foundation to launch Globaloria. Since then, 14 educators and 65 students from six schools across the state have been learning Internet media technology and game-development skills. For more information about the program, contact info@worldwideworkshop.org.

Higher Education

The 21st century partnership between WVDE and higher education institutions began at the time of the P21 signing in December 2005. WVDE included representatives from the 19 institutions of higher education that housed teacher preparation programs in 9 days of professional development offered to WVDE staff. On the final day of the training, representatives from each department, organization, and institution at the training outlined how they planned to change their practices as a result of the training.

In January 2007, the president of the West Virginia State Board of Education requested that the State Superintendent of Schools form a committee, in collaboration with the West Virginia Higher Education Policy Commission Chancellor, to make recommendations to the Board about incorporating 21st century teaching and learning skills into West Virginia's teacher preparation programs. The Office of Instructional Technology, Office of Professional Preparation, and the 19 institutions of higher education partnered to request a grant from the [Benedum Foundation](#) for seed money to review each higher education institution's teacher preparation program. As a result of examinations of and reflection about the requirements of teacher preparation programs and certificate renewal and receipt, changes have been made that incorporate additional mathematics, reading, and technology courses. Teachers must also participate in at least 3 hours of technology integration training to renew their teaching certificates. The West Virginia Board of Education approved the changes made in all teacher preparation and certification programs to reflect a new emphasis on 21st century knowledge and skills.

Because higher education institutions currently do not have a professional development program for professors to teach them how to integrate technology into instruction and teach future teachers how to do so, WVDE and the 19 higher education institutions held a conference called 21st Century Connections in May 2008. Four national presenters discussed and demonstrated the technological resources available to the institutions that could be incorporated into teacher preparation programs. These resources will help teachers-in-training to become more technology savvy and to use technology to teach students how to seek out information.

Intel

The partnership between WVDE and [Intel](#), expanded in 2006 to include the 21st Century Learning Initiative, was built on existing connections between the two entities through the State Educational Technology Director's Association (SEDTA) and through Intel's participation in the national Partnership for 21st Century Skills. Through these existing connections, the WVDE was familiar with Intel, what the partner was already doing, and what it could offer the initiative. As of May 2008, Intel and WVDE had been working together for a couple of years specifically on the programs included in the 21st Century Learning Initiative. Intel provides free tools and curricula to WVDE to help students develop familiarity with information and communication technology, problem solving, critical thinking, and collaboration. Two primary courses are available to West Virginia teachers: Intel Teach Essentials and Intel Teach Thinking with Technology. Intel also provides training to enable West Virginia teachers to use these courses with their students. West Virginia teachers can become Master Trainers, who train Participant Teachers, or Senior Trainers, who train Master Trainers. As of 2007, three West Virginia teachers had begun training to become Senior Trainers; WVDE planned to have 50 Master Trainers and 500 Participant Teachers by summer of 2007. Intel also provided a grant to WVDE to help the department provide professional development at the school level. Among the free tools Intel has provided are tools for thinking, tools for learning essentials, tools to meet Content Standards and Objectives in technology, and rubric tools for assessment. The partnership with Intel has helped across the content areas.

International Society for Technology in Education

The [International Society for Technology in Education](#) (ISTE) is the trusted source for professional development, knowledge generation, advocacy, and leadership for innovation. A nonprofit membership organization, ISTE provides

leadership and service to improve teaching, learning, and school leadership by advancing the effective use of technology in preK-12 and teacher education. Home of the National Educational Technology Standards (NETS), the Center for Applied Research in Educational Technology (CARET), and the National Educational Computing Conference (NECC), ISTE represents more than 85,000 professionals worldwide.

ISTE's National Educational Technology Standards (NETS) have served as a road map for improved teaching and learning by educators across the United States. The standards, used in every U.S. state and many countries, are credited with significantly influencing expectations for students and creating a target of excellence relating to technology.

Learning First Alliance

The West Virginia Board has partnered with the national [Learning First Alliance](#) to establish a West Virginia affiliate.

MetaMetrics

WVDE's Office of Instruction developed a partnership with [MetaMetrics](#) to obtain Lexile and Quantile measures for the state's adopted textbooks in reading and mathematics (respectively). The MetaMetrics Lexile Framework uses students' reading ability to inform instruction and select appropriate reading materials; the Quantile Framework uses students' mathematics mastery to inform instruction. This initiative followed the WVDE Office of Assessment's work with CTB/McGraw-Hill to obtain Lexile (reading) and Quantile (mathematics) measures on the state's assessment reports. In addition to the provision of these measures for the state's textbooks, the partnership with MetaMetrics will also provide professional development to assist K-12 teachers understand Lexile and Quantile measures and how these measures can and should inform their instruction with individual students. The WVDE-MetaMetrics partnership will provide teachers with "just-in-time" training and information to assist them in planning daily instruction—including the design of instruction and the use of instructional materials. The partnership also includes a training program designed for parents, to teach them how to use the Lexile Framework in helping their children select appropriate reading material to help develop reading comprehension skills.

NASA Challenger Center

The partnership between WVDE and the [NASA Challenger Center](#) began in 2008, based on personal contacts between WVDE personnel and staff at the NASA Challenger Center. After consultations, WVDE decided to showcase the Challenger Center's e-missions program at the 2008 Teacher Leadership Institute. As the opening session of the Institute, Challenger Center staff will provide an interactive simulation of a space mission. Challenger Center staff will also provide clinics to train teachers in how to do an e-mission in their classrooms. All training will be provided free by Challenger Center staff.

NASA IV and V Education Resource Center

WVDE, using the existing personal connections of Department personnel, began a relationship with the [NASA IV and V Education Resource Center](#) (ERC) in 2008. The ERC provides professional development for teachers in applications such as global positioning satellite (GPS) technology, robotics, podcasting, and LEGO robotics in the classroom. WVDE personnel have attended ERC sessions on topics such as enhancing engineering in education. ERC personnel are sharing NASA's multimedia content by making available to West Virginia teachers fully-loaded iPods that contain the ERC's 250-video library. Representatives from the ERC will provide training on podcasting and LEGO robotics to West Virginia teachers during the 2008 West Virginia Teacher Leadership Institute. ERC personnel will also provide regular training and resources to West Virginia teachers. ERC personnel are excited about the partnership and hope to formalize and expand and extend it soon.

National Board for Professional Teaching Standards

WVDE has collaborated with the [National Board for Professional Teaching Standards](#) (NBPTS) and the Benedum Foundation to provide resources, professional development, and an online network of facilitators and other support people to assist teachers in pursuing national board certification. WVDE also [assists teachers](#) pursuing National Board Certification by providing each year's cohort of candidates with a facilitator who guides them through each step of the certification process. For those West Virginia teachers who receive National Board Certification, the state legislature has set aside a salary supplement of \$3,500 each year for 10 years—the length of the national certification; further, National Board Certified Teachers' expenses related to the certification are reimbursed. WVDE also worked with local school districts to persuade them to provide additional supplements to the salary supplement offered by the state. The goal of these efforts is to increase the number of expert teachers in West Virginia classrooms. Further, WVDE officials hope that these efforts—particularly the financial support—will encourage teachers to stay in the classroom in West Virginia rather than leave the profession or the state.

National Council on Economic Education

WVDE partnered with the [National Council on Economic Education](#) (NCEE) to provide professional development and resources to West Virginia teachers for economics education. Since 2006, representatives from NCEE have traveled to West Virginia to work with teachers (particularly social studies teachers) to help teachers be better prepared to teach economics. NCEE provides materials and assistance to WVDE at a reasonable cost.

National Geographic Society

WVDE and the [National Geographic Society](#) have partnered through the West Virginia Geographic Alliance since the early 1990s. The National Geographic Society has provided a great deal of professional development for West Virginia teachers. Additionally, the [National Geographic Education Foundation](#) has provided grants to enable students to study issues related to geography.

Oracle

The partnership between WVDE's 21st Century Learning Initiative and [Oracle](#), begun in 2007, was built on existing connections through SEDTA and through the Partnership for 21st Century Skills. Because of these existing connections, WVDE was familiar with Oracle, what the partner was already doing, and what it could offer the initiative. Planning for the partnership began during June and July of 2007 at the National Educational Computing Conference. In November 2007, WVDE sent 11 educators (including 2 WVDE staff members) to California to participate in a multinational week-long training on project-based learning hosted by the Oracle Institute. The WVDE educators had already spent time in an Oracle online course about project-based learning. Further, they had the opportunity to learn about Oracle's [Think.com](#), which gives teachers a safe place online to set up projects to share with other classrooms in the same school, other schools in West Virginia, or others around the world. When the educators returned from the training, they began implementing in their schools what they had learned at the training. With Oracle's help, WVDE is providing professional development to West Virginia teachers to help them use Think.com.

Parent and Community Involvement

The West Virginia Board of Education believes that parent, family, and community involvement at early childhood, middle, and adolescent levels is absolutely fundamental to a healthy system of public education. The state board launched the Parent and Community Involvement initiative to strengthen crucial partnerships with family and

community stakeholder groups. In the fall of 2008, a task force was formed and a strategic plan approved by the board that outlines three key goals: promote parent and community involvement; develop resources in and for districts; and develop a support infrastructure in each county. In spring 2008, the state revised [Policy 2200](#) to better align with 21st century learning. The policy guidelines specify requirements for promoting parent, family, and community involvement through district policy and strategic planning in order to ensure that parents, families, and communities are effectively involved in the education process of children.

Regional Educational Laboratory (REL Appalachia)

The REL Appalachia is composed of a team of nationally recognized education research scientists employed by The CNA Corporation (CNAC) in Alexandria, Virginia. Serving Kentucky, Tennessee, Virginia, and West Virginia, the REL Appalachia's mission is to provide high-quality research, analysis, and technical assistance that help state and local education systems in the region achieve higher educational standards and close the achievement gap. REL Appalachia achieves its mission through core activities: the assessment of regional education needs; applied research; and long-term studies that evaluate the efficacy of educational interventions. REL Appalachia is supporting the 21st Century Learning Initiative with a half-time field research analyst who conducts research studies for the State Superintendent of Schools.

SAS inSchool

An existing partnership between [SAS inSchool](#) and WVDE was aligned with the goals of the WV 21st Century Learning Initiative. In 2004, F. Selby Wellman made a gift through SAS inSchool's Partners in Education program to allow West Virginia secondary teachers to use [Curriculum Pathways](#). Mr. Wellman's gift enables WVDE and schools to use the program at affordable rates. Curriculum Pathways provides 8th- through 12th-grade teachers with resources in math, science, English, social studies, and Spanish; these resources, which meet West Virginia's CSOs and promote higher order thinking relating to 21st century skills, are intended to enhance teacher effectiveness and promote improved student achievement. Through the partnership with SAS, WVDE personnel receive training from SAS and, in turn, provide professional development to West Virginia schools.

Southern Regional Education Board

Founded in 1948, the [Southern Regional Education Board](#) (SREB) is a nonprofit, nonpartisan organization that works with leaders and policymakers in 16 member states to improve pre-K through postsecondary education. Through many nationally recognized programs and services, SREB's mission is helping states achieve the 12 Challenge to Lead goals for Education.

The SREB Educational Technology Cooperative, composed of state higher education and K-12 coordinating and governing boards, focuses on ways to help state leaders create and expand effective uses of technology in schools and colleges. This unique, multistate cooperative represents more than 3,300 school districts and nearly 800 colleges and universities in the 16 SREB states. It monitors and reports on a wide array of educational technology topics and works with states to use technology wisely. As schools and colleges implement and use technology, they need to see the connection between technology and higher student achievement. In the *Technology Counts 2008* report issued by *Education Week*, West Virginia, one of the 16 SREB states, was rated number 1 in the nation for educational technology.

Task groups address specific initiatives and topics of interest as time permits or as the topics become increasingly important for SREB states. The task groups for 2007-2008 are

- ✓ Online Learning (OLTG)
- ✓ Teaching and Learning (TLTG)

- ✓ Information Technology (ITTG)

As mentioned earlier in this chronicle, WVDE is adapting SREB's High Schools that Work program and piloting the 21st Century High Schools that Work program across the state.

State Educational Technology Directors Association

With West Virginia as one of its founding members, the [State Educational Technology Directors Association](#) (SETDA) was founded in the fall of 2001. SETDA is the principal association representing the state directors for educational technology. SETDA's goal is to improve student achievement through technology and its mission is guided by three key principles:

- ✓ To promote national leadership in educational technology to support achievement in lifelong learning
- ✓ To provide professional development in educational leadership for members
- ✓ To build partnerships and provide leadership to advance learning opportunities

Verizon Foundation

WVDE's partnership with Verizon began in 2006 when Verizon purchased WorldCom/MCI. The Verizon Foundation provides a Web portal called [Thinkfinity](#) (formerly known as MarcoPolo) that provides organized, active links to partners who provide free educational content in multiple content areas to teachers. Partners in Thinkfinity include the Kennedy Center for the Performing Arts (arts integration); the National Council on Economic Education (economics); the National Endowment for the Humanities (humanities); the National Council of Teachers of Mathematics (mathematics); the International Reading Association (language arts); the American Association for the Advancement of Science (science); National Geographic (geography); the Smithsonian National Museum of American History (American history); and the National Center for Family Literacy, the National Council of Teachers of English, and ProLiteracy Worldwide (literacy network). Thinkfinity and its partner sites include lesson plans, interactivities, movies, and other types of educational content. Through a grant provided by the Verizon Foundation, lesson plans provided through Thinkfinity will be aligned to West Virginia's CSOs. The Verizon Foundation also provides a nationally certified trainer who works with West Virginia teachers to train others to use the Thinkfinity resources; all training is provided free of charge.

West Virginia State Treasurer's Office

In 2005 WVDE and the [West Virginia State Treasurer's Office](#) built on existing relationships to strengthen and extend the collaboration to include a specific focus on 21st century learning skills. In addition to the existing partnership that traditionally included professional development and materials for teachers in various content areas (e.g., social studies), the West Virginia Treasurer's Office is working with WVDE to provide professional development sessions for teachers focused on personal finance education for students. The West Virginia Treasurer's Office also collects and distributes free materials and resources to teachers across West Virginia on a regular basis.

Conclusions

When West Virginia became the second state to join the Partnership for 21st Century Skills, WVDE committed itself to a long-term, comprehensive, and systematic improvement effort to transform a state educational system into a system both dedicated to and capable of preparing learners for the globally competitive economy of the 21st century. This chronicle is a testament to the incredible amount of effort that has been put forth in the past 2½ years to address every level of the educational system in a logical and holistic manner, driven by a single focus of ensuring all West Virginia students receive a high-quality and rigorous 21st century education.

An analysis of this document finds structures in place to provide for involvement and, ultimately, commitment from all stakeholders including the governor, legislature, West Virginia State Board, WVDE staff, superintendents, district leadership, principals, teachers, higher education, community representatives, and business leaders. No one is excluded from this initiative. It is only through consensus on a common set of goals—a vision for the future of West Virginia’s children—that the 21st Century Learning Initiative will succeed.

The initiative is grounded in a set of policies and guiding documents that derive from this common set of goals. WVDE has reorganized to support these goals and deliver its services in an efficient and effective manner. All major purposes of a state department of education have been touched by this initiative. There has been a transformation of curriculum and instruction based on the rigorous state standards that resulted from months of strenuous work by a dedicated and diverse group of stakeholders and several reviews by outside experts. Technology is infused throughout the educational system; this state has received national accolades for its instructional technology. Assessments are being aligned to fully monitor the success of this initiative through the knowledge and skills students have gained.

None of this could be accomplished without a massive and coordinated professional development effort. West Virginia’s system of professional development for educators is multilayered, multimedia, and multiyear. There is no one-shot professional development. There cannot be and still achieve the vision of the 21st Century Learning Initiative. Plans are wasted if they are not implemented where it counts the most: in the classrooms of every school across this state. To this end, personnel at all levels of the state’s educational system must share a common understanding of the goals of the initiative and processes and actions it will take to achieve those goals.

West Virginia’s educational leaders also understand that “no man [or state] is an island.” The state must collaborate among its own stakeholders and with key organizations and institutions that add value to the rigor and comprehensiveness of the educational system. West Virginia has embraced collaboration, seeking out the very best and most innovative of partners and programs and boldly implementing programs expressly designed to engage and develop the 21st century learner.

This document represents a snapshot of a journey of transformation. It represents what is, and what has been, but not yet what will be. This initiative is in its adolescence. It has grown considerably, but must develop further, carrying on the momentum gathered thus far. There is no finish line—just a determined and optimistic willingness to continue this journey for the sake of our future.

We hope the readers in other states find this chronicle to be a valuable resource as they engage in the process to implement 21st century instruction and learning.