



**Report to the Legislative Oversight Commission
on Education Accountability**

September 13, 2010

**MASTER PLAN: MEETING THE CHALLENGE
2010-2015**



**Master Plan:
MEETING THE CHALLENGE
2010-2015**

SUMMARY

**Presented to
Legislative Oversight Commission on Education
Accountability (LOCEA)**

September 13, 2010



Development: Summary

- Addresses Elements in SB 595:
- Steering Committee Created
- Consulted:
 - President’s Group (CTCAC)
 - Chief Academic Officers
 - Faculty Advisory Council
 - Classified Staff Advisory Council
- Internal and External Data Review and Analysis Conducted
- Based on Research and Best Practices
- Based on the Principles of “Achieving the Dream” Initiative



Master Plan Structure/Organization

- Major Goals
- Objectives
- Strategic Priorities
- Measures
- Targets
- General Strategies



Major Changes from Target 2010

- Priority changes from student access to student success
 - Retention
 - Completion
- Uses annual headcount enrollment as access measure
- Count both full-time and part-time students in student success measures
- Includes transfer as successful outcome



Major Changes

- Focus on long-term economic development as workforce development measure
- Added resources category as a goal
- Added a strategic priority to each goal



Focus Areas/Goals

I. Student Success

- Goal:
 - o Produce graduates with the general education and technical skills needed to be successful in the workplace or subsequent education.
- Strategic Priority:
 - o Produce more graduates



Goal 1: Student Success

▪ OBJECTIVES

- Produce more graduates
- Prepare students for success in the workplace
- Prepare students for success at four-year institutions



Goal 1: Student Success

▪ MEASURES

- Degree Production
- Retention Rate
- Transfer Rate
- Licensure Passage Rate
- Placement Rate
- Developmental Education Success Rate



Goal 1: Student Success

▪ TARGETS

- Award 16,000 new degrees
 - Average of 3,200 per year
 - Currently 2,651 per year
- Student success rate of 36%
 - Currently 30%
- Improve retention rate by 10%
- Licensure passage rate of 90%
- Employment/education placement rate minimum of 83%



Focus Areas/Goals

II. Workforce Development

- Goal:
 - Provide workforce development programs that meet the demands of West Virginia's employers and enhance West Virginia's economic development efforts.
- Strategic Priority:
 - Promote proactive employer partnerships



Goal 2: Workforce Development

▪ OBJECTIVES

- Meet short-term workforce development needs of employers
- Support long-term regional economic development efforts



Goal 2: Workforce Development

▪ MEASURES

- Training contact hours produced
- Number of employers served
- Career-technical degrees earned
- Sector-based workforce partnerships developed



Goal 2: Workforce Development

▪ TARGETS

- Increase training contact hours by 10%
- Increase employers served by 10%
- Award 13,000 career-technical degrees
 - Average of 2,600 per year
 - Currently 2,319
- Implement 24 new technical degree programs
- Implement 29 new sector-based workforce partnerships



Focus Areas/Goals

III. Student Access

▪ Goal:

- o Provide access to affordable, comprehensive community and technical college education in all regions of West Virginia.

▪ Strategic Priority:

- o Serve more adult students.



Goal 3: Student Access

▪ OBJECTIVES

- Provide open access to all students who wish to learn
- Provide an affordable education for students
- Serve all regions of West Virginia



Goal 3: Student Access

▪ MEASURES

- Total annual headcount enrollment
- Adult student annual headcount enrollment
- Headcount enrollment for underserved counties
- Net tuition to median family ratio



Goal 3: Student Access

▪ TARGETS

- Increase annual headcount enrollment to 37,000 students; currently 36,090
- Minimum of 47% of student served will be age 25 and older; currently 45%
- Increase enrollment from the most underserved counties by 750 students, an increase of 50%



Goal 3: Student Access

▪ TARGETS

- Average net tuition rate increases will not exceed median family income increases
- Increase the total student financial aid participation rate by 10%, from 42% to 52%



Focus Areas/Goals

IV. Resources

- Goal:
 - o Provide resources to meet the needs of community and technical college students and employees.
- Strategic Priority:
 - o Building and maintain facilities.



Goal 4: Resources

- OBJECTIVES
 - Create a work environment where faculty and staff thrive
 - Communicate and collaborate effectively with key stakeholders
 - Construct, renovate and maintain appropriate facilities
 - Utilize technology more effectively and efficiently



Goal 4: Resources

▪ MEASURES

- New external funding secured
- Total cost savings
- Faculty salaries as a percentage of national average
- Staff salaries as percentage of market salaries and classified staff salary schedule funding level
- Facilities construction, renovation and maintenance funding



Goal 4: Resources

▪ TARGETS

- Generate \$10 million in external funding
- Generate \$2.5 million in cost savings
- Reduce the gap between the average WVCTC faculty salary and the national average
- Fully fund classified staff salary schedule
- Increase the number of credit hours earned through online and hybrid courses by 10%



Master Plan: NEXT STEPS

▪ NEXT STEPS

- Approval from Legislative Oversight Commission on Education Accountability (LOCEA)
- Approval from WV Council for Community and Technical College Education
- Institutional compact submission, review and approval



QUESTIONS

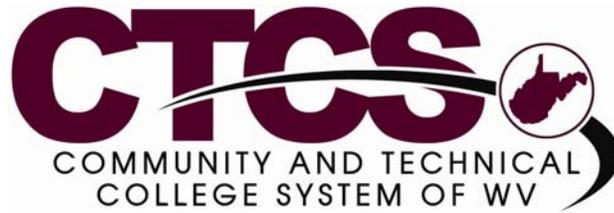
???

JAMES L. SKIDMORE, CHANCELLOR

WV Council for Community and Technical College Education

1018 Kanawha Boulevard, East | Suite 700 | Charleston, West Virginia 25301

Phone: 304-558-0265 | Email: skidmore@wvctcs.org



Meeting the Challenge: 2010-2015

West Virginia Community and Technical College System Master Plan

James L. Skidmore, Chancellor
WV Council for Community and Technical College Education
1018 Kanawha Boulevard, East – Suite 700 – Charleston, WV 25301
Phone: 558.0265 Email: skidmore@wvctcs.org
Web: www.wvctcs.org

Introduction

Between 2005 and 2010, the fledgling Community and Technical College System of West Virginia underwent a remarkable transformation. Only one year earlier, in 2004, the Community and Technical College System had become independent, and by 2009, all of the state's community and technical colleges were independent, stand-alone institutions. With this independence has come a new set of responsibilities – among them the responsibility to increase enrollment and serve more adult students, the responsibility to develop and implement more technical programs that align with State economic development needs, the responsibility to provide more workforce development education and training, and the responsibility to produce graduates ready for success in the workplace and life.

Over the last five years, the West Virginia Community and Technical College System made great strides in these and other areas. The Community and Technical College System saw its overall annual enrollment increase by 26.8 percent from 28,415 students in 2005 to more than 36,000 students in 2010 and its adult enrollment increase by 34.7 percent over the same period. The System also expanded dramatically the number of new technical programs offered by developing and implementing 120 such programs over the five-year period. In addition, the System more than doubled the amount of workforce development provided, with more than 3 million total hours of workforce development education and training. Finally, the System awarded more than 13,300 certificate and associate degrees, saw more than 90 percent of its graduates successfully complete licensure and certification exams, and saw about three-fourths of its most recent graduates work or pursue advanced education in West Virginia and earn an average starting salary of almost \$28,000 immediately after graduation (Hammond and Hoffer, 2010).

Despite all of this progress, the State of West Virginia and the West Virginia Community and Technical College System face a number of challenges that will have to be met over the next five years and beyond if West Virginia is to provide its citizens with the quality education they need to be successful in the global economy. Those challenges include producing more graduates, developing stronger long-term relationships with businesses and industries, serving more adults, and building and maintaining facilities necessary to support these and other goals and objectives.

As the 2005-2010 master planning period comes to an end, West Virginia and the nation face one of the most significant economic downturns in decades. This economic condition has caused many businesses to reduce workforces and restructure workplaces and has left many workers unemployed. In many cases, these individuals need new workplace skills traditionally acquired through community and technical colleges if they are to compete successfully for jobs in the new economy. The United States Department of Labor projects that of the 47 million jobs likely to become available in the next ten years, 14 million will require a two-year associate degree, a one-year certificate degree, or some other form of training beyond high school that falls short of a bachelors degree. For new economy jobs, the percentages are even higher.

The economic downturn has produced two new realities for West Virginia community and technical colleges: higher student enrollment and flat state funding to support the delivery of education and training programs. Additionally, West Virginia's community and technical colleges face the continuing challenge of serving a population of students for whom life – unemployment, other financial issues and family obligations – often gets in the way of completing a program of study. West Virginia's community and technical colleges must find a way to serve all students, regardless of their life circumstances, so they can earn credentials that will allow them to better themselves in today's marketplace.

Given these economic realities, it should not be surprising that the national dialogue surrounding higher education, generally, and community and technical college education in particular is changing. First and foremost, there has been a shift in focus at the national level away from student access and toward student success as America falls further behind its first world counterparts in producing college graduates and as college retention and graduation rates receive renewed scrutiny. Second, there has been a shift in the workforce development arena away from simply trying to meet employers' short-term education and training needs and toward forming and sustaining strong sector partnerships to address the long-term needs of key regional industries.

The West Virginia Community and Technical College System's 2010-2015 master plan was developed taking into consideration the System's metamorphosis over the last five years, how the new economy is reshaping what is needed from community and technical colleges, and the changing national dialogue surrounding community and technical college education.

In terms of structure, the 2010-2015 master plan looks different from the System's inaugural plan; Target 2010. First, while the goals remain largely unchanged, they are accompanied by objectives that attempt to focus on the key elements of each goal. Second, the plan identifies four strategic priorities or overarching areas of focus for the next five years. Simply put, the four strategic priorities identified in the new master plan represent the four areas of highest importance if West Virginia's community and technical colleges and their students are to thrive over the next five years. Third, the plan identifies key System strategies for accomplishing the goals and objectives laid out in the 2010-2015 master plan. These strategies were developed through a prioritization process and represent the considered thinking of West Virginia's community and technical college leaders and others involved in the master planning process. Fourth, the master plan incorporates a series of objective measures and targets that can be used to evaluate whether the Community and Technical College System met the challenges laid out in the goals, objectives, and strategic priorities contained in the plan.

In terms of substance, the 2010-2015 master plan also is different. First, the new master plan shifts the primary focus away from student access and toward student success by identifying student success as the first goal and producing more graduates as the top strategic priority and by outlining a comprehensive new approach to student success measurement that aligns with the Lumina Foundation's *Community Colleges*

Count: Achieving the Dream initiative. Second, the new master plan puts greater emphasis on long-term economic and workforce development efforts. Third, the new master plan adds a new focus area; *resources*, including people, facilities, equipment, technology, and operating revenue. Although much has changed in the 2010-2015 master plan, much also remains the same with continued focuses on serving adults, expanding technical program offerings, making education affordable for students, and operating efficiently.

Vision

The Community and Technical College System of West Virginia will be a globally and nationally competitive system that is the 'first choice' for workforce development and provides affordable access to postsecondary education. The Community and Technical College System will be an entrepreneurial, *comprehensive* community and technical college *system* comprised of responsive, collaborative, and innovative colleges with the flexibility to meet the education and training needs of West Virginia's students and employers. The System will commit to:

- Being futuristic, strategic, and innovative in its planning and program delivery;
- Providing proactive and responsive services to business and industry;
- Increasing the educational attainment of West Virginia's citizens and providing life long learning opportunities that are accessible and customer driven;
- Delivering programs anywhere, anyplace, anytime, by any means or device;
- Celebrating and promoting diversity;
- Utilizing cutting edge technology; and
- Delivering relevant, rigorous and modularized curriculum

Mission

The mission of the West Virginia Community and Technical College System is to promote and provide high-quality, accessible, and responsive education and training opportunities that maximize student learning, improve the standard of living for West Virginians, and contribute to the economic vitality and competitiveness of our state. The Community and Technical College System will:

- Be a comprehensive community and technical college system that offers developmental education, career and technical education, workforce and continuing education and transfer education;
- Be the economic stimulus for business and industry to remain in or relocate to the state because of the education and training with which it equips its citizens to compete in the global economy;
- Produce a world-class workforce by being the primary provider of adult workforce and technical training; and

- Strategically partner with economic, workforce and community development, K-12 and the universities to meet the workforce development needs of citizens and businesses.

Goals and Objectives

Goal No. 1. Produce graduates with the general education and technical skills needed to be successful in the workplace or subsequent education.

Objective 1.1. Produce more graduates.

Objective 1.2. Prepare students for success in the workplace.

Objective 1.3. Prepare students for success at baccalaureate institutions.

Goal No. 2. Provide workforce development programs that meet the demands of West Virginia's employers and enhance West Virginia's economic development efforts.

Objective 2.1. Meet short-term workforce development needs of employers.

Objective 2.2. Support long-term regional economic development efforts.

Goal No. 3. Provide access to affordable, comprehensive community and technical college education in all regions of West Virginia.

Objective 3.1. Provide open access to all students.

Objective 3.2. Provide an affordable, high-quality education for students.

Objective 3.3. Serve all regions of West Virginia.

Goal No. 4. Provide resources to meet the needs of community and technical college students and employees.

Objective 4.1. Create a work environment where faculty and staff thrive.

Objective 4.2. Communicate and collaborate effectively with key stakeholders.

Objective 4.3. Construct, renovate, and maintain appropriate facilities.

Objective 4.4. Utilize technology more effectively and efficiently.

Strategic Priorities

During previous master planning efforts, the West Virginia Community and Technical College System set goals and identified measures, targets, and strategies, but never strategic priorities. The following strategic priorities will be areas of special focus for the System and its community and technical colleges over the next five years:

Priority No. 1. To meet the challenge to produce more graduates.

Priority No. 2. To meet the challenge to promote proactive employer partnerships.

Priority No. 3. To meet the challenge to serve adults.

Priority No. 4. To meet the challenge to build and maintain facilities.

Strategic Priority No. 1: To produce more graduates.

In July 2009, President Barack Obama set a goal for America again to have the highest proportion of college graduates in the world by 2020 (Obama, 2009). To reach President Obama's American Graduation Initiative (AGI) goal, five million additional Americans must earn certificate, associate and bachelors degrees. While federal funding for AGI has been reduced from a proposed \$12 billion to \$2 billion, community colleges nationally have embraced President Obama's target. At the conclusion of the 2010 American Association of Community Colleges (AACC) convention in May 2010, the AACC and five other groups representing community colleges signed a statement of commitment to "produce 50 percent more students with degrees and certificates by 2020, while increasing access and quality" (AACC).

Consistent with community and technical college research that demonstrates the economic importance of reaching the key academic momentum points of one and two years of postsecondary education (see, e.g., WSBCTC, 2005), the West Virginia Community and Technical College System will take up and meet the graduation challenge of President Obama and national community and technical college leaders. At present, West Virginia's community and technical colleges are awarding approximately 500 certificate degrees and 2,200 associate degrees annually. Although enrollment has increased, degree completion has remained stagnant. Over the next five years, the System and West Virginia's ten community and technical colleges plan to change this dynamic by making student graduation their top priority and in the process produce 16,000 new certificate and associate degree holders to support West Virginia's economy.

To meet the graduation challenge, West Virginia's community and technical colleges will strive to improve student graduation rates and increase the number of students earning certificate and associate degrees. First, the Community and Technical College System plans to improve results for the 63 percent of community and technical college students who take developmental education through its Integrated Pathways to Adult Student Success (I-PASS) initiative. Second, the System plans to support effective student retention and graduation strategies, promote non-traditional ways of earning degrees, and work to get students who started but did not finish their degrees back in school through its new On Reaching Academic Momentum Points (ON-RAMP) initiative.

Strategic Priority No. 2: To promote strong employer partnerships.

If West Virginia is to move forward economically, it must have a trained workforce. "Our State has long enjoyed a reputation for possessing a hard-working, dedicated labor force," explains West Virginia's Workforce Investment Plan. "However, future economic success will be greatly enhanced by providing our citizens with continuous opportunities to develop new skills needed to succeed in a rapidly changing world" (WorkForce West Virginia, 2007).

Workforce development undoubtedly has been the area of greatest transformation for community and technical colleges over the past five years. Over that period, West Virginia's community and technical colleges have increased the number of training contact hours provided by 73 percent, enrollment in career-technical programs by 103 percent, and skill set certificate completers by 63 percent. Yet, despite these huge leaps forward in workforce development, West Virginia still lags behind the best-performing states because so many of its business, industry, and labor partnerships are in their infancy.

To meet the workforce development challenge, West Virginia's community and technical colleges will strive to develop and strengthen regional industry sector partnerships over the next five years through a new CRISP (Coordination of Regional Industry Sector Partnerships) initiative. Consistent with research that finds that those regions and industries with strong regional industry sector partnerships do better in terms of economic growth (see, e.g., Rademacher, 2002), the Community and Technical College System will work with key policymakers to build dynamic industry partnerships involving business, labor, workforce and economic development, education providers, and others to support the growth of industries that are key to each community and technical college region's economic success. The partnerships will be developed based on the sector strategies model championed by the National Governors Association Center for Best Practices and the Corporation for a Skilled Workforce.

Strategic Priority No. 3: To serve more adults.

Adults and other non-traditional students are a key demographic target for community and technical colleges. In part this is because West Virginia ranks 49th nationally in terms of adults age 25 to 34 with either an associate or bachelors degree, and fewer than 23 percent of working age adults hold at least an associate degree (Lumina, 2009); and because of their mission, community colleges play an important role in the lifelong learning of adults.

Approximately 36 percent of West Virginia's public postsecondary students are adults, which compares favorably with both national and Southern Regional Education Board (SREB) averages. However, until this academic year (2009-2010), the numbers of adults age 25 to 44 being served by community and technical colleges had remained fairly flat at around 7,500.

To meet the non-traditional student challenge, West Virginia's community and technical colleges will strive to recruit, retain, and graduate more adult and other non-traditional students over the next five years. Consistent with research that suggests that adults and other non-traditional students have special needs (see, e.g., Aslanian and Giles, 2008), the Community and Technical College System will work with institutions to implement best recruitment, retention, and graduation practices for adult learners, including accelerated academic programs, increased online course offerings, and modularized curricula and effective career planning.

Strategic Priority No. 4: To build and maintain facilities.

All institutions need facilities in which to offer instruction and provide academic and student support services. As West Virginia's community and technical colleges have moved from behind the shadow of four-year institutions and rapidly expanded allied health and other technical program offerings, the need for facilities in which to provide instruction and other key student support services has become more acute.

At present, West Virginia's community and technical colleges face three serious facilities challenges. First, many community and technical colleges that formerly were administratively linked to four-year institutions need campuses on which to house core services. A \$78 million bond issue is funding the first phase at Blue Ridge Community and Technical College, Kanawha Valley Community and Technical College, Mountwest Community and Technical College, and New River Community and Technical College, but that funding is inadequate to meet the entire need. Second, West Virginia's community and technical colleges are rapidly expanding program offerings in allied health and other technical areas. These programs typically require both flexible space and expensive equipment for instruction. The State is funding two advanced technology centers, as well as other facilities designed for flexibility in technical program offerings, but the need for space remains a serious issue. Finally, West Virginia's community and technical colleges need to be able to finance ongoing maintenance of their facilities, but currently has no system in place for doing so.

To meet the facilities challenge, West Virginia's community and technical colleges will design, build and renovate buildings across the state with more than \$78 million in bond proceeds and a \$30 million appropriation for two advanced technology centers. In addition, the Community and Technical College System will seek \$120 million over the next five years for a second phase of construction and renovation projects to meet critical facilities needs, address deferred maintenance projects and acquire necessary equipment.

Goal 1: Student Success

Goal 1. Produce graduates with the general education and technical skills needed to be successful in the workplace or subsequent education.

Objective 1.1. Produce more graduates.

Objective 1.2. Prepare students for success in the workplace.

Objective 1.3. Prepare students for success at four-year institutions.

Introduction

Student success is the primary focus of the West Virginia Community and Technical College System and its ten community and technical colleges. Students enter community and technical colleges for a variety of reasons and with a variety of goals in mind. For some students, the primary goal is to pursue a specific career or gain

personal enrichment. For other students, the primary goal is to earn a community and technical college credential in the form of a skill set certificate, a certificate degree, or an associate degree. For still other students, the primary goal is to transfer to a four-year institution to complete their education. Finally, some students enter college without clear educational goals.

Student success research provides two important lessons to guide student success, evaluation and strategy setting. First, students who complete at least one full year of education and earn a credential are far more likely to succeed economically than students who do not (see, e.g., Prince and Jenkins, 2005). Second, students who require developmental education and who do not have clear educational goals are far less likely than other students to reach these important academic tipping points (see, e.g., National Center for Education Statistics, 2008).

The measures and targets identified in this section attempt to measure the multi-faceted nature of student success, and the enumerated strategies are consistent with the latest research on student outcomes.

Measures

The West Virginia Community and Technical College System proposes to change the way in which it evaluates student success, primarily to align with the pilot community college performance measurement system developed as part of the *Achieving the Dream: Community Colleges Count* initiative (JFF, 2008). In addition to measuring total student success rates, the Community and Technical College System will measure degree production, external success, and interim progress toward success.

Successful Outcomes. The West Virginia Community and Technical College System will measure successful outcomes in quantitative and qualitative terms because the System wants to produce not just graduates, but also graduates who are successful in the workplace and life.

- **Degree Production.** The West Virginia Community and Technical College System will measure degree production at community and technical colleges in two major areas:
 - *Total number of associate degrees awarded.* If West Virginia is to improve its overall postsecondary attainment rate and meet President Obama's graduation goal, West Virginia's community and technical colleges must operate an educational enterprise that enrolls more students, retains more students, and graduates more students with degree production being the ultimate goal. The System will continue to measure what historically has been the norm for evaluating community and technical college success: the number of associate degrees awarded.
 - *Total number of certificate degrees awarded.* "Tipping points" research suggests that students who complete a minimum of one year of college

coursework to earn a postsecondary credential experience significant wage gains (Prince and Jenkins, 2005). In West Virginia, that is the certificate degree. Therefore, the System will measure the number of certificate degrees awarded.

- **Total Success Rates.** The U.S. Department of Education currently examines three-year graduation rates of first-time, full-time community and technical college freshmen enrolling initially in the fall semester. This four-year-institution-focused measure of student success has several serious limitations. First, the measure does not track outcomes for individuals who enroll initially as part-time students. Second, the measure does not count students who transfer to a four-year institution to pursue a bachelors degree without completing a certificate or associate degree. Third, the three-year measure does not give many students, many of whom come and go as a result of work and family obligations and many of whom need extra time for developmental education, enough time to achieve a successful outcome. To provide a more comprehensive view of students' educational outcomes and consistent with the *Achieving the Dream* pilot community college performance measurement system, the West Virginia Community and Technical College System will use the following measures to evaluate the success of all students, full-time and part-time, who seek a degree over a six-year period.
 - *Percentage of students awarded an associate degree.* The System will measure the percentage of students in each six-year cohort who earn an associate degree.
 - *Percentage of students awarded a certificate degree.* The System will measure the percentage of students in a six-year cohort who earn a certificate degree, but not an associate degree.
 - *Percentage of students who transfer to a four-year institution without earning a certificate degree or associate degree.* Nationally, more than one-third of students enter community and technical colleges with the expressed intention of transferring to a four-year institution (Horn and Nevill, 2006). In many cases, these students transfer without earning degrees at community and technical colleges, even if they have the credits to do so. The System will measure the percentage of students in a six-year cohort who transfer to a four-year institution in West Virginia, as well as students who transfer to four-year institution in another state if such information becomes available.
- **External Success.** The West Virginia Community and Technical College System proposes to focus on two external measures of student success for which data are available:

- *Certification and Licensure Passage Rates.* The System will measure the percentage of graduating students taking and passing certification and licensure examinations within one year of graduation.
 - *Further Employment/Education.* The System will measure the percentage of certificate and associate degree graduates who enter the West Virginia workforce and/or continue their education in West Virginia (or other states if such information becomes available).
- ***Interim Progress.*** In addition to measuring final outcomes, it is important to examine intermediate measures of educational success. While six years may provide a reasonable time frame for measuring ultimate success, it is inadequate for institutions seeking to evaluate the effectiveness of interventions and improve student outcomes. The West Virginia Community and Technical College System also will measure three outcomes that are good predictors of ultimate success.
- *Percentage of students who achieve total success outcomes in fewer than six years.* To ensure that community and technical colleges have the information they need to evaluate progress and make timely adjustments to increase the number of students with successful outcomes, the Community and Technical College System will provide institutions with data on their two-, three-, four-, and five-year total success rates.
 - *Continuous enrollment.* Continuous enrollment from the first year to the second year is one of the best predictors of student success. The Community and Technical College System historically has measured continuous enrollment from year to year for first-time, full-time, award-seeking students, but will expand the measure to include part-time students consistent with the *Achieving the Dream* performance measurement system.
 - *Successful developmental student progress.* Research consistently shows that students who take developmental education courses are far less likely to have successful outcomes than their peers, especially if those students must take multiple developmental education courses or do not take the next subsequent college-level course immediately after completing developmental education (see., e.g., Jobs for the Future, 2008). In the past, the Community and Technical College System has measured parts of the developmental education pipeline in isolation (e.g., measuring only the number of students who start a developmental education course and successfully complete it). To better measure developmental education success and incentivize accelerated completion of developmental education and subsequent college-level courses, the System will measure the percentage of students who start developmental education in English or mathematics and successfully complete the subsequent college-level course within two years of starting the developmental education course.

Targets

The West Virginia Community and Technical College System is pleased to take up the challenge of President Obama and national community and technical college leaders by setting the following targets that will put the Community and Technical College System more than halfway toward meeting the national 2020 challenge by 2015.

- The System will award students with 16,000 new certificate degrees and associate degrees between 2010 and 2015, an average of 3,200 awards per year. Of that total, at least 12,750 will be associate degrees and 3,250 will be certificate's degrees.
- The System will have no institution with less than a 30 percent student success rate and an overall average success rate exceeding 36 percent.
- The System will improve its year-to-year retention rate for all students by ten percent, 56percent to 66percent.
- The System will increase the percentage of students who start developmental coursework and go on to complete the next follow-up course by ten percent.
- The licensure passage rate will increase to 90percent, an increase of two percent.
- The employment placement/continuation of education rate of career-technical program graduates will be at least 83percent.

Strategies

Literacy/Basic Skills Protocol. As open-admissions institutions, community and technical colleges accept all students, regardless of their level of academic preparation. Researchers nationally, as well as West Virginia community and technical college leaders, have called into question some of the protocols for assessing and placing students who are not adequately prepared for college (Collins, 2009). The West Virginia Community and Technical College System will work with community and technical colleges to review and revise assessment, placement and service protocols currently in place.

Academic and Career Planning. Many students enter community and technical colleges without clear academic and career goals in mind. Research shows that students with no degree intention are less likely than other students to earn degrees (NCES, 2008, Table SA-25). The Community and Technical College System proposes to work with institutions to reduce the number of undecided students so more students reach the academic momentum points that research shows are most likely to result in significant economic gains for students.

Developmental Education. Sixty-three percent of community and technical college students need some form of developmental education (WVCTCS, 2009). Research shows that these students are far less likely to graduate than other students, in part because many of these students do not successfully complete developmental coursework or the first college-level follow-up course, especially if they do not take the follow-up course immediately after completing the developmental coursework (see., e.g., JFF, 2008). With support from a U.S. Department of Education Fund for the Improvement of Postsecondary Education (FIPSE) grant, the Community and Technical College System is working with three institutions to pilot a model developmental education program called Integrated Pathways to Adult Student Success (I-PASS). I-PASS builds upon Washington State's very successful Integrated Basic Education and Skills Training (I-BEST) contextualized learning model, which teaches basic skills in the context of technical skills (Jenkins and Zeidenberg, 2009). Over the next five years, the System plans to work with community and technical colleges to refine the I-PASS model and disseminate it to all West Virginia community and technical colleges. Other models and best practices for accelerating the developmental education process will be explored.

Student Retention/Graduation Best Practices. Research suggests there are numerous best practices that community and technical colleges can implement to improve student retention and graduation rates. These include accelerated programs (see, e.g., Biswas, 2007), curriculum modularization, contextualized learning opportunities, and improved academic and student support services, as well as regular assessments of student engagement. Unfortunately, many best practices can be costly to implement. Through a new ON-RAMP (On Reaching Academic Momentum Points) initiative, the West Virginia Community and Technical College System will research and make institutions aware of retention and graduation best practices and study the results of various institutions' interventions, and facilitate the development of a "culture of evidence" environment based upon the Achieving the Dream model. The aim is to dramatically improve student retention and graduation rates over the next decade. The Community and Technical College System also will work with institutions to define the staffing and financial resources needed to provide effective student retention services and advocate for funding.

Improved Preparation for Employment. The Community and Technical College System will work with community and technical colleges to strengthen relationships with employers and incorporate into programs and curricula the job skills that graduates need to be successful in the workplace. The Community and Technical College System will promote stronger employer-institution partnerships by encouraging employer participation in program and curriculum design, support student learn-and-earn opportunities with employers, and assess the effectiveness of programs by soliciting employer input and analyzing workforce data.

Seamless Transfer. With more than one-third of community and technical college students identifying transfer to a four-year institution as their ultimate education goal (NCES, 2008), it is important to have transfer systems that work. The Community and

Technical College System will work with two- and four-year institutions to streamline transfer by strengthening articulation agreements, building a common course numbering system and program/course taxonomy across community and technical colleges, promoting two- and four-year faculty dialogue and inter-institutional communication about transfer opportunities and requirements. The System also will work with four-year institutions to develop more bachelor of applied science programs so that students with associate of applied science degrees have a viable career pathway.

Goal 2: Workforce Development

Goal No. 2. Provide workforce development programs that meet the demands of West Virginia's employers and enhance West Virginia's economic development efforts.

Objective 2.1. Meet short-term workforce development needs of employers.

Objective 2.2. Support long-term regional economic development efforts.

Introduction

The West Virginia Community and Technical College System will strengthen its capacity to develop a globally competitive workforce that meets the needs of current and future West Virginia businesses. West Virginia has a reputation for possessing a hard-working, dedicated labor force, but future economic success will be contingent on West Virginia's community and technical colleges providing hard-working West Virginians with continuous opportunities to develop the new skills needed to succeed in a rapidly changing world. Therefore, the Community and Technical College System will work with existing businesses that provide good-paying jobs and benefits to ensure they have the highly-skilled employees they need to succeed in the global economy and to assist the West Virginia Development Office and other economic development agencies in attracting new businesses to West Virginia.

Over the last five years, West Virginia's community and technical colleges have made dramatic strides to meet the immediate workforce needs of employers, more than doubling the number of skill set certificate programs and completers and the number of non-credit workforce training programs offered, while increasing training contact hours by more than 75 percent. Over the next five years, the System will take a longer term focus by strengthening existing partnerships and developing new collaborations to meet the future needs of key industries and emerging industries.

Measures

Measuring workforce development activity in any way that is different from current practice is complicated because West Virginia's higher education system does not collect unit-record data on workforce education and training. Despite this complication, the West Virginia Community and Technical College System does propose to measure education and training provided differently, while focusing on three major areas of

activity: workforce education and training provided, career-technical certificate and associate degrees earned, and strategic positioning to meet new and emerging workforce needs.

Education and Training Provided. The Community and Technical College System will measure participants and employers served directly by institutions' workforce education and training programs.

- *Training Contact Hours.* The System will measure the number of workforce training contact hours provided. Training contact hours provide a good approximation of the amount of workforce activity occurring at a community and technical college.
- *Employers Served.* The System will measure the number of employers directly served by workforce education and training during an academic year. The more employers being served, the more likely it is that community and technical colleges are serving local regions effectively.

Career-Technical Degrees Earned. With the primary focus of this master plan being student success, the System will measure the number of students who earn career-technical certificate and associate degrees that provide the skilled workforce required by employers and enhance local economies.

Long-Term Workforce Development. Consistent with the strategic priority of engaging in more long-term workforce development efforts, the System will measure the number of sector partnerships targeting key regional and economic industries. Such partnerships must include multiple businesses, a partnership/steering committee, and meet at least three times per year.

Targets

Over the last five years, WVCTCS has made the greatest strides in the area of workforce development. WVCTCS hopes to continue to improve its service to employers and workers over the next five years. Accordingly, WVCTCS proposes the following targets for the next five years.

- Institutions will provide more than 3.3 million contact hours of training over the next five years, an increase of more than 10 percent.
- Institutions will increase the number of employers directly provided with workforce education and training services by 10 percent.
- More than 13,000 career-technical certificate and associate degrees will be awarded by institutions over the next five years.

- Institutions will have started at least 24 new technical programs to meet new and emerging workforce needs and be active participants in at least 29 thriving regional industry sector partnerships by 2015.

Strategies

Research and Data-Driven Decision-Making. To understand the needs of employers and evaluate their effectiveness in meeting those needs, West Virginia's community and technical colleges must collect and analyze educational and workforce data on an ongoing basis. Despite the increased focus on workforce education and training, WVCTCS does not have a system in place to gather participant-level education and training data. Over the next two years, WVCTCS will develop a workforce educational data collection system that can be used to assess workforce training efforts in the same way traditional for-credit activities are assessed and ultimately be used to develop a better system of funding community and technical colleges. WVCTCS also will work with institutions to analyze existing workforce data and gather information from employers so that institutions do a better job of meeting new and emerging industry needs in their regions. Finally, WVCTCS will work with institutions to evaluate their effectiveness in producing the types of graduates and workers employers want.

Technical Program Development. If West Virginia is to compete globally and build its economic base, it must take advantage of opportunities provided by rapidly expanding and emerging industries, such as health care, green energy, advanced manufacturing and mechatronics. Over the last five years, West Virginia's community colleges have started or expanded 140 new technical programs, which are critical to West Virginia's workforce development efforts. WVCTCS has been able to develop and expand technical programs because the West Virginia Legislature began providing financial support for this activity in 2005. WVCTCS will work to sustain technical program development funding and leverage competitive federal funding to support these activities. WVCTCS will continue working with institutions to identify high growth and emerging industries where the jobs of the future will emerge and provide technical assistance in developing programs to meet those needs.

WV Advance Workforce Development. If West Virginia is going to attract new businesses and support the expansion of existing businesses, its community colleges must be able to provide workforce education and training, an activity traditionally considered a public service and for which state funds were not directly provided. WVCTCS has been able to increase its workforce development efforts dramatically in large part because the West Virginia Legislature began to support these efforts financially through the WV Advance, Workforce Development (House Bill 3009) and Technical Program Development Initiatives. WVCTCS will work to sustain funding for these initiatives and leverage private sector resources so funds are available to provide workforce training.

Regional Industry Sector Partnerships. Many states and regions have moved aggressively to create partnerships to support key regional industries, a practice

championed by the National Governors Association Center for Best Practices and workforce groups (NGA, 2008). The partnerships typically include employers, organized labor, economic and workforce development, education providers and others interested in supporting the growth of a particular sector. At the state level, WVCTCS will promote regional industry sector partnerships with training, development and technical assistance; ensure that decision-making is data-driven and demonstrates a deep understanding of each region's industries; and align resources so that industry needs are met. WVCTCS will also work to promote community and technical college participation in all major economic and workforce development activities.

Seamless Career Pathways. The 21st century economy requires employees to be able to adapt and learn quickly as technologies change. In an effort to develop a more comprehensive approach to life-long learning, career and academic fields need to be integrated to focus on career progression and mobility. WVCTCS will work with institutions to build on existing best practice models, such as tech-prep consortia and the EDGE initiative, develop seamless career pathways for students, and avoid educational redundancy through credit-for-experience and prior-education programs.

Goal 3: Student Access

Goal No. 3. Provide access to affordable, comprehensive community and technical college education in all regions of West Virginia.

Objective 3.1. Provide open access to all students who wish to learn.

Objective 3.2. Provide an affordable education for students.

Objective 3.3. Serve all regions of West Virginia.

Introduction

Higher education is vital to society and individuals. Unfortunately, many people in West Virginia encounter a number of barriers that prevent them from accessing post-secondary education. According to the Lumina Foundation, the most common barriers are unmet financial need, inadequate academic preparation, and insufficient information, guidance, and encouragement (2010). Adults in particular face additional barriers such as inflexible work schedules, childcare needs, transportation needs, and time constraints. It is the goal of the West Virginia Community and Technical College System to help all students overcome the barriers to higher education and ensure greater participation and success.

Measures

The West Virginia Community and Technical College System proposes to use the following measures to evaluate its effectiveness in providing students with access to an affordable postsecondary education:

Total Headcount Enrollment. The System will measure unduplicated annual credit headcount enrollment at institutions at the end of each academic year. Headcount enrollment provides a better picture than does full-time-equivalent enrollment, which is frequently used in higher education financial calculations, of the actual number of students being served.

Adult Headcount Enrollment. The System will measure the annual headcount enrollment of adults age 25 and older. This group historically has been characterized as non-traditional because almost all of them have spent some time in the workforce before attending college and many started but did not complete some form of postsecondary education. Adults typically graduate at lower rates than traditional students, but their participation and success is critical if West Virginia is to move out of last place among the fifty states in terms of postsecondary credential attainment.

Headcount Enrollment from Underserved Counties. The System will measure headcount enrollment in its twelve most underserved counties: Barbour, Braxton, Calhoun, Clay, Hampshire, Lewis, McDowell, Putnam, Randolph, Summers, Upshur, and Wayne. These counties were identified as underserved after considering two- and four-year public higher education participation as a percentage of the population age 18 and above and age 25 to 44.

Net Tuition to Median Family Income Ratio. The System will compare the change in the average West Virginia student's net tuition (the difference between the average resident student's tuition and offsetting federal and state financial aid) with the average West Virginia family's income to determine whether a community and technical college education is costing families more or less over time.

Targets

While increasing enrollment is not going to be the top priority of community and technical colleges over the next five years, the Community and Technical College System still believes that operating institutions that provide both open access and are affordable for students is critical to West Virginia's economic future. Additionally, the System believes that historically underserved groups and regions should be targeted for improved service. Therefore, the System proposes the following targets for the next five years.

- The System will have an annual headcount enrollment of 36,909 students pursuing for-credit instruction.
- Slightly fewer than half (47 percent) of students served will be adults age 25 and older.
- Institutions will increase the number of community and technical college students coming from its twelve most underserved counties by 750 students, a 50 percent increase over five years.

- The System will strive to increase average net tuition rates overall at no faster a rate than the rate at which West Virginia median family income increases.
- The System will increase the student financial aid participation rate by ten percent.

Strategies

Targeted Recruitment. While it is fairly easy to recruit high school students into popular programs like nursing, it is much more difficult to recruit adults, individuals looking for pathways out of poverty, veterans, and other non-traditional students. It is also difficult to recruit students into technical programs like aerospace, diesel technology and mechatronics, even though jobs are readily available for graduates of such programs. While student recruitment will remain primarily an institutional activity, the Community and Technical College System will support that activity with targeted recruitment efforts to attract more non-traditional students, to recruit students into hard-to-fill programs for which jobs are readily available, and to educate social service providers about educational opportunities in which their clients might have an interest. The System also will work with institutions to get former students with some credit hours but no degree to return to school.

Rural College Participation Initiative. Students in some counties attend community and technical colleges at much lower rates than do students in other counties. For low participation counties without a nearby public higher education institution, the Community and Technical College System will launch a Rural College Participation Initiative that promotes early enrollment and credit acquisition among high school students through the College Transition Program, advanced placement, dual credit, and Earn-A-Degree-Graduate-Early (EDGE) programs.

Credit-for-Experience Opportunities. Many West Virginia adults have gained experience that can be converted to college credit through the Board of Governors Associate of Applied Science (AAS) and Apprenticeship-to AAS programs. The Community and Technical College System will work with institutions to promote these credit-for-experience opportunities among qualified individuals.

Financial Aid. Nationally, only about 58 percent of needy community and technical college students, compared to 77 percent of needy four-year students actually completed the Free Application for Federal Student Aid (FAFSA), which determine eligibility for the need-based Pell grant, as well as other need-based financial aid like the West Virginia Higher Education Grant (College Board, 2010). The probable result: Many of these students enroll part time, instead of full time, or work more than 20 hours per week while attending full time, both of which greatly reduce a student's chances of earning a degree. The Community and Technical College System will work with institutions to implement the recommendations contained in the College Board's recent report on successful practices to address the underutilization of financial aid in community colleges, as well as evaluate the effectiveness of state-level need-based

financial aid programs to ensure they are administered in a way that benefits community college students.

Tuition Strategy. To increase consistency in the review and approval of institutional requests for tuition and fee increases, the Community and Technical College System will refine its tuition strategy to take into consideration both student costs and institutional funding needs and provide institutions with predictability in tuition planning. The System also will work to bring the tuition of historically administratively-linked institutions into closer alignment with other community and technical colleges.

Goal 4: Resources

Goal No. 4. Provide resources to meet the needs of community and technical college students and employees.

Objective 4.1. Create a work environment where faculty and staff thrive.

Objective 4.2. Communicate and collaborate effectively with key stakeholders.

Objective 4.3. Construct, renovate, and maintain appropriate facilities.

Objective 4.4. Utilize technology more effectively and efficiently.

Introduction

Community and technical colleges make their greatest contribution by growing a talented, skilled citizenry and creating opportunities for West Virginians. In order to accomplish this, community and technical colleges must develop strategies to make the best use of their own resources, including faculty and staff, facilities, and technology, as well as the resources of key stakeholders. In addition, community and technical colleges must have adequate financial resources to serve students effectively. It, therefore, is a goal of the West Virginia Community and Technical College System to garner the resources that are necessary to educate students and use all available resources as efficiently and effectively as possible.

Measures

The West Virginia Community and Technical College System proposes to use the following measures to evaluate its resources for meeting the needs of community and technical college students and employees:

Competitive External Funding. The System will measure the amount of new competitive external funding leveraged from external sources, including the federal government, foundations, and businesses. The more competitive external funding leveraged, the more likely it is that the System and its institutions are engaged in the types of cutting-edge activities for which grant funds typically are provided and working collaboratively within and outside their communities.

Cost Savings. The System will measure the amount of money saved by institutions as a result of various cost-saving activities to evaluate whether institutions are good stewards of state appropriations, student tuition and fees, and other funds.

Faculty Salaries as a Percentage of Market Salaries. The System will measure West Virginia community and technical college faculty salaries as a percentage of national average community and technical college faculty salaries as reported by College and University Professional Association for Human Resources (CUPA-HR), Southern Regional Education Board (SREB), and other credible sources of salary data.

Staff Salaries as a Percentage of Market Salaries and Classified Staff Salary Schedule. The System will measure West Virginia community and technology college non-classified staff salaries as a percentage of market salaries and classified staff salaries as a percentage of the classified staff salary schedule.

Facilities Construction, Renovation, and Maintenance Funding. The System will measure the amount of funding it is able to leverage from bonding, one-time appropriations, and other sources to evaluate its effectiveness in generating revenue for facilities construction and renovation, as well as maintenance projects.

Distance Learning. The System will measure the number of credit hours earned through online and hybrid courses.

Targets

Over the next five years, the West Virginia Community and Technical College System proposes to leverage more non-state-appropriated funding and operate more efficiently, while working with West Virginia political leaders to leverage additional resources for capital and operating expenditures and expand the use of technology. The following are the major targets:

- The System will generate \$10 million in *competitive* federal and foundation funding for West Virginia community and technical colleges.
- The System and its institutions will generate \$2.5 million in documented cost savings by implementing efficiencies measures.
- The System will reduce the overall funding gap between West Virginia community and technical colleges and their peer community and technical colleges.
- The System will reduce the gap between West Virginia community and technical college faculty salaries and community and technical college faculty salaries nationally.
- The System will fund the salary schedule for classified employees.

- The System and its institutions will increase the number of credit hours earned through online and hybrid courses by 10 percent.

Strategies

Cost Containment. A 2007 study conducted by Texas A&M University Department of Student Financial Aid found that financial barriers are the largest obstacles to college enrollment. Given that community and technical college students as a whole have greater financial needs than do other postsecondary students, the West Virginia Community and Technical College System will work with institutions to keep student costs as low as possible by coordinating the activities of an efficiencies working group to identify and implement institutional financial efficiencies and examine opportunities to reduce student costs by doing such things as controlling textbook costs, offering more accelerated and online learning opportunities, facilitating carpooling and the provision of child care services.

Building Construction/Renovation/Maintenance. To offer quality instruction, West Virginia's community and technical colleges need facilities: new facilities to provide comprehensive community and technical college services and/or new technical programs where they previously have not been provided, renovated facilities better able to meet the needs of 21st century students, and well-maintained facilities to reduce the need for costly construction and renovation projects. Over the next five years, the Community and Technical College System and its institutions will complete \$78 million in bond-funded construction and renovation projects, as well as the construction of two advanced technology centers; develop prioritized lists of capital construction and renovation projects for future bond issues and of maintenance projects for one-time funding; and implement building design principles that reduce energy consumption.

Shared Facilities and Other Resources. Community and technical colleges benefit from sharing resources with county public school systems, four-year institutions, and other organizations, especially in rural areas that otherwise might be underserved by community and technical colleges. The Community and Technical College System will work with institutions to develop new arrangements, like the Southern West Virginia Community and Technical College, Lincoln County High School and Erma Byrd Higher Education Center partnerships to better serve West Virginia students and employers.

Technology Use. Technology can enhance student life on a college campus, provide courses and programs to students in rural areas, and allow community and technical colleges to operate more efficiently. The Community and Technical College System will improve technology use by coordinating efforts to ensure that all community and technical college campuses have the capability to provide distance education and that all general education courses are available online. The System also will work with community and technical colleges to make better use of student, financial, and other data systems that improve efficiencies and enhance student services.

External Collaboration. To create a seamless educational and career pathway for students, the West Virginia Community and Technical College System must collaborate effectively with the public education system, particularly career and technical education and adult basic education providers. Through initiatives like Tech Prep and Earn-A-Degree-Graduate-Early (EDGE), the System has built strong relationships with public education providers. Over the next five years, the System will strengthen those relationships by working with public education providers to implement the jointly developed Career and Technical Programs of Study Design Framework, which involves the development of college and career readiness standards, non-duplicative sequences of secondary and postsecondary courses within programs of study, credit transfer agreements, effective teaching and learning strategies, guidance counseling, and assessment. The System also will promote the expansion of dual enrollment programs to career and technical education students with the goals of decreasing high school dropouts and increasing college enrollment, persistence, and completion. The Dual Enrollment Initiative will target career and technical education students from low-income families and other groups that typically are less likely than their peers to attend college given research that suggests that such students receive a greater benefit from dual enrollment than do their peers (Karp et al., 2008).

Internal Collaboration. Collaborative meetings across institutions will promote the generation of new ideas, as well as provide a checks and balance system between the institutions. WVCTCS will also benefit from increased communication and collaboration within each institution. Oftentimes, academic and workforce units within community and technical colleges have little to no interaction or overlap. This intra-institutional collaboration should take place within departments, but also across diverse areas and departments of the institutions. WVCTCS will work with institutions to 1) establish working groups that facilitate regular meetings and telephone conferences with presidents (Community and Technical College Advisory Council), chief financial officers, chief academic officers, financial aid officers, and others, and 2) promote closer collaboration between academic and workforce units within community and technical colleges.

REFERENCES CITED

- American Association of Community Colleges. (2010). "Democracy's Colleges: Call to Action" *American Association of Community Colleges*. Retrieved from http://www.aacc.nche.edu/newsevents/News/articles/Documents/callaction_04202010.pdf
- Aslanian, C., and N. Giles. (2008). "Hindsight, Foresight, Insight: How Today's Adult Learning Trends Drive Tomorrow's Opportunities" Aslanian Group. Retrieved from <http://www.kentuckycan.org/AdultLearnerTrends.pdf>
- Biswas, R. R. (2007). *Accelerating remedial math education: How institutional innovation and state policy interact*. Boston: Jobs for the Future. Retrieved from <http://www.achievingthedream.org/pdfs/publicpolicy/RemedialMath.pdf>
- College Board. (2010, May). *The financial aid challenge: Successful practices that address the underutilization of financial aid in community colleges*. New York: College Board. Retrieved from http://advocacy.collegeboard.org/sites/default/files/10b_1790_FAFSA_Exec_Report_WEB_100517.pdf
- Collins, M. L. (2009). "Setting up success in developmental education: How state policy can help community colleges improve student outcomes" Boston: Jobs for the Future. Retrieved from <http://www.achievingthedream.org/Portal/Modules/aeb219f8-58b2-43fb-8cf7-ee42a3dee72a.asset?>
- Hammond, G.W. and A. Hoffer (March 2010). "From higher education to work in West Virginia 2008." Retrieved from <http://www.be.wvu.edu/bber/pdfs/BBER-2010-08.pdf>
- Horn, L., and Nevill, S. (2006, June). *Profile of Undergraduates in U.S. Postsecondary Education Institutions: 2003–04, With a Special Analysis of Community College Students, Statistical Analysis Report*. National Center for Education Statistics. Retrieved from http://nces.ed.gov/pubs2006/2006184_rev.pdf
- Jenkins, D., Zeidenberg, M., and Kienzl, G. (2009, May). *Educational outcomes of I-BEST Washington State Community and Technical College System's integrated basic education and skills training program: Findings from a multivariate analysis*. CCRC Working Paper No. 16. New York: Columbia University, Teachers College, Community College Research Center. Retrieved from http://www.sbctc.ctc.edu/college/abepds/multivariateanalysis_workingpaper16_may2009.pdf
- JFF [Jobs for the Future & National Council for Workforce Education]. (2008). "Test Drive: Six States Pilot Better Ways to Measure and Compare Community College Performance." Retrieved from <http://www.policyarchive.org/handle/10207/8666>
- Karp, M. and Hughes, K. (2008). "Study: Dual Enrollment Can Benefit a Broad Range of Students" *Community College Research Center*. Retrieved from http://www.actonline.org/uploadedFiles/Publications_and_Online_Media/files/Octstudytheme.pdf
- Lumina Foundation for Education. (2009). *Policy Brief – West Virginia*. Retrieved from www.luminafoundation.org/research/state_data/policy_briefs/Policy_Brief-West_Virginia.pdf
- National Center for Education Statistics. (2008). "Community Colleges: Special Supplement to The Condition of Education 2008" *U.S. Department of Education*. Retrieved from <http://nces.ed.gov/programs/coe/2008/analysis/2008033.pdf>

- NGA [National Governors' Association] (2008). Accelerating state adoption of sector strategies: An eleven-state project to promote regional solutions to worker and employer needs. Washington, DC: NGA. Retrieved from <http://sectorstrategies.org/system/files/AcceleratingSectorStrategies-Phase1Report.pdf>
- Obama, B. (2009). "Remarks of President Barack Obama – as prepared for delivery address to joint session of congress." *The White House*. Retrieved from http://www.whitehouse.gov/the_press_office/remarks-of-president-barack-obama-address-to-joint-session-of-congress/
- Prince, D., and D. Jenkins (2005). "Building Pathways to Success for Low-Skill Adult Students: Lessons for Community College Policy and Practice from a Statewide Longitudinal Tracking Study" *Community College Research Center*. Retrieved from <http://ccrc.tc.columbia.edu/Publication.asp?UID=204>
- Rademacher, I. (2002). "Working with Value: Industry-Specific Approaches to Workforce Development. A Synthesis of Findings" *The Aspen Institute*. Retrieved from <http://eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED465097>
- WorkForce West Virginia (2007). "State Plan for Workforce Investment for the State of West Virginia" *WorkForce West Virginia*. Retrieved from <https://www.workforcewv.org/logos/5-Year-Plan.pdf>
- WSBCTC [Washington State Board of Community and Technical Colleges]. (2005). Building Pathways to Success for Low-Skill Adult Students: Lessons for Community College Policy and Practice from a Longitudinal Student Tracking Study. Olympia, WA: Author. Retrieved from http://www.sbctc.edu/docs/education/ford_bridges/bldg_pathways_to_success_for_low-skilled_adult_stdts-brief.pdf
- WVCTCS [West Virginia Community and Technical College System]. (2009). West Virginia Higher Education Report Card, 2009. Retrieved from <https://www.wvhepc.org/commission/WebAttachment1.pdf>