Community Colleges Get to Work
Adopting Work-Based Learning in Partnership with Health Care Employers

By O. Steven Quimby and Kimberly R. Rogers

Part of a series of reports and practice briefs on advancing and rewarding the skill and career development of incumbent workers providing care and services on the front lines of our health and health care systems.

Robert Wood Johnson Foundation

JOBS FOR THE FUTURE
Jobs to Careers explores new ways to help frontline health care workers get the skills they need to provide quality care and build a sustainable career. It helps health care providers improve the quality of patient care and health services by building the skills and careers of their frontline employees.

Through Jobs to Careers, health care employers build strong partnerships with education institutions and other organizations to change the way frontline employees are trained, rewarded, and advanced. Career paths are developed and made readily available to frontline employees. Employer and education partners make systematic changes that better recognize the needs of working adults and that improve access to and success in skill-building programs.

A hallmark of Jobs to Careers is work-based learning: frontline employees master occupational and academic skills in the course of completing their jobs tasks and fulfilling their day-to-day responsibilities. While working full time, frontline employees enter college and earn academic credit for workplace training. Other learning approaches in Jobs to Careers include technology-enabled, experience-based, and traditional worksite and off-site learning.

To realize the unique Jobs to Careers approach to learning, employers and educators implement systems changes, such as:

- At the workplace: Developing new job positions and responsibilities; deeply involving supervisors in employee training and career development; and offering paid release time, pre-paid tuition assistance, job coaching, and mentoring.
- At the educational institution: Providing college credit for work-based learning, prior learning, and entry-level health care credentials; offering accelerated and part-time degree and certificate programs; contextualizing college preparatory math and English courses to health care concepts and job tasks; and appointing professional staff from health care employers to be adjunct college faculty.

Jobs to Careers moves everyone forward to a healthier future. Frontline employees receive rewards for building skills and expanding knowledge necessary for their current jobs and qualifying them to advance to new positions. Employers build and retain talented and committed employees, while bolstering a workplace culture that supports professional development, mentorship, and collaboration across the entire health care team. And health care consumers receive high-quality care and services, delivered by a high-quality workforce.

Jobs to Careers is a $15.8 million initiative of the Robert Wood Johnson Foundation and the Hitachi Foundation, with additional support from the U.S. Department of Labor. Jobs for the Future manages the initiative. Seventeen partnerships representing hospitals, community health centers, long-term care, and behavioral health received multiyear Jobs to Careers grants.

For more information on Jobs to Careers:

Maria Flynn
Director, Jobs to Careers
617.728.4446
mflynn@jff.org
www.jobs2careers.org
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About the Authors

O. Steven Quimby is a consultant to Jobs for the Future. He provides technical assistance to Jobs to Careers sites, develops tools for Jobs to Careers programs, and helps document the initiative’s findings. Dr. Quimby has more than 15 years of experience in labor market research, program operation, and program evaluation in the public and nonprofit sectors. As director of planning and policy research for the Merrimack Valley Workforce Investment Board, he authored several studies on local labor markets and on the impact of “grow your own” workforce development strategies.

Kimberly R. Rogers is program director for policy, performance, and budget with Jobs for the Future’s Building Economic Opportunity Group. Dr. Rogers has nearly 10 years of experience in the areas of community colleges and nontraditional learners. Before joining JFF, Dr. Rogers was an assistant professor of higher education administration at the State University of New York at Buffalo, where her research focused on community colleges, adult learners, institutional financing, and student financial aid. She has taught at the undergraduate and graduate levels in the United States and France.

Acknowledgments

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The nation's rising demand for health care is creating a need for more frontline workers who provide direct services to patients. Effective training programs for medical assistants, social workers, receptionists, and those in other frontline occupations are critical for ensuring access to quality care.

Community colleges are an important provider of education and skills training for the frontline health care workforce, who are overwhelmingly low-income women from minority backgrounds and who face many obstacles to career and education advancement. Recognizing the need for new education models, a number of community colleges have joined with health care employers in a nationwide effort to change the way frontline workers are trained, rewarded, and advanced in their careers.

The six-year, $15.8 million Jobs to Careers initiative has created 17 partnerships of health care employers and education institutions to deliver “work-based learning” strategies that better meet the needs of frontline employees. Work-based learning programs combine traditional courses, often held at the workplace, with on-the-job practice of relevant skills. Rather than taking time off to further their education, employees do much of their learning while at work in a supportive environment of peers pursuing similar goals.

Work-based learning programs have helped frontline employees gain skills, advance in their careers, save money on tuition, earn more money from better jobs, and often continue their education beyond their initial training. Participating employers can improve the quality of their services while boosting morale, reducing turnover, and spending less time, money, and effort on recruitment.

Community colleges, which collaborate closely with employers to develop and deliver work-based learning, are also winners in these partnerships. Among their many benefits, they can:

- Expand access to quality, affordable education and training in high-demand fields;
- Bridge the credit and noncredit sides of the college;
- Attract students who are motivated and well supported and thus better able to complete a credential or a degree;
- Achieve these outcomes without increasing the long-term burden on facilities or faculty; and
- Increase revenue by increasing enrollment and per capita funding.

Two Jobs to Careers projects with strong community college partners illustrate the benefits that colleges stand to gain by engaging in work-based learning programs.

Bristol Community College & Stanley Street Treatment and Resources, Fall River, Massachusetts: Bristol Community College has partnered with SSTAR, a nonprofit agency specializing in substance abuse treatment, to provide the education needed to advance frontline staff to credentialed counseling positions. During the three-year project, receptionists, administrative assistants, and other staff received training and support to become certified addictions counselors or certified alcohol and drug abuse counselors. As a result of the program, frontline employees earned higher pay and the agency obtained higher health care reimbursements from the state. The college benefited by adding six adjunct faculty members who were SSTAR employees with years of clinical expertise. In addition, the work-based-learning model enabled the college to enhance its course offerings and provide new pathways to family-sustaining careers.

Leeward Community College & Wai’anae Coast Comprehensive Health Center, Wai’anae, Hawaii: On the Hawaiian island of Oahu, Leeward Community College partnered with Wai’anae Coast Comprehensive Health Center to improve the skills of medical receptionists and medical assistants. As a result of Jobs to Careers, frontline employees earned college credit and pay increases at work. Supervisors were trained as preceptors, tasked with teaching frontline employees on the job and in the classroom about the practical knowledge and skills needed to perform well at work. Leeward created a unified office for workforce development, improved student registration process, redesigned curricula to lower barriers for new students seeking to enter targeted jobs in health care, and increased enrollment in health care programs. In an effort to expand the Jobs to Careers model, Leeward is exploring other fields of study to incorporate work-based learning.

CHANGING SYSTEMS TO IMPLEMENT WORK-BASED LEARNING

Work-based learning represents a departure from traditional academic forms of education, and even from continuing education programs. Education providers substantially alter how and where they deliver instruction, how they partner with
employers, and how they are funded. To craft successful work-based learning programs, education providers need to:

- Develop strong relationships with employers;
- Appoint workplace supervisors or job coaches as adjunct faculty in order to facilitate credentialing of work-based learning;
- Address barriers to awarding credit for work-based learning, which derive from internal operations and external entities, including state or professional regulatory boards; and
- Accelerate the pace of learning and of attainment of employer-recognized credentials.

**SUSTAINING WORK-BASED LEARNING IN COMMUNITY COLLEGES**

*Jobs to Careers* has generated significant knowledge about how community colleges can develop and sustain work-based learning. Community colleges should consider infusing traditional courses with work-based learning for health care programs and other fields. Colleges and employers need to find alternative and diverse funding sources to sustain these innovations over the long term. The result will be stronger businesses, stronger local economies, better paths to family-supporting incomes, and a healthier nation.
Demand for high-quality health care is on the rise, and it will continue rising as the U.S. population ages over the next several decades. While the need for physicians, nurses, and high-paid specialists captures public attention, the size of the low-wage frontline workforce—such as medical assistants, social workers, and home health aides—is growing more rapidly. Whether the nation can ensure quality care depends on our capacity to develop effective training programs for frontline occupations.

Community colleges are an important provider of education and skills training for the frontline health care workforce. They offer an array of training programs for careers in nursing and allied health professions and are forging strong connections with regional health care employers to provide customized training. Recognizing the need for new educational models, community colleges are also joining with health care employers in a nationwide effort to change the way frontline employees are trained, rewarded, and advanced in their careers. Launched in 2006, the six-year, $15.8 million Jobs to Careers initiative has created 17 partnerships of health care employers and education institutions to deliver “work-based learning” strategies that better meet the needs of frontline employees.

Jobs to Careers projects also address other major barriers to advancement facing frontline employees, most of whom are low-income, women, or minorities and have low levels of basic education. They have limited time for formal education outside of work hours because they are either raising children on their own or working a second job to make ends meet. Many lack the confidence to return to school as adults.

Work-based learning programs benefit frontline employees by helping them gain skills, advance their careers, save tuition, earn higher wages at better jobs, and continue their education to obtain higher degrees and credentials. The value for employers is clear as well. They can improve the quality of the services they deliver while boosting morale, reducing turnover, and investing less time, money, and effort on recruitment. Participating supervisors improve their skills and learn how to better assess and coach their workers.

Community colleges, which collaborate closely with employers to develop and deliver Jobs to Careers training, also reap many important benefits from work-based
learning partnerships. Over time, colleges embarking on these efforts can expect to:

- Expand access to quality, affordable education and training in high-demand fields;
- Attract students who are motivated and well-supported, and thus better able to complete a credential or a degree;
- Achieve these outcomes without significantly increasing the long-term burden on facilities or faculty after startup costs are addressed; and
- Increase revenue by increasing enrollment and per capita funding, which is particularly important in difficult economic times.

The following pages describe the experiences of two community colleges involved in Jobs to Careers in delivering work-based learning. Bristol Community College partners with Stanley Street Treatment and Resources, a drug abuse treatment facility in southeastern Massachusetts. Leeward Community College partners with Wa’ianae Coast Comprehensive Health Center in Hawaii. The colleges have learned valuable lessons on overcoming challenges and sustaining their work-based learning strategies after their Jobs to Careers grants concluded.

Bristol Community College & Stanley Street Treatment and Resources

*Fall River, Massachusetts*

In southeastern Massachusetts, Bristol Community College partnered with Stanley Street Treatment and Resources to advance the careers of frontline employees. Together, they trained SSTAR receptionists, administrative assistants, and other staff to become credentialed addictions treatment professionals. With more credentialed professionals on staff, SSTAR can treat more inpatient clients. And with a lower counselor-patient ratio, SSTAR has secured higher health care reimbursements from Massachusetts, which are calculated by the number of patients served by certified staff.

Fifty-one frontline workers participated in various training activities through *Jobs to Careers*. Twenty employees completed a 270-hour, six-month training to become addictions counselors. SSTAR promoted five to full-time counselor positions, with annual raises above the agency’s average. They prepared for the state’s certified addictions counselor exam by completing courses on counseling techniques, treatment planning, and psychopharmacology, along with six months of upgrading group facilitation skills for therapy sessions in the workplace. All workers completing the CAC test received fifteen credits from Bristol Community College. Six also passed a more rigorous test to become certified alcohol and drug abuse counselors; the test consists of an oral exam and the presentation of a case study for a group of professional counselors.

“The certifications opened up opportunities for all of them,” said Pat Ensellem, SSTAR’s chief operations officer. Employees who started working in addictions treatment received an immediate $1-per-hour wage raise. Counselors who chose to work extra hours—a significant need, given SSTAR’s shortage of certified counselors—earned a much higher hourly wage for overtime.

For many frontline employees, becoming a certified addictions counselor provided the
Three students from the first Jobs to Careers cohort continued their education or expressed interest in doing so; four are taking additional courses toward an Associate's degree in human services from Bristol Community College. Some would like to enter nursing programs or become case managers at the Massachusetts Department of Social Services or other state agencies. Some will need a Master's degree to qualify for the positions they aspire to. Given the variety of educational goals, academic readiness, and individual needs, the timing of participants' attainment of college degrees has varied widely.

Bristol Community College worked with SSTAR supervisors to deliver the curricula on line and in the classroom. For example, a Bristol faculty member and SSTAR supervisors and staff jointly developed a course, “Changing Substance Abuse Behaviors through the Group Process.” In developing the course, college and SSTAR representatives surveyed clients and entry-level workers who lead client groups; the goal was to gather feedback on the current knowledge and skills of group leaders and on the qualities that make an effective group leader. As a result, Bristol included in the course specific training in group dynamics and group process, along with the theoretical framework. Additionally, the college developed modules to address specific needs for inpatient psycho-education groups dealing with depression, relapse prevention, and other issues. The course was approved for four credits and offered alongside other psychology courses.

Staff from Bristol Community College and SSTAR also collaborated in developing a course to replace the college’s more focused alcohol-abuse course. The new course covered a broader understanding of addictions and treatment models for them. For the group process and addictions courses, SSTAR staff played a key role in developing the curriculum, learning objectives, and teaching methodology. In addition, SSTAR staff on the BCC faculty participated in a project to redesign the introduction to psychology.

SSTAR staff continued to serve as BCC faculty after the Jobs to Careers project funding ended. They were qualified to teach all psychology courses at the college. Some SSTAR faculty were also approved to teach in human services and sociology.

The college faculty taught the classroom component for the group process course at the SSTAR facility in Fall River, Massachusetts, as well as at its facility in

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<th>Training Opportunities for Frontline Workers</th>
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<tr>
<td>• Certified addictions counselors</td>
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<td>• Certified alcohol and drug abuse counselors</td>
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<th>Outcomes</th>
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<td>• 51 frontline workers participated in the training program.</td>
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<td>• 20 employees became certified treatment professionals for counseling those with substance abuse issues. Eight among this group also obtained further certification in ARISE, a new drug treatment model. Two employees who did not earn counseling certifications earned ARISE credentials.</td>
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<td>• 27 employees either continued their education or expressed interest in doing so; four enrolled at Bristol Community College. Others enrolled in various college programs, such as online courses at University of Phoenix, or were applying or making plans for possible future educational work.</td>
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<th>Benefits to the Community College</th>
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<tr>
<td>• Increased student enrollment</td>
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<td>• Increased revenue</td>
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<td>• Expanded number of qualified faculty with up-to-date professional experience</td>
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<td>• Provided a catalyst to explore a work-based learning program in early childhood education</td>
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<td>• Enrolled adults who thought they were not “college material” yet excelled in college courses</td>
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North Kingstown, Rhode Island. Training participants were evaluated on site by supervisors and an external expert on certain dimensions of group skills facilitation. Supervisors provided clinical supervision in group and one-to-one settings. Counselors in training shadowed current counselors. In addition, BCC faculty facilitated an online component to the course, which provided opportunities for workers to complete reading and participate in online class discussions at a place and time that was more convenient.

Everyday job tasks provided learning opportunities as well. Students wrote and reflected in journals on their experiences in assessing and diagnosing patients and running group therapy sessions. They also wrote about the role they played with their SSTAR supervisors and BCC faculty, and they participated in facilitated discussions to address job issues, either encountered or observed, in light of topics covered in class.

Frontline employees reported that work-based learning made their lives easier. They saved valuable time by not having to travel to and from the college campus. Attending class with other older students helped them feel comfortable asking questions and contributing to discussions. Student-employees also reported that they had already been performing many of the day-to-day job tasks for which they were being trained. Through Jobs to Careers, they received recognition through new jobs and increased salaries.

The college reaped important benefits from its connection with SSTAR, according to Fred Rocco, BCC’s dean of behavioral and social sciences. From a business perspective, BCC increased enrollment, generating revenue to provide more courses and more levels of instruction. The new students had not thought they were “college material,” because of past negative academic experiences, said Rocco. Not only did they gain the self-confidence to attend college, but they excelled in their courses. The college benefited from having more highly qualified students.

By collaborating with SSTAR, BCC could identify and hire new instructors with invaluable “real-world” credentials for the behavioral and social sciences division, according to Rocco. BCC employed SSTAR supervisors as adjunct faculty—and discovered that their experiences offered important insights to students in traditional classrooms, not just to their own employees. Several SSTAR supervisors continued teaching in human services, sociology, psychology, and nursing courses at BCC, eight of them serving as adjunct faculty.

BCC became fully committed to the work-based learning model. The partnership with SSTAR demonstrated how the college can tailor work-based learning methodologies to other occupations. BCC started to embed work-based learning in an Associate’s degree program for health information specialists, according to Rocco. The college was completely redesigning the program so that it could be offered as modules—either on line or in the workplace—that lead to specific credentials and skill sets (e.g., medical coder). In the past, BCC had credit and noncredit versions of medical coding. Going forward it will offer a single program for credit or noncredit, which can be directly applied toward the Associate’s degree. BCC hired new faculty and a new program chair from the health information workforce to help design this curriculum.

Bristol Community College began exploring how to use work-based learning in an Associate’s degree program for early childhood educators, according to Rocco. The college would like to create a child development course for day care providers that would tap on-the-job skills and experience and be offered at the centers where they work.
Leeward Community College & Wai’anae Coast Comprehensive Health Center

Wai’anae, Hawaii

On the Hawaiian island of Oahu, Leeward Community College partners with Wai’anae Coast Comprehensive Health Center to improve the skills of medical receptionists and medical assistants. With more than 450 employees, the health center provides medical, dental, emergency, behavioral, and traditional healing practices to 25,000 predominantly low-income Native Hawaiians each year.

Wai’anae developed a “graduated competency program” for all staff members to tie their ongoing need for professional development in core competencies to the center’s business model for increasing revenues. Through this program, employees are expected to learn critical competencies to improve their performance. The health center intends to tie annual performance reviews and pay increases in part to the mastery of these competencies.

Leeward Community College has offered college-level training for the health center for more than 15 years. With the three-year grant from Jobs to Careers, Leeward expanded the continuum of training services at the Wai’anae facility. The partnership enrolled 83 frontline employees in work-based learning covering word processing, medical office procedures, medical terminology, electronic medical records, quality and performance, health and safety, business services, and customer service. The Jobs to Careers program consisted of five for-credit courses offered through Leeward, as well as a number of additional noncredit courses covering competencies and continuing education requirements that meet the needs of Wai’anae.

Frontline employees who completed the training received 14 college credits that can be used toward an Associate’s degree in business technology. They also received up to a 10 percent raise and qualified for career advancement.

Leeward and Wai’anae collaborated closely in developing every aspect of the Jobs to Careers program.
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faculty designed and taught the college-credit courses, while senior administrators at the health center taught the noncredit courses.

In addition, college and health center staff collaborated on assessing the skills and college preparedness of frontline employees. Through the KeyTrain online assessment tool, workers were evaluated on their reading comprehension, writing, listening, and math skills. College and health center staff established the passing scores for each discipline. Employees who did not earn a passing score were placed in a customizable KeyTrain career readiness training program to improve their basic skills. Leeward and Wai‘anae staff also aligned the KeyTrain testing levels to the COMPASS college entrance exam, enabling frontline employees who passed KeyTrain to be exempt from taking the COMPASS exam and pre-training instruction.

The Jobs to Careers project also provided work-based learning opportunities for Wai‘anae supervisors. The goal was to enhance their supervisory and job-coaching skills, as well as to preview the training that their employees would receive. Doing so ensured that supervisors understood the coursework and learned how they can best guide and assess the people working for them. The supervisors were trained as preceptors, tasked with teaching frontline employees on the job and in the classroom about the practical knowledge and skills needed to perform well at work. For each course, Leeward identified the learning objectives and competencies to be taught at work or in a traditional lecture or online. (See the appendix for this breakdown for BUSN 121, Introduction to Word Processing. The college used a similar document to divide teaching tasks between preceptors and college faculty.)

To expand the Jobs to Careers model, Leeward began exploring other fields of study to incorporate work-based learning. For example, the college has begun modifying its medical receptionist curriculum to meet the needs of front-desk staff at area hospitals. In addition, the college is developing policies to award credit for experiential learning documented in student portfolios. The University of Hawaii system, of which Leeward is a part, is holding a broader discussion on how to provide credit for experiential learning. The system is looking for ways to articulate credit to all of the community colleges and to the University of Hawaii Bachelor’s degree programs.

The college also merged the offices of continuing education and career and technical education to create a unified office for workforce development. This made it possible to restructure programs, including those using work-based learning, and to provide a revenue stream for workforce development initiatives. Leeward also improved the registration process so that staff can better address the unique questions and concerns of nontraditional students, including working adults.

“Because of the Jobs to Careers experience and work-based learning, Leeward wants to continue offering these types of programs in the future,” said Kay Ono, coordinator of the college’s Business Technology Program.

The economic downturn severely affected Wai‘anae Coast Comprehensive Health Center and its strategy for continuing work-based learning after the Jobs to Careers grant ends. The college used a variety of flexible funds to pay for staff time spent developing and implementing the new programs. In the long run, the college would like the state to pay for these positions.
Through Jobs to Careers, Austin Community College in Texas and Workforce Solutions-Capital Area Workforce Board collaborated to provide work-based learning opportunities for patient care technicians and patient access representatives at St. David’s Health Care and the Seton Family of Hospitals. Patient care technicians (sometimes referred to as certified nurse assistants) assist medical staff in providing basic patient care—for example, by recording vital signs, collecting specimens, and recording patient conditions. Patient access representatives perform administrative and customer service tasks, such as scheduling appointments, acquiring billing information to submit insurance claims, and maintaining phone coverage.

Partnering with all four hospitals within the two health systems, the college integrated work-based learning into acute-care training and developed modules that include online checklists to assess competencies. The college-trained hospital supervisors, including registered nurses and Master’s-prepared nurses, on how to use the modules and checklists to document on-the-job learning and mastery of competencies by workers. Upon completion of all competencies, frontline employees earned academic credit. The hospital systems had planned to promote successful employees to higher-level positions, but the plan was put on hold due to the economic downturn.

“The bulk of the time in work-based learning instruction is focusing only on what we know the employee doesn’t already know, as opposed to forcing them to sit through a traditional college program that covers content whether they know it or not,” according to Kirk White, interim executive dean for continuing education at Austin Community College.

**Training Opportunities for Frontline Workers**

- Patient care technicians
- Patient access representatives

**Outcomes**

- 50 frontline workers participated in the training program, including 37 in the clinical track.
- 23 completed, including 11 in the patient access representative track.
- None completed the entire track within the program period.
- The site has not tracked whether any participants have gone on to additional college.
- Some program completers informally mentored new entrants.

**Benefits to the Community College**

- The college served new students and helped meet the workforce development needs of two major hospital systems without using campus classrooms or lab space. By freeing this classroom and lab space, the college could schedule additional classes, serve more students, and generate more revenue.
- The college reduced program length by using the workplace as the instruction site. Frontline employees mastered a significant portion of the competencies required for completing the curriculum through work-based learning, and they did so faster than they would have in traditional courses.
- The college reduced the amount of classroom time needed to complete each course by credentialing the hospitals’ nursing staff to work as adjunct faculty and job coaches. This allowed the college to award credit for on-the-job learning toward the completion of learning objectives.
Most community colleges want to boost enrollment in health-care-related academic programs. But to do so, they need more classroom space, more instructors who are well qualified, and more clinical education sites. With proper planning, work-based learning can address these needs at a relatively low cost.

*Jobs to Careers* has demonstrated how work-based learning can yield significant benefits for community colleges. Participating colleges have increased enrollment in high-quality, affordable education and career training without increasing the burden on faculty and facilities. They have gained qualified adjunct faculty paid by employers. And they have gained new students who are motivated to complete a credential.

**Work-based learning increases the number of students that health care education programs can serve.**

Community colleges are constrained in how many students they can serve in health care programs. Health care courses usually require credentialed faculty (e.g., a Master’s Degree in Nursing) who are also in high demand as service providers. In addition, lab space needed for health care courses is in short supply and subject to multiple demands. Finally, the college may lose out on prospective students who are motivated to learn but cannot juggle work and attend class if they have to spend time commuting to campus.

Work-based learning addresses these critical barriers to college for frontline employees. Using the worksite as a primary source of learning reduces class time, travel time, and travel costs. Work-based learning also enables students to advance through a sequence of courses leading to a certificate or degree more quickly. For example, the *Jobs to Careers* project at the Charles B. Wang Community Health Center in New York City has used the work-based learning approach to reduce the amount of classroom instruction from 168 hours to 111 hours.

Community colleges should consider passing on some cost savings to students so that they can stretch employer-provided tuition reimbursements to cover more education. When colleges better meet the needs of students, student satisfaction increases. This is an increasingly important metric for community colleges, now that students can choose among an expanding array of continuing education providers.

**Work-based learning increases the number of students who are prepared and motivated to succeed in community college credential and degree programs.**

Entrance into nursing programs and many other health care fields is highly competitive. This creates significant obstacles for frontline health care workers who have had negative experiences with schooling or have been out of school for years. Work-based learning eases the transition back into school and makes completion of an education goal more likely. Moreover, frontline employees prove that they can complete community college work and balance education with work and family obligations. Such students are good candidates for admission to degree programs because they are likely to succeed in school—improving the outcomes on which community colleges and their programs are measured.
Work-based learning improves education outcomes without significantly increasing the burden on college facilities or faculty.

One of the critical barriers to expanding community college programs in nursing and other health care fields is the lack of qualified faculty. Using qualified employer staff as adjunct faculty enables a college to serve more students without hiring more full-time instructors. Most employers participating in Jobs to Careers have staff who have the credentials to serve as adjunct faculty.

Appointing health care supervisors or job coaches as adjunct faculty makes it easier for the college to document when frontline employees master critical competencies. Austin Community College, Bristol Community College, and Leeward Community College experienced this firsthand. Nonetheless, hiring health care staff as adjuncts takes careful planning and implementation. Adjuncts need training for their new jobs. Similarly, college faculty need instruction for their new responsibilities as program coordinators. And college faculty and health care staff should expect to devote several months to planning the implementation of work-based learning. This process should involve college administrators who can help address such issues as faculty supervision, registration, and accreditation.

Work-based learning generates revenue, which education institutions need in difficult economic times.

Work-based learning can help colleges increase enrollment and per capita funding. Increasing the number of students served through work-based learning can translate into income for the institution because many state funding mechanisms reward community colleges for serving more students. Just as important, work-based learning can reduce the cost of providing instruction for each course by delivering a significant portion of curriculum at the work site.

Changing Systems to Implement Work-Based Learning

The development and implementation of work-based learning in Jobs to Careers projects has required community colleges to substantially alter how and where they deliver instruction, how they partner with employers, and how they are funded. Work-based learning expands or supplements traditional academic education and even continuing education programs. System changes sought in Jobs to Careers projects can provide lessons to other community colleges interested in implementing work-based learning programs.

To develop and implement work-based learning models, community colleges must enhance their relationships with employers.

Work-based learning requires employers and education institutions to collaborate closely to develop curriculum. In Oregon, Rogue Community College partnered with Asante Health Systems to develop entirely new curricula. At other Jobs to Careers projects that use existing curricula,
Community colleges have collaborated with employers to integrate work-based learning elements. Developing or revising a curriculum depends on supervisors and frontline employees working together to determine critical competencies for career advancement and to identify on-the-job learning opportunities. At the Jobs to Careers project at Tenderloin Health, faculty from City College of San Francisco interviewed frontline employees and their supervisors to determine job competencies that could be taught at the workplace. College faculty also shadowed frontline workers to better understand what their jobs entailed.

**Bridging the college’s credit and noncredit sides is key to supporting the implementation of work-based learning and career advancement for frontline health care workers.**

Most community colleges have two divisions. The for-credit, academic division generally delivers instruction on campus. A noncredit division works directly with businesses to meet specific training needs. Many community colleges maintain an inflexible barrier between these two, and students who enroll in the noncredit side do not earn course credit. Acknowledging their mission of supporting regional economic development, community colleges are dissolving the noncredit/for-credit distinction. For example, as part of Jobs to Careers, Bristol Community College is developing a single medical coding program, which grants credits that can be directly applied toward the Associate’s degree.

**Awarding credit for work-based learning requires community colleges to address both internal and external barriers.**

Community colleges need to address institutional governance and state regulatory issues in order to award credit for work-based learning. For instance, a college may need to modify its registration systems to accommodate the flexible scheduling typical in Jobs to Careers. In some cases, colleges and their employer partners have turned to state regulatory boards to permit accreditation for academic programs that integrate work-based learning. For example, the Maryland Board of Nursing was charged with approving hands-on instruction at a local hospital, which was participating in the Baltimore Alliance for Careers in Healthcare’s work-based learning program. In another Jobs to Careers effort, the Community College of Baltimore County worked with the Maryland Board of Nursing to accredit certified nurse assistant education delivered through work-based learning. (For more information, see: Head, Danielle & Rebecca Starr. 2010. *The Intersection of State Regulations and Work-Based Learning: A Case Study on Addressing Regulatory Barriers to an Innovative Strategy for Worker Advancement*. Jobs for the Future.)

**Work-based learning often requires community colleges to accelerate the pace of learning and the acquisition of credentials valued in the labor market.**

Community colleges need to find ways to accelerate learning and credentialing to help employers to fill in-demand positions more quickly than traditional academic programs allow and to save their current employees precious time in pursuing education outside work hours. Jobs to Careers sites have undertaken systemic changes in order to implement accelerated programs. For example, Rogue Community College’s creation of a one-year certificate in health care informatics made it possible for employees of Asante Health Systems to earn a credential, even as they pursued the eventual goal of earning Associate’s degrees.
Sustaining Work-Based Learning in Community Colleges

Community colleges are well positioned to continue the work-based learning innovations that were developed during Jobs to Careers. Project sites also generated significant knowledge on how community colleges can develop and sustain work-based learning.

First, community colleges should integrate work-based learning into traditional courses that are offered regularly to health care employees. Embedding work-based learning in the curriculum is a tool that community colleges can market to employers.

Second, colleges should include work-based learning in training for occupations outside health and health care. While Jobs to Careers focuses on frontline health care workers, colleges can tailor work-based learning methodologies to other occupations, as has been done at Bristol and Leeward community colleges. Work-based learning offers strong potential for improving education for frontline employees in manufacturing, retail trade, and information technology.

Alternative and diverse sources of funding are necessary for the delivery of any workforce education system. Work-based learning is no different. Expanding the funding base for Jobs to Careers will be crucial to sustaining its innovations over the long term. The result will be stronger businesses, stronger local economies, better paths to family-sustaining incomes, and a healthier nation.
Appendix
Leeward Community College, Business Technology Division

BUSN 121, INTRODUCTION TO WORD PROCESSING (3 CREDITS)

Includes Work-Based Learning Modules

Course Description:
Introduces computer terminology and proper keyboarding skills. Use of the Internet to access worldwide network searches for information will be included.

Student Learning Outcomes (SLO):
1. Key by touch when inputting information (alphabetic, numeric, and symbolic), using proper techniques with accuracy.

2. Type by touch at a minimum rate of 30 gross words per minute (gwam) on three-minute timings with a maximum of five errors:
   31-40 gwam = A; 30 gwam = B; 25 gwam = C; 20 gwam = D

3. Produce basic mailable business documents in a timely manner using word processing software.

SLO #1 KEY BY TOUCH WHEN INPUTTING INFORMATION (ALPHABETIC, NUMERIC, AND SYMBOLIC), USING PROPER TECHNIQUES WITH ACCURACY

<table>
<thead>
<tr>
<th>SLO</th>
<th>Concept</th>
<th>Delivery Mode</th>
<th>Foundation/Class</th>
<th>Work-Based Learning</th>
<th>Preceptor or Instructor</th>
<th>Assessment Evaluation</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>Key by touch when inputting information (alphabetic, numeric, and symbolic)</td>
<td>Preceptor WBL Clinic</td>
<td>3 2 1 Redo</td>
<td>3 2 1 Redo</td>
<td>P</td>
<td>Timed Writings</td>
<td>Online</td>
</tr>
<tr>
<td>1b</td>
<td>Exhibit correct posture and position while typing</td>
<td>Preceptor WBL Clinic</td>
<td></td>
<td></td>
<td>P</td>
<td>Timed Writings</td>
<td>Online</td>
</tr>
<tr>
<td>SLO</td>
<td>Concept</td>
<td>Delivery Mode</td>
<td>Foundation/Class</td>
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<td>Preceptor or Instructor</td>
<td>Assessment Evaluation</td>
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<td></td>
<td></td>
<td></td>
<td>3 2 1 Redo</td>
<td>3 2 1 Redo</td>
<td></td>
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</tr>
<tr>
<td>1c</td>
<td>Identify parts and function of the computer</td>
<td>LCC Class</td>
<td>I</td>
<td>Quiz</td>
<td>Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1d</td>
<td>Use the different parts of the fingers to strike keys on upper, home, and lower keys</td>
<td>Preceptor WBL Clinic</td>
<td>P</td>
<td>Timed Writings</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1e</td>
<td>Analyze error patterns and self-correct as needed</td>
<td>Preceptor WBL Clinic</td>
<td>P</td>
<td>Timed Writings</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1f</td>
<td>Apply spacing, number expression, punctuation, symbol, and word usage rules</td>
<td>Preceptor WBL Clinic</td>
<td>P</td>
<td>Timed Writing</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**SLO #2 TYPE BY TOUCH AT A MINIMUM RATE OF 30 GWAM ON THREE-MINUTE TIMINGS WITH A MAXIMUM OF FIVE ERRORS**

<table>
<thead>
<tr>
<th>SLO</th>
<th>Concept</th>
<th>Delivery Mode</th>
<th>Foundation/Class</th>
<th>Work-Based Learning</th>
<th>Preceptor or Instructor</th>
<th>Assessment Evaluation</th>
<th>Chapter</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 2 1 Redo</td>
<td>3 2 1 Redo</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2a</td>
<td>Type by touch at a minimum rate of 30-40 gwam on a three-minute timing with a maximum of five errors</td>
<td>LCC Class</td>
<td>P &amp; I</td>
<td>Timed Writings</td>
<td></td>
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</tr>
<tr>
<td>2b</td>
<td>Use external parts to interact with operating system</td>
<td>LCC Class</td>
<td>P</td>
<td>Quiz</td>
<td>Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2c</td>
<td>Identify and navigate Windows operating system</td>
<td>LCC Class</td>
<td>P</td>
<td>Quiz</td>
<td>Lecture</td>
<td></td>
<td></td>
</tr>
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<td>SLO</td>
<td>Concept</td>
<td>Delivery Mode</td>
<td>Foundation/Class</td>
<td>Work-Based Learning</td>
<td>Preceptor or Instructor</td>
<td>Assessment Evaluation</td>
<td>Chapter</td>
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<td></td>
</tr>
<tr>
<td>2d</td>
<td>Use Search/Find tool to locate documents</td>
<td>LCC Class</td>
<td></td>
<td></td>
<td>P</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
<tr>
<td>2e</td>
<td>Use my computer and/or Windows Explorer to copy and move documents to different drives</td>
<td>LCC Class</td>
<td></td>
<td></td>
<td>P</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
<tr>
<td>2f</td>
<td>Create new and rename documents and folders</td>
<td>LCC Class</td>
<td></td>
<td></td>
<td>P</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
<tr>
<td>2g</td>
<td>Format disk</td>
<td>LCC Class</td>
<td></td>
<td></td>
<td>P</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
</tbody>
</table>

**SLO #3 PRODUCE BASIC MAILABLE BUSINESS DOCUMENTS IN A TIMELY MANNER USING WORD PROCESSING SOFTWARE**

<table>
<thead>
<tr>
<th>SLO</th>
<th>Concept</th>
<th>Delivery Mode</th>
<th>Foundation/Class</th>
<th>Work-Based Learning</th>
<th>Preceptor or Instructor</th>
<th>Assessment Evaluation</th>
<th>Chapter</th>
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<td></td>
<td></td>
</tr>
<tr>
<td>3a</td>
<td>Use the computer's operating system to manage documents and folders</td>
<td>LCC Class</td>
<td></td>
<td></td>
<td>I</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
<tr>
<td>3b</td>
<td>Use external parts to interact with operating system</td>
<td>LCC Class</td>
<td></td>
<td></td>
<td>I</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
<tr>
<td>3c</td>
<td>Identify and navigate Windows operating system</td>
<td>LCC Class</td>
<td></td>
<td></td>
<td>I</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
<tr>
<td>3d</td>
<td>Use Search/Find tool to locate documents</td>
<td>LCC Class</td>
<td></td>
<td></td>
<td>I</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
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<td>SLO</td>
<td>Concept</td>
<td>Delivery Mode</td>
<td>Foundation/Class</td>
<td>Work-Based Learning</td>
<td>Preceptor or Instructor</td>
<td>Assessment Evaluation</td>
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</tr>
<tr>
<td>3e</td>
<td>Use my computer and/or Windows Explorer to copy and move documents to different drives</td>
<td>LCC Class</td>
<td>1</td>
<td>3</td>
<td>Redo</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
<tr>
<td>3f</td>
<td>Create new and rename documents and folders</td>
<td>LCC Class</td>
<td>1</td>
<td>3</td>
<td>Redo</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
<tr>
<td>3g</td>
<td>Format disk</td>
<td>LCC Class</td>
<td>1</td>
<td>3</td>
<td>Redo</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
<tr>
<td>3h</td>
<td>Use word processing features at an introductory level to create, edit, open, and save documents</td>
<td>LCC Class</td>
<td>1</td>
<td>3</td>
<td>Redo</td>
<td>Quiz</td>
<td>CM, BL, TA</td>
</tr>
<tr>
<td>3i</td>
<td>Plan, prepare, proofread, and print documents</td>
<td>LCC Class</td>
<td>1</td>
<td>3</td>
<td>Redo</td>
<td>Quiz</td>
<td>PM</td>
</tr>
<tr>
<td>3j</td>
<td>Distinguish between Save and Save As documents</td>
<td>LCC Class</td>
<td>1</td>
<td>3</td>
<td>Redo</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
<tr>
<td>3k</td>
<td>Copy, cut, and paste text within and between documents</td>
<td>LCC Class</td>
<td>1</td>
<td>3</td>
<td>Redo</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
<tr>
<td>SLO</td>
<td>Concept</td>
<td>Delivery Mode</td>
<td>Foundation/Class</td>
<td>Work-Based Learning</td>
<td>Preceptor or Instructor</td>
<td>Assessment Evaluation</td>
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<tr>
<td>3l</td>
<td>Format text at the text, paragraph, page, and multi-page levels, including font attributes: alignment, indentations, and line spacing; vertical centering and page borders; headers and footers, and pagination</td>
<td>LCC Class</td>
<td></td>
<td></td>
<td>I</td>
<td>Quiz</td>
<td>RPTS</td>
</tr>
<tr>
<td>3m</td>
<td>Insert pictures, files, and symbols.</td>
<td>LCC Class</td>
<td></td>
<td></td>
<td>I</td>
<td>Quiz</td>
<td>CF</td>
</tr>
<tr>
<td>3n</td>
<td>Create and format tables and graphics.</td>
<td>LCC Class</td>
<td></td>
<td></td>
<td>I</td>
<td>Quiz</td>
<td>TA</td>
</tr>
<tr>
<td>3o</td>
<td>Use basic Internet and email functions</td>
<td>LCC Class</td>
<td></td>
<td></td>
<td>I</td>
<td>Quiz</td>
<td>Lecture</td>
</tr>
</tbody>
</table>