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Schools Try to Match the Jobless With 3.4 Million Jobs

By **STEVEN GREENHOUSE**

EVER since the deep **recession** hit four years ago, many colleges have been rethinking their continuing education programs, straining to figure out how best to help the many unemployed Americans who have looked to them as a lifeline.

With the unemployment rate still stubbornly high, this rethinking has led to a powerful trend in which many schools, whether prestigious state universities or workhorse **community colleges**, are trying harder than ever to tailor their continuing-education offerings to where the job openings are — and where the jobs of tomorrow will be.

The University of California, Los Angeles has established a program in “global sustainability” that includes courses on renewable energy and green marketing. With the nation’s exports booming, Miami Dade College has expanded its program to train people to become private customs brokers — facilitators of overseas shipping. Seeing how Google, Facebook and Twitter have exploded in popularity, New York University and Rutgers University have set up programs in digital marketing.

“We’ve become much more focused, much more agile and much more driven by what the data is telling us on where the jobs are,” said Bob Templin, president of Northern Virginia Community College. “We’re very market-oriented now, whereas before we would offer the courses that people were interested in teaching and we’d see who would show up. In the last 24 months, we’ve thoroughly reorganized our continuing-education unit, and we now refer to it as ‘Work Force Development in Continuing Education.’ ”

Even though nearly 13 million Americans are still out of work, many employers complain that they cannot find the right people to fill myriad job openings — for example, specialists in medical information technology or operators of computer-controlled manufacturing machinery. All told, the nation’s employers have 3.4 million job openings, according to the **Bureau of Labor Statistics** — a number of jobs that if filled could cut the unemployment rate, currently 8.3 percent, to around 6 percent.

Realizing this, many politicians, businesses and economic development officials are pressing schools with continuing-education programs to do their utmost to upgrade workers' skills. Not only is the effort helping the jobless find work and employers find workers, it is also helping to lift the hobbled economy and increase the nation's industrial competitiveness, meaning, presumably, fewer jobs lost to China, India and other countries. Continuing-education programs often give students certificates attesting to their upgraded skills without giving them formal academic credits or degrees.

Sensitive to employers' needs, Northern Virginia Community College, with six campuses and more than 75,000 students, has begun offering continuing-education programs in cybersecurity to help protect computer networks, telephone systems and the power grid. And with satellite and computer data ever more plentiful, the school has expanded its courses in geospatial information systems, which can help federal agents track terrorists or alert transportation officials where deer commonly cross roads and cause accidents.

"The old ways of describing continuing education don't fit anymore," Mr. Templin said. "Most of our students are adults who are there to skill up and change careers. They permeate the entire institution and everything we do."

Henry Merrill, president of the American Association for Adult and Continuing Education, sees a common denominator in what schools are offering and students are pursuing. "People have really been going where the money is," he said. "The liberal arts and humanities kind of continuing-education programs haven't been as attractive to people. Schools haven't worked as hard to keep them alive and enroll people in them, not nearly as much as programs that have some connection to workplace skills and professional development."

After completing a four-year stint in the Army in 2008, Ian Sullivan, 30, enrolled at Northern Virginia Community College to "skill up" in geospatial information systems. Mr. Sullivan, a 2004 graduate of James Madison University, where he majored in geology, did a lot of mapping work while in the army, using data from satellites and [drones](#) to help build bases and otherwise assist the American military surge in Iraq.

"I found I knew just enough to get myself in trouble," he said. "I could make simplified maps, but I didn't understand the science behind it. Very quickly I realized I needed additional education to bring myself up to the same level as other geography professionals."

Over two years of classes — he said he much preferred in-person classroom study to taking courses online — he learned how to use mountains of electronic data from satellites and aircraft to make elaborate two- and three-dimensional maps showing roads, buildings, railroads, even fire hydrants.

“I paid about \$350 a semester, less than \$2,000 to acquire the additional skills,” said Mr. Sullivan, who obtained his certificate in geospatial technology in December. “It was obviously a good deal.” He has already found a job doing sophisticated mapping work for BAE Systems, a company that develops defense, security and aerospace systems.

President Obama has recognized the important role that the nation’s 1,200 community colleges and their continuing-education programs play in supplying employers with workers possessing in-demand skills.

“Everybody in America should be able to get those skills at a community college,” Mr. Obama said in a Feb. 13 speech at Northern Virginia Community College. “Companies looking to hire should be able to count on these schools to provide them with a steady stream of workers qualified to fill those specific jobs.” In that speech, Mr. Obama proposed creating an \$8 billion Community College to Career Fund, with the goal of training two million workers for good-paying jobs in growing industries.

Stacey Horricks opted to return to school after leaving her job overseeing the production of background music tracks for television programs and video games. With a longtime interest in marketing, she decided to enroll in a six-course program at New York University in digital media marketing.

For her course in “digital strategy,” she and several classmates collaborated on an elaborate PowerPoint presentation proposing how the L’Oréal company’s Diesel brand, popular with many men, could create and market a fragrance aimed at women 18 to 24. With that 43-slide presentation in hand, Ms. Horricks, 35, applied for several unpaid internships, and to her surprise, landed a full-time paying job as a digital strategist with the JAR Group, an interactive marketing firm, before she had even completed the N.Y.U. program.

Explaining her switch to digital marketing, she said, “I was looking at video games and the interactive marketing they do, and I wanted to go in that direction and be in front of the wave, instead of being crushed by it.”

In New Jersey, Rutgers University has “as many students each year in continuing education — 50,000 — as we do each year in all of our degree programs,” said David Finegold, Rutgers’ senior vice president for lifelong learning — its term for continuing education.

Rutgers plays a major role in what New Jersey calls its Talent Networks. These networks, established in six key sectors including pharmaceuticals and transportation and logistics, work to match laid-off workers and new graduates with employers’ needs. The networks’ coordinators often turn to Rutgers or other state colleges for their expertise and statewide

reach to find people with the right skills or to provide courses that help jobless workers qualify for openings. At the same time, the Talent Networks help Rutgers identify which fields its continuing education programs should address.

“There’s certainly been high demand in health care,” Mr. Finegold said. “Virtually all the employment growth over the past decade in New Jersey has been in health care.”

After 18 years as a food-process engineer with Campbell’s Soup in Camden, N.J., Carrie Greisser concluded it was time to upgrade her managerial skills. At the time, she oversaw a team of eight scientists, who did research on Campbell’s soups, Prego tomato sauce and Swanson broth. She didn’t think it worth the time and effort to get an M.B.A., so she instead enrolled in a Rutgers program offering a certificate of management in science and technology. The program adds “another dimension to my leadership skills,” said Ms. Greisser, 43. “It has helped me be a more successful business partner within the organization.”

To her, a major benefit of the program was studying alongside millennials 15 and 20 years younger. She said it was valuable to mix with students from a different age group and with different perspectives. She nevertheless complained that her weekends were consumed by schoolwork, leaving little time for her family.

“A lot of folks with masters’ in science do not have well-rounded educations,” she said, “and it takes awhile for them to understand the business implications of what they do. When someone has this basic business course knowledge, it puts them in a spot to contribute right off the bat every day.”

At Miami Dade College, the provost, Rolando Montoya, said that school officials were in “constant communications with the Chamber of Commerce and different industries in the private sector about their employment needs.” He said that the health care industry was booming in Florida, just as it is in New Jersey, and his school had broadened its continuing-education programs to meet that sector’s demand. With the state vulnerable to [hurricanes](#), the college is also training more insurance adjusters to meet the needs of property and casualty insurers.

“One advantage of continuing education is we have the flexibility to put something together relatively fast,” Dr. Montoya said. “When we are working with associate degrees or college credits, we have to go through a very rigorous academic review. That takes time. For continuing education, we can react very quickly to the opportunity.”

N.Y.U. created its digital program in the fall of 2006, and eight students received its certificate in digital media marketing that academic year. Last year, 117 students received such certificates, after taking courses like Web Analytics or Strategic Search Engine Marketing Campaign Planning and Execution. To receive a “D.M.M.” certificate, students have to complete six courses, costing about \$800 each.

“It’s a great investment,” said Jackie Vendetti, a University of Pennsylvania graduate in psychology who was ready to change careers after working seven years in video production, most recently as an account manager. An Internet search about interactive marketing led her to N.Y.U. There she was impressed by the professors’ expertise, their connections with industry professionals and their willingness to help with everything from drafting résumés to prepping for job interviews. Certificate in hand, she has landed a job in digital engagement for the American Red Cross.

“Without my experience at N.Y.U., I wouldn’t have gotten this job,” said Ms. Vendetti, 42. “But they were also looking for the customer skills that I brought from my past experience. I’m not a newbie right out of college. I’ve been in the working world for 20 years.”

At Sinclair Community College in Dayton, Ohio, the president, Steven L. Johnson, took an unusual step five-and-a-half years ago, creating a vice president’s position with the sole responsibility of work force development, including consulting with employers about their personnel needs. The vice president, Deborah L. Norris, is fond of saying, “Community is our middle name.”

“We have seen this increasing call for us to be more closely aligned with employers,” Mr. Johnson said. “We have this terrible dissonance — we have all these unemployed people across the nation, and we have employers who say, ‘We can’t find the people we want to hire; they don’t have the skills.’ A lot of us in higher education have been talking about how we can serve the economy, and that means how do we help train the work force to meet the economy’s needs.”

Sinclair has an advanced manufacturing program to train people how to run factory robots and computer-controlled metal-cutting machines — skills that few laid-off factory workers have. Sinclair also offers courses in “advanced materials,” in which students learn, among other things, about lightweight composites for aircraft construction.

Going well beyond what many schools do, Sinclair is working closely with state and local officials and business groups to help figure out how to attract and nurture industry. After the closing of the area’s huge General Motors and Delphi auto parts plants, Sinclair is working with government and business to attract a fast-growing industry: unmanned aerial vehicles,

also known as drones. President Obama signed a law on Feb. 14 allowing drones to be used for many commercial activities, including crop dusting, selling real estate, checking pipelines for cracks and monitoring [oil spills](#) and wildlife. The Teal Group, an aerospace consulting firm, estimates that \$94 billion will be spent on such unmanned systems over the next decade.

Dayton — home of the Wright Brothers and the location of the huge Wright-Patterson Air Force Base — has considerable aviation expertise, and the state of Ohio has given Dayton a planning grant to develop the drone industry and its anticipated thousands of jobs.

Sinclair Community College is part of the effort. After consulting with industry experts, it is offering a certificate in unmanned aerial systems, with courses in piloting the vehicles remotely, maintaining them and operating their cameras. Seventy students are already taking classes in that program, with 67 more planning to this spring.

“Sinclair is working with us to anticipate what the training needs of business will be in the future,” said Jeffrey C. Hoagland, president of the Dayton Development Coalition, an economic development group. “That’s a little risky. But at the end of the day, it’s worth the reward.”