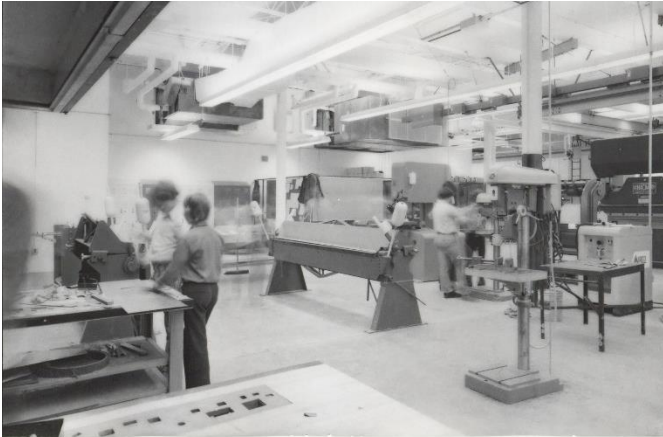# Evolution of Career & Technical Education


By Carl Franceschi, AIA, LEED AP/Principal & President, DRA Architects

What's in a name? The evolution of career-technical education in our public schools is captured in the changes in the name for this hands-on approach to education and training.

Originally referred to as "trade schools" these alternative high schools were originally conceived in the early 20th century as manual training schools for (mostly male) students who were not "college material." Curriculum had minimal academic instruction and focused on the skills necessary to gain productive employment after graduation. The schools proliferated in urban areas with the support of local labor unions. The buildings housing these programs tended to resemble the factories and warehouses the graduates would ultimately occupy as workers.

After World War II, spurred on by the Cold War and the Russians launch of Sputnik, America shifted its educational focus to science and technology. The American economy likewise shifted from primarily manufacturing to service and technology. To support this change, trade schools evolved in both name and curriculum into "vocational-technical schools." In Massachusetts, this was manifested in the late 1960's and early 1970's with regional vocational schools to serve rural and suburban areas that had an insufficient population base in any single school district to economically offer the desired vocational programs. This generation of vocational schools, including Minuteman Regional High School, Greater Lowell, and
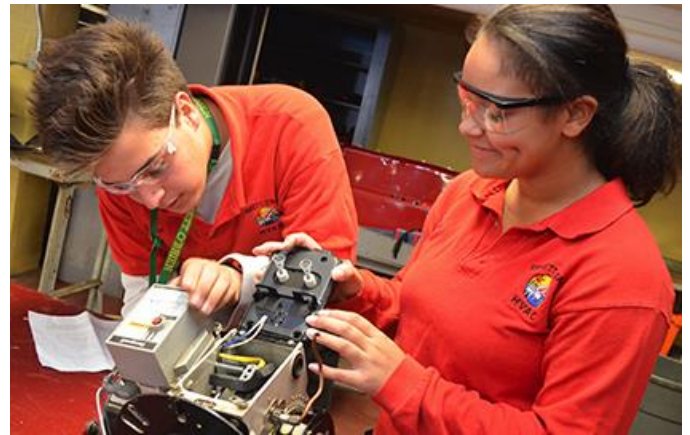
Whittier Regional Vocational Technical HS all designed by DRA, still focused its curriculum on job related skills, but now included the theory behind the practice. Thus, an automotive student would learn the physics behind the internal combustion engine and culinary arts students would understand the chemistry behind baking bread. So-called "related classrooms" were strategically located adjacent to shop areas, and those programs serving the public, like distributive education and cosmetology were arranged along innovative interior malls to provide visibility and acessessibility.

However innovative these vocational schools were, they still struggled with an image problem and a stigma associated with manual labor entry-level jobs, and "kids who don't plan to go to college." To counteract this, and to aggressively promoted a positive image, the schools have shed the word "vocational" and adopted the term "career-technical" education which better reflects the evolution of this branch of education and the evolution of the US economy into an information and service based economy.

Today career-technical schools are organized into academy clusters analogous to the "small learning communities" trend of academic high schools and they offer such areas of study as biotechnology, environmental science, information technology and allied health. Now many of their graduates do go on to college or other post secondary training. And the physical facilities that house these new schools are evolving similarly. These trends include:

- Decentralization of administration and support spaces to support smaller learning communities

- An openness to provide awareness of internal activities to the public and to other students, particularly in their freshman exploratory year

- Greater variety of spaces to support the variety of activities that are now included in a career-technical program. An effective career-technical school is no longer just a collection of shops and classrooms, there must be conference rooms, resource rooms, computer labs and large group rooms.

- More robust resources available to students and teachers that are comparable with traditional academic high schools. Facilities now often include an auditorium with support areas for music and drama, full library-media center with distance learning, and flexible "open shops" to be developed as needed to respond to future workplace demands.

- A careful balance of openness and security for schools designed to welcome the public while recognizing the security issues of today's society. Utilizing both technology and human supervision to greet, direct and control visitors, most new schools provide "welcome desks (not security)" visitor ID badges and security cameras to create the appropriate environment. ♦