

## "Living Proof": Tech Prep in Delaware

Whenever large-scale change is initiated in our educational system, everyone watches closely for evidence of the benefits. In the case of the Tech Prep movement, few schools have had their programs up and running long enough to see any clear-cut results. But in Delaware, a nine-year program is providing us with "living proof" that Tech Prep is successful and leads to many tangible and long-term benefits for students, teachers, and our society in general.

Jim Campbell, former teacher, principal and now Delaware's single Tech Prep Consortium's Coordinator, pioneered one of the first Tech Prep programs in the country in 1986. Today, the highly successful program is organized into 14 different "clusters," or groups of career-related classes, and serves 16% of all high school students in the state. Within the clusters, there are 336 specific courses of instruction, 46 of which qualify for advanced credit at community and four-year colleges throughout the state.

Thanks to careful record-keeping, the Delaware program clearly demonstrates the evidence that Tech Prep works. Jim is proud of the immediate and long term benefits he sees, which include more motivated students, increased achievement scores in basic skills, happier and more successful teachers, and the development of lifelong learners who see education as a route to economic well-being over the course of their lives.

### A Neglected Majority

Jim was originally inspired by Dale Parnell's book *The Neglected Majority*, which reported that 75% of students in high school do not go on to complete a four-year college degree. Many of these "neglected" students spend their high school years in a non-specific "general" track, where they receive little support or guidance for continuing their education.

Noting that 68% of high school drop-outs come from the general track, Parnell recommended that schools do away with it altogether, replacing it with classes that combine vocational and academic subjects in an integrated, applied manner. Parnell predicted that if students were shown the relationship between what they did in school and what they might do for a living, and then given opportunities to select pathways leading to post-secondary education, they would have a better chance for success in school and in their futures.

Jim modeled his early program on these recommendations and found Parnell's premise to be true. In 1993, he was honored by the Parnell Award, which is given annually by the American Association of Community Colleges to exemplary Tech Prep programs nationwide.

"It wasn't easy," Jim told us, referring to the many years of hard work he devoted to making the program a success. "But the results make it all worthwhile."

One of the most dramatic of these results was the noticeable increase in motivation of students to learn and stay in school. Studies done over a five year period showed that students enrolled in the Delaware Tech Prep program dropped out of school at less than a 1% annual rate, as opposed to the state drop-out rate, which is 6% annually.

How do Tech Prep programs help students to become more motivated? "Tech Prep is about real-world careers and jobs, and that's what a lot of kids want," Jim responded. "In Tech Prep, their experience of education is directed and goal-oriented, and they see themselves as being on the way to a hopeful future."

Students are further motivated, he told us, by the opportunity to earn college credit while still in high school, an arrangement made possible by articulation agreements with several colleges in the state.

### Strategies Support Motivation

"Young people are more motivated in Tech Prep programs because specific strategies are used to support engaged, participatory learning," Jim told us. One strategy is applied academics which uses a "hands-on" rather than a theoretical approach to core academic subjects. Another, curriculum integration, combines core academics with technology or vocational subjects to make a new class that is more rigorous for vocational students and more relevant for those on a four-year college path. Often, career guidance is infused to help students with career exploration and decision-making.

"Curriculum integration is not an easy process, but it's well worth overcoming the difficulties," Jim reports. Problems arise because vocational teachers and academic teachers come from such different backgrounds,

making it difficult for each to understand the other and creating a gap in their ability to meet and plan programs. It takes a certain amount of dedication and persistence, plus the support of a understanding administration, to overcome these difficulties and successfully develop integrated curriculum.

Logistical problems arise when vocational and academic departments are physically separated in different buildings, as is the case in many states today. In Delaware, Jim told us, the problem was solved by the creation of full-time, technical/vocational centers where staff from both departments teach in the same building, organizing and planning their curricula together.

### The Role of Guidance

"What really makes it all work," Jim said, "is that students understand an important little secret about life, which is: Everyone has to work, and those who continue their education have a better chance to do interesting and rewarding work." In order for students to have this understanding, Jim believes, we need to provide a guidance process that allows them to realize the value of learning in relationship to their future lives.

For most schools, implementing a comprehensive classroom guidance program represents a major investment in time and money. "Everyone knows you need career guidance," Jim told us, "but it's on the back burner because educators have so many other priorities." Guidance counselors, Jim believes, are often unable to provide career guidance to the majority of students because their focus is on scheduling and college admissions.

In 1991, Jim was looking for a way to put a guidance component into his program, when he overheard another educator remark: "Isn't it funny that we spend so much money and effort in driver education to teach a young person to drive a car, and we're unwilling to spend time and money on career education so young people can learn to drive their life?"

"That made me reflect," Jim told us. "I realized that if we're going to ask students to select careers and choose a Tech Prep pathway while still in school, then we have to provide them with the guidance needed to make those decisions."

That same year, Jim attended a seminar in Santa Barbara, California, where he was introduced to the *Career Choices* curriculum.

"For the first time, I was seeing a product that showed guidance as logical and practical, sequential in approach and comprehensive," he told us. "It was clear to me that *Career Choices* allowed students to explore their work values, preferences, and choices. Using this curriculum, they could discover who they were, where they wanted to go, and how they were going to get there, and then begin to develop a plan for self-identity and goal-achievement."

He continued: "A sense of 'buy-in' is created when students arrive at goals through their own efforts. It's only then that they begin to see the connection between what they're studying and where they're headed in real life."

That connection was exactly what Jim wanted students in his program to see. Returning home, he urged his superintendent to purchase the curriculum, and now *Career Choices* is in place in six school districts throughout the state of Delaware.

### Benefits Make It Worthwhile

In spite of the difficulties of implementing a Tech Prep program, the very visible benefits make the effort well worth it. In addition to the strong motivational factors built into Tech Prep, Jim described several clear-cut payoffs when schools move in this direction:

- **Basic Skill Increased.** Based on the Iowa Basic Skills test for students in Delaware, the evidence shows over a four year period that young people who pursue Tech Prep programs significantly outscore other students in their schools on academic achievement in math and language.
- **Successful Post-secondary Enrollment.** The link between Tech Prep and successful post-secondary enrollment is well established by statistics from the Delaware program. "Evidence shows that students graduating from Tech Prep programs who need remediation continues to drop, and is now only 18%, as against the institutional rate of 70%," Jim reported. Tech Prep graduates entering community colleges also have a much higher retention rate: 92% as compared to 40% for regular students.

- **Teachers More Motivated and Schools Upgraded.** Teachers are rejuvenated with new enthusiasm and increased energy. "It's a lot more fun teaching students who are motivated, and self-directed," Jim said. Also, teachers experience less isolation and burnout when they team up to create integrated, interdisciplinary teams. Textbooks must be brought up to standards in order to qualify a course for advanced college credit. "The district has to commit to quality equipment, supplies and instructional materials now," Jim explained. "Teachers are now getting what they couldn't get from districts before, and so they have better tools to do the their job."
- **Students Become Lifelong Learners.** In our increasingly complex society, where people may change careers several times over a lifetime, learning needs to become a life-long pursuit. Tech Prep teaches this to young people, Jim says. "When students complete high school with skills and obtain decent paying jobs, they see the relationship between their education and their economic status. The idea of seeking lifelong learning then occurs naturally, as a way of improving that economic status."

### Tech Prep in the Future

Jim firmly believes that Tech Prep will continue to grow as a movement and feels strongly that it deserves continued government support. He predicts: "More students will graduate from high school with higher levels of academic and technical skill, which translates to more enrollment and success at the post-secondary level. Standards of living for our children will improve, because we will have developed a world class workforce. Add to that an improvement in the literacy rate, a decrease in our national debt, and less people incarcerated and on welfare, and you begin to see the bigger picture of Tech Prep."

Looked at it from this viewpoint, the question begs an answer: How can we afford not to continue support for Tech Prep programs in the future?

### Tech Prep Pays Off

- **Drop out rate decreases.** Delaware Tech Prep students dropped out at rate of less than 1%, as compared to a statewide rate of 6%.
- **Math and language skill increased.** Tech Prep students in seven high schools earned higher math and language scores on Iowa Basic Skills than non-Tech Prep students statewide.
- **Successful Enrollment in post-secondary schools.** Only 18% of students graduating from Tech Prep programs needed remediation, as compared to the post-secondary rate of 70%. Tech Prep graduates also had a much higher retention rate for community colleges: 92%, as compared to 40% for non-Tech Prep students.
- **Motivated teachers and upgraded schools.** Teachers are renewed by having more motivated students; they also experience less isolation and burnout because of team teaching in integrated settings. Textbooks and equipment are brought up to standards in order to qualify classes for college credit.
- **Lifelong learning established.** Learning becomes a lifelong pursuit when students link economic status to education.