

Teacher Shortage Undermines CTE

The 2008-2009 Occupational Outlook Handbook from the Bureau of Labor Statistics projected that the fastest growing careers would be in career and technical education (CTE) fields such as healthcare and trade and industrial (T&I) occupations.¹ However, in order to cultivate a workforce to fill these jobs, students will require training from quality secondary and postsecondary CTE teachers – resources that are lacking across the nation due to a teacher shortage.

Between 1994 and 2004, the nation hired approximately 2.25 million teachers but during that same time frame, 2.7 million teachers left the profession – a majority of whom left before retirement.² This shortage threatens to undermine schools’ abilities to prepare students to succeed in the workforce. The national cost of public school teacher turnover could be over \$7.3 billion a year, based on the cost generated by teachers who leave their school or district during a given year.³

This brief looks at the reasons behind the shortage of teachers in CTE programs, and what can be done to curb the declining numbers and recruit more individuals into CTE classrooms. It also highlights examples from the states that serve as models for increasing the number of CTE teachers in their state.

Why is there a teacher shortage?

Several factors contribute to the teacher shortage in CTE. First, there has been an increase in the number of students enrolled in CTE courses, resulting in a demand for more classes and more teachers. The Office of Vocational and Adult Education at the U.S. Department of Education reported that more than 15 million students were enrolled in CTE courses at the high school and postsecondary levels during the 2006-2007 program year.⁴ This represents an increase of almost 6 million students in just seven years.

Second, many existing teacher education programs have been eliminated. The National Research Center for Career and Technical Education reported that from 1990 to 2000, the number of CTE teacher education programs fell from 432 to 385 programs, a decrease of 11 percent.⁵ As a result of this decline in programs, the number of students enrolled in CTE teacher preparation programs has also declined.⁶

Third, the growing number of teacher retirements is affecting the supply of CTE teachers. In 2009, the National Commission on Teaching and America’s Future estimated that “during the next four years we could lose a third of our most accomplished educators to retirement.”⁷ While this report focused on teachers in general, CTE teachers are affected by retirements as well. Because many CTE teachers are retiring and are not being replaced by new teachers, there is a need to fill these vacancies with qualified CTE teachers.

Taken together, these factors have resulted in a crisis for CTE: student demand requires more teachers, but teachers are leaving the profession and the opportunities to cultivate new educators are limited as teacher programs are eliminated.

Alternative teacher certification

Alternative certification is a way for individuals to more quickly obtain their teaching license or credential without going through the traditional path to certification in their state. Alternative certification allows people who have worked in business and industry to become CTE teachers in their fields without having to earn an education degree or pass traditional teacher certification exams. All 50 states and the District of Columbia offer some form of alternative teacher certification.⁸ These programs have grown in recent years due to a range of factors, such as teacher shortages and policies under the No Child Left Behind Act, which requires nontraditional teachers to enroll and make adequate progress toward certification in an approved program.⁹

There is some precedent for alternative certification in CTE. Teachers in the T&I and health occupations have long been alternatively certified on the basis of their occupational competence.¹⁰ However, the majority of CTE teachers come to the profession via the more traditional four-year baccalaureate degree.¹¹

While there is some concern that teachers who take the alternative certification route are not as rigorous or high quality as those to take the traditional route, research has shown that *there is no statistically significant difference in the academic achievement of students whose teachers took different routes to certification.*¹² In order to retain this level of achievement, there must be high alternative certification standards to ensure high quality CTE teachers in the classroom, as is done in states such as Oregon, Alabama, and California.

State Examples: Innovative Strategies for CTE Teacher Preparation

Oregon: Teacher shortages in Oregon have resulted from retirements and the elimination of university CTE teacher preparation programs. New graduation requirements may also exacerbate the problem, but at the same time be a catalyst to address the need. Beginning with the freshman class of 2009, high school students must complete at least three credits in either CTE, fine arts, or a second language, which may increase the demand for CTE courses and teachers.¹³ In 2007 the Oregon Department of Education and the Department of Community Colleges and Workforce Development convened a summit to address the CTE teacher shortage problem.

Their work was picked up by the Oregon Perkins IV Professional Development Taskforce later that year. The Taskforce issued a number of recommendations that are being implemented in the state to strengthen existing practices for teacher recruitment and retention. For example, mentoring for CTE teachers has long been required in Oregon, but now all mentors must be trained by a state approved mentoring program. This will ensure consistency and quality across the state.

The Instructor Appraisal Process allows people from business and industry or from an education field with a regular teaching license to instruct CTE courses while participating in a Three-Year Improvement Plan. In lieu of a traditional teaching preparation program, the Instructor Appraisal Committee -- comprised of representatives from business and industry, the school district, the Regional CTE Coordinator and the Oregon Department of Education -- evaluates the individual's qualifications and recommends them to the Oregon Teacher Standards and Practices Commission for a teaching license with the appropriate CTE endorsement.

Western Oregon University and Oregon State University are developing distance learning courses for CTE teacher preparation. These courses are targeted towards those who are working full-time in industry and wish to take part-time classes towards their teaching degree. Because these students will have a strong foundation in the technical aspects of CTE, the courses will focus on pedagogical issues such as classroom management, special populations and instruction.

Alabama: Alabama has addressed the CTE teacher shortage by introducing new paths to certification for individuals who wish to transfer from industry to the classroom and those teachers without industry experience who wish to become CTE teachers. These alternative certification efforts have resulted in more teachers in Alabama, especially in the technical education, health science, and business marketing areas.

The Specialty Area Certification (SAC) allows individuals without a teacher education background to come from industry and get certified as CTE teachers. This certification is used predominantly by those in the healthcare and technical education fields. There are five levels of certification available, but the first two levels are non-renewable, requiring those who wish to remain in the teaching profession to get at least a level 3 certification, which entails an additional 45 semester hours of coursework. Once they reach a level 3 certification, they only need to take a minimal amount of courses to get their teaching degree. As a result, most people continue their education and get their degree. Alabama is considering making level 3 certification non-renewable so that those using the SAC route must get their teaching degree. The level 5 certification requires the holder to get a Masters degree.

The CTE Alternative Baccalaureate Certificate (CTE ABC) requires individuals to have a bachelor's degree in some academic or CTE area, and document one of four eligibility options: 32 hours of CTE coursework in the area to be taught (19 hours upper level), verification of a passing score on the PRAXIS II assessment, hold a bachelor's degree with a related major in the teaching field, or have work experience in the area they wish to teach. Most applicants rely on the 32 hours of coursework or the PRAXIS II requirements, rather than work experience to fulfill their obligation for the CTE ABC.

California: California's CTE teacher shortage is partly the result of the difficulty many teachers face in meeting credential requirements.¹⁴ To address this problem, the Career Technical Education Panel was created and tasked with providing program standards for educational agencies and rewriting the credential requirements.¹⁵

In 2008, the California Commission of Teacher Credentialing (CCTC) consolidated their Designated Subjects credentials from 175 specific CTE credentials to 15, reflecting industry sectors. Restructuring the CTE credentialing process in this way will give CTE teachers greater instructional flexibility to move across subject areas, provide districts with added flexibility in hiring CTE teachers and expanding course offerings, and create a more transparent and accessible credentialing process.¹⁶

A new law went into effect on January 1, 2009 that puts into action several recommendations of the CTE advisory committee to the CCTC that make it easier for individuals to transition from industry to teaching. For example, the law has reduced the experience required to qualify for a preliminary credential from five years to three years, and reduced the term of the preliminary credential from five years to three years.¹⁷

Recommendations

Alternative Teacher Certification: States should maintain flexibility in their alternative certification program to allow individuals experienced in industry to become CTE teachers, while at the same time ensuring high standards and teacher quality.

States should consider a range of certification pathways that allow potential teachers various opportunities to demonstrate their teaching and content-based qualifications and competencies. For instance, prospective teachers may be able to exhibit their qualifications through a mix of occupational testing,

professional certification or longstanding work experience. Flexibility should be applied based on industry and the means by which teachers may exhibit their qualifications.

To ensure teachers' pedagogical qualifications, new CTE teachers must meet standards that demonstrate their abilities in content knowledge of relative core subjects, classroom experience, and pedagogical practices.

Professional Development/Retention: Professional development for teachers, faculty, administrators and career guidance counselors is a required use of Perkins leadership funds. Perkins IV requires professional development to be "high quality, sustained, intensive and focused on instruction."¹⁸ But Perkins is not the only source of funding that CTE administrators can access to provide professional development; administrators can coordinate their efforts with the work being done under Title II of the Elementary and Secondary Education Act and Title II of the Higher Education Act related to teacher certification or licensure and professional development.¹⁹

New CTE teachers, whether they enter the field through traditional or alternative means, should be given adequate support and professional development. This can include mentoring from more senior teachers, professional development workshops and adequate resources for their classrooms. The U.S. Department of Education's 2000 report *Eliminating Barriers to Improving Teaching* found that "attrition rates of first-year teachers can be reduced by up to two-thirds if teachers participate in a formal first-year induction program that includes mentoring."²⁰

Because CTE teachers enter the profession from both traditional and alternative routes, professional development and retention strategies must vary, but all should be comprehensive and continuous. For instance, if an induction program includes mentoring for new teachers, a professional development program for continuing teachers should include peer support that builds off the initial program. CTE teachers who are recruited from industry would require particular support from peers with more experience in pedagogical practices.

Effective Recruitment: States and school districts should recruit CTE teachers from business and industry. Some industries change so rapidly that people coming to teaching from industry will be well versed in the latest technologies and practices. However, knowledge of subject matter does not mean that one will be an effective teacher. There must be safeguards in place to ensure that these teachers have been well trained in pedagogy.

Because of their unique relationship with students, CTSOs should encourage students to become CTE teachers. These organizations can show students that their interest in a particular career or technical area is not just applicable in the business world, but can also translate to the classroom where they can nurture and develop the next generation of CTE professionals.

Conclusion

The teaching profession in general, but CTE in particular, is facing a teacher shortage. In order to increase the supply of CTE teachers, states and school districts should recruit individuals from business and industry to get their teaching certificates through alternative certification routes. Once in the classroom, these teachers should be given adequate supports and professional development to ensure that their students are well served.

Endnotes

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