# AN EVALUATION OF TEXAS CAREER AND TECHNOLOGY EDUCATION PROGRAMS FUNDED UNDER THE CARL D. PERKINS VOCATIONAL EDUCATION ACT

## Final Report

## June 2007

*Prepared for the Texas Education Agency*

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**EXECUTIVE SUMMARY**

Career and technical education (CTE, now commonly referred to as *career and technology education*) provides students with rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions (Library of Congress, n.d.).

CTE student achievement and program performance must be regularly monitored to provide a basis upon which to make program changes and improvements. In 2006, Educational Service Center (ESC) Region VI was contracted by the Texas Education Agency (TEA) to conduct a comprehensive evaluation of Texas CTE programs. The evaluation provided an examination of the characteristics and effectiveness of existing programs as well as valid data that can be used to develop future program plans to better meet the needs of Texas students.

The following are the key findings from the evaluation:
- The number of teachers attending their respective professional development conference is dwindling each year and dramatically so in the last three years. Yet teachers and administrators say the training received at these conferences is very effective.

- CTE enrollment data show the percentage of each Public Education Information Management System (PEIMS) subgroup population is represented quite similarly to the non-CTE student population. However, the Hispanic subgroup consistently has at least 4.7% more students enrolled in the Tech-Prep program than in the non-CTE program. The white subgroup, however, consistently has over 3.4% fewer students enrolled in the Tech-Prep program than in the non-CTE program. School counseling and guidance processes for CTE recruitment and enrollment, or the students' motivation for enrolling in CTE, were not explored in this study but warrant further exploration to explain these trends and to ensure that tracking based on race is not occurring.

- Focus group participants indicated that Career and Technology Student Organizations (CTSOs) are a high priority due to their focus on real-world skills, and many administrators and teachers felt that these organizations are effective in developing students' leadership skills and other positive outcomes. However, the student participation rates do not reflect this priority. Future Farmers of America (FFA) was considered the most effective by school staff and had the highest proportion of participating students.

- Administrator and teacher survey responses indicated that many respondents were "neutral" with regard to the Project Lead the Way (PLTW) and Special Projects Resource Center (SPACE) programs. This may be due to a lack of knowledge about the programs.

- There is a performance gap between CTE and non-CTE students on both the Texas Assessment of Knowledge and Skills (TAKS) and Higher Education Readiness Component (HERC), although it is decreasing in reading/English Language Arts (ELA). Another interesting trend for both math and reading/ELA is that the differences in passing rates peak in the early high school years. Regression analyses examined the effect

of CTE involvement regardless of the type of CTE program relative to the effects of ethnicity, economic status, and school type (middle or high school). The model showed that being enrolled in any CTE had a small, negative impact on TAKS scores. These findings suggest the need for increased cross-training with academic instructors so that CTE teachers can improve their core academic instruction, especially during the early high school years.

- The analyses of TAKS and HERC results also show that the more structured the CTE program, the better the students performed on the reading/ELA TAKS and HERC, although still not as well as the non-CTE students. This dynamic is especially true for students from ethnic minority backgrounds on the reading HERC. Students of Hispanic origin participating in Tech-Prep programs outperformed non-CTE students of Hispanic origin on the reading HERC.

- Findings on CTE's impact on graduation rates are encouraging. CTE students are more likely to remain in school and graduate than non-CTE students. This difference grows as the structure of the CTE program increases as well.

- Analyses of the HERC and graduation plans show that CTE students who plan to go to college lag behind non-CTE students who plan to go college in meeting the HERC components in reading and math.