



Double the Numbers: A Jobs for the Future Initiative

Remaking Career and Technical Education for the 21st Century: *What Role for High School Programs?*

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EXECUTIVE SUMMARY

As part of the broader policy debate on how to reform K-12 education, particularly high schools, basic questions about career and technical education are on the table. Does secondary career and technical education have a place in American education? If so, how big a role should it play in educating American adolescents? For which students should CTE be designed? With what educational and economic goals? And under what terms should CTE be supported and modernized?

These questions are critical to state, federal, and local strategies to raise the achievement levels of high school students and reduce the “leaks in the pipeline” into and through postsecondary education and careers. There is no way to significantly improve high school outcomes without tackling the quality of secondary career and technical education. CTE is too important a segment of the high school enterprise, and its traditional role as a track or the “non-college bound” means that a large proportion of the students who need the most support to achieve at high levels are enrolled in CTE programs or schools.

Remaking Career and Technical Education for the 21st Century begins with a summary of what we know—and don’t know—about the value of high school career-focused education, which includes career and technical education as traditionally conceived and also more recent innovations, including school-to-work, work-based learning, career academies, High Schools That Work, and other models of schools, programs, and instructional practices that put careers and occupation-oriented knowledge at the center of school life.

A few broad conclusions emerge from this review of research on career-focused secondary programs and schools:

- The career and technical education enterprise, while shrinking, remains a significant component of the U.S. high school experience.



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- CTE appears to help less-motivated and more at-risk students stay in high school and graduate, yet graduation from a CTE program does not necessarily mean that a student is academically prepared for college-level work or for today's workplace.
- The overall rigor of vocational education at the high school level has improved noticeably; however, there is a long way to go and many obstacles to overcome to sufficiently improve the academic experience for most CTE students.
- Employers would prefer to hire students with college credentials over those with only a high school diploma—and students with a postsecondary credential are more likely to secure a well-paying job than those without one. At the same time, for those who do not continue to college, jobs found with the help of career-focused programs in high school have a significant short- to mid-run labor market payoff, particularly for low-income students and those who are the most at-risk.

Progress has been made in the past decade toward the spread of more modern and rigorous CTE programs. In states that have aggressively pursued CTE reform, obsolete programs are being replaced with forward-looking ones, enrollments are up, and test scores and completion rates are beginning to climb. Yet, as the research clearly indicates, the overall record of CTE, small career-themed schools, work experience, and work-based learning in high school has been disappointing.

Moreover, existing studies shed little light on whether recent progress can be sustained, broadened, and accelerated so that CTE is a viable, high-quality pathway to 21st century college and career success for an ever-growing number of students. And research alone cannot answer the difficult policy question: Do investments in CTE programs, which typically have a higher per pupil cost compared to traditional high school curricula, add enough value to justify them over other investments that might raise high school standards and performance?

Seven short essays that follow this research review look forward to where CTE will go rather than back to what past research has found. The authors address the challenges and possibilities for secondary school CTE in today's knowledge economy, charting a course for a reformed and vital secondary CTE sector. In the

process, they highlight concrete examples of how states and schools can change for the better and how states and the federal government can drive improvement in CTE programming. They also identify practical challenges facing CTE programs trying to ratchet up quality, in the areas of curriculum, scheduling, the integration of technical and academic studies, the upgrading of technical teachers' skills, and more.

There is a consistent message in these essays: CTE at the high school level must either change or die. Change may mean shrinkage in absolute size. It will certainly mean shifts in the kind and range of programs offered students and in the expectations placed on students, faculty, and administrators. The future may be different in urban and suburban regions, where the economic bases and the educational resources available for CTE improvement can be quite different. The future is also likely to vary with the differential ability of state and regional CTE systems to meet rising expectations for quality and performance.

Taken together, the authors outline a reform agenda for CTE consistent with that of high school reform nationally: rigor, relevance, and relationships—with academic rigor as the primary goal and accountability, choices, and teacher quality as key levers for improvement. By and large, the authors believe that CTE will either take its place as a high-quality high school pathway or cede its role in the American high school experience—that policymakers and practitioners will make the transition to a more academically rigorous and labor market-sensitive secondary career and technical education, or they will continue to shift resources into other high school programs and curricula.

That said, the ways—and the extent—to which work, career exploration, internships and service learning, technical preparation, and occupational themes will be incorporated into high school educational programs are far from set. Further research on the impacts of these approaches will have some influence on their evolution. However, as in the past decade, the greatest influence will come from the politics of education reform in states and nationally, as well as the kinds of pressure and support that stakeholders for CTE and other reform movements bring to bear on public opinion and on the educational establishment. This volume is written as a contribution to this increasingly important debate.