Making Vocational Education More Effective for At-Risk Youth

by John Bishop

Occupationally specific vocational training pays off for disadvantaged students, but only if graduates work in the jobs they were trained for. Implication: Vocational educators must help make sure that the skills they teach are used.

To compile comprehensive information for Congress in preparation for reauthorization of the Carl D. Perkins Vocational Education Act of 1984, the National Assessment of Vocational Education (NAVE) studied a variety of programs and commissioned papers by three eminent authorities. The article below summarizes one of the NAVE-commissioned papers. This spring, NAVE is scheduled to publish a more detailed version with full citations.

Minority and nonminority youth from economically disadvantaged backgrounds have great difficulty finding steady jobs that provide real training and advancement opportunities.

According to the Bureau of Labor Statistics, in October of 1986, only 32 percent of black youth who had recently dropped out of high school had a job, and only 42 percent of the previous June's graduates not attending college had a job. For Hispanics, only 46 percent of recent dropouts had a job, and only 65 percent of graduates not attending college had a job. While the employment rates for white youth were somewhat higher (47 and 71 percent, respectively), it is clear that the problem is not limited to minorities.

This socioeconomic problem raises very important questions pertinent to vocational education:

- If youth participated more in vocational education, would these extremely high unemployment rates be lowered, and would the quality of the jobs obtained improve?
- If so, what form should vocational education for disadvantaged youth take?
- Should the goal of the occupational component of high school vocational education be occupationally specific skills, career awareness, basic skills, or something else?
- What should be the relationship between programs providing occupationally specific training and the employers who hire their graduates?

Research Findings

Researchers have investigated the effects of various types of vocational coursework on dropout rates, probabilities of employment, earnings, productivity, and basic skills. Here are their findings in ten questions and answers.

Question: Does vocational education lower dropout rates of at-risk youth?

Yes. Taking one vocational course each year during the four years of high school raises the graduation rate of at-risk youth by 6 percentage points. This raises expected earnings by about 2 percent.

Question: How large are the economic benefits of high school vocational education for minority youth and for youth from disadvantaged backgrounds?

In the most recent studies of high school graduates who do not go to college, the benefits of high school vocational education are substantial (particularly for Hispanics). If a training-related job is obtained, average monthly earnings are 7 to 8 percent greater, unemployment is substantially reduced, labor force participation is more consistent, and on-the-job productivity is increased.

If students stay for many years in the occupation they trained for, the benefits of the occupational training grow even larger. In 1987, for example, Paul Campbell and his associates analyzed data from the National Longitudinal Studies and found that vocational program graduates who spent 100 percent of their work time since high school in a training-related job earned 31 percent more in 1984 than the vocational graduates who had never had a training-related job.

Question: Do the benefits of vocational education depend upon getting a training-related job?

Yes. Economic benefits are zero if a training-related job is not obtained.

Question: To what extent are the occupationally specific skills learned in high school being used?

Fewer than half of the graduates go on to training-related jobs (rigorously defined).

Question: Why do the occupationally specific skills learned so often go unused on a job?

The causes are lack of emphasis on placement, insufficient involvement of employers, training for jobs not in demand, poor career guidance, and the frequent unwillingness of schools to provide even the most minimal assistance in students' job searches.

Question: Can basic skills substitute for occupational skills?

No. Jobs require both.

Among the indications that occupational skills are very important are:

- Job knowledge (occupational skills) tests are better predictors of job performance than are basic skills tests, whether job performance is evaluated by supervisory ratings or actual work samples;

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- Occupational skills appear to exert greater impact on productivity than do basic skills. When basic skills are held constant, one standard deviation of improvement in job knowledge raised productivity by about 8 percent. When job knowledge is held constant, one standard deviation of improvement in basic skills raises productivity by only about 4 percent; and
- Large improvements in job knowledge are easier to achieve than equivalent improvements in basic skills.

Question: Have high rates of skill obsolescence drastically lowered the payoff to occupationally specific training?

No. Occupational knowledge is cumulative and hierarchical in much the same way that a grasp of mathematics and science is cumulative and hierarchical. Actually, skills and knowledge deteriorate from nonuse and forgetting much more rapidly than they become obsolescent.

Question: Does development of occupationally specific skills in school necessarily lower achievement in the academic arena?

Yes or no. The answer is yes if rigorous academic courses are sacrificed, but no if nonrigorous academic courses are the ones sacrificed. Academic achievement increases only if the standards of the academic courses are high and their content is substantial. Vocational courses sometimes contribute more to the development of basic skills than watered-down courses in academic subjects.

Question: What is the optimal intensity of the occupationally specific component of a high school vocational education program?

The payoff to three or four occupational courses is very high, but additional courses have no payoff. Complete specialization in vocational education is thus less effective than a curriculum providing both vocational skills and competency in basic skills.

Question: Are occupationally specific skills best learned in a classroom or on the job?

Most skills are best learned on a job, but employers cannot always be counted on to provide training. Consequently, schools should attempt to expand cooperative education, but provide shop-based training comparable to on-the-job experiences if cooperative placements cannot be arranged.

Policy implications

A major implication of the research is that benefits of developing occupationally specific knowledge and skills (the primary outcome of occupationally specific education) are derived only if such knowledge and skills are used. Thus it is legitimate for vocational educators to focus on occupationally specific training, but they should not disclaim responsibility for influencing whether the skills are used.

Another major implication is that it pays for vocational students to devote a major portion of their time to developing basic skills. Vocational students should be counseled against taking an excessive number of vocational courses.

The research I have summarized also suggests ways to meet these objectives. To help prepare youth to navigate the labor market, programs should ensure:

Careful counseling before training. A well-informed career choice needs to precede entry into intensive occupational training. Career exploration courses should be available to ninth and tenth graders considering entry into occupationally specific training, and each student should have an individualized employability plan.

Widescale cooperative education. Though most vocational students should participate in cooperative education during summers and in the final year of occupational training, only about one-tenth of the nation's high school vocational students now have coop jobs.

Help in obtaining good jobs. Schools can assist students by providing practice in writing resumes, interviewing, and employing effective modes of job

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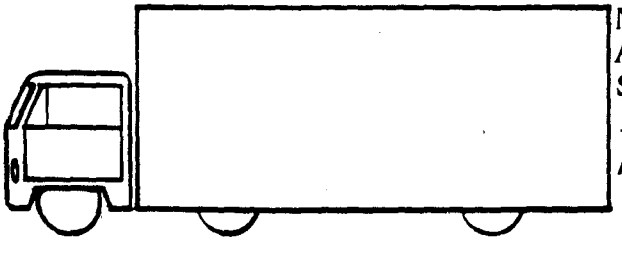

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searching. They can also help their graduates avoid unemployment and get better jobs, however, by involving employers in the planning and delivery of vocational education.

Close ties are especially beneficial in that they facilitate the flow of information between students and prospective employers. Students from disadvantaged backgrounds have special need for this kind of help, because their relatives and neighbors typically lack the work-world contacts of middle class families. Furthermore, the open communication is as good for schools as it is for students, since many students who are not motivated to study begin to apply themselves when they see the connection between today's school work and tomorrow's job.

To facilitate the flow of information between employers and students, schools need an equitable and efficient policy for releasing student records that provide employers with information on students' achievements.

Another possible policy direction: Encourage vocational teachers (not placement directors) to take responsibility for and devote time to the job placement of their students.

Helping to match employer and student needs in this way would require teachers to build and maintain trusting relationships with local employers. Teachers, therefore, would naturally deserve compensation for the time expended on the outreach work necessary to place students. Then, employer satisfaction with graduates, the wage levels of the jobs, and the quality of students' preparation should be evaluated, and when appropriate, rewarded.

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Development of a strong basic skills foundation. Everyone needs to be able to reason, solve problems, and communicate verbally and in writing. Responsibility for achieving these objectives should not rest with English and math teachers alone. Vocational teachers should reinforce—and demand—basic skills.

Vocational students should be encouraged to take the more demanding math and science courses, which they often avoid, so that they develop the skills that will be essential for later advancement. In some technical fields, courses in chemistry, physics, algebra, and trigonometry might be a required part of the curriculum.

High regard for achievement. Many students from disadvantaged backgrounds find academic learning diffi-

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cult. By ninth grade, many are so far behind that they have given up the hope of ever being academically successful. Occupationally specific education offers these discouraged students a new forum, one in which their effort can lead to rewards.

The recognition that students receive from participating in local and regional 4-H, VICA, and DECA contests helps them develop pride in their occupational skills and motivation to learn more of them. Award and honor systems should therefore be designed so

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that almost every student who makes the effort can receive at least one award or honor before graduation.

Use of competency profiles. In many of the best vocational programs, teachers and employer advisory committees devise a list of competency objectives for each field and agree on how to divide the responsibility for teaching these skills. At the beginning of a program, a student receives a competency profile checklist, and as competencies are developed, they are recorded on this document.

Competency profiles offer a number of advantages. First of all, competency goals can be tailored to the student's interests and capabilities, and progress toward these goals can be monitored and rewarded. The completed profile can serve, too, as a credential that assists in the placement of students in jobs and further training.

Competency profiles are motivating because students can see their progress and because the feedback is criterion- rather than norm-referenced. In other words, the ratings of competence that appear on the profile are relative to an absolute standard (you have this skill or you don't) and are not relative to other students' performance (this student did better than that one). The competency profile thus avoids the negative effect of one student's effort affecting another student's grade. That, in turn, encourages students to share their knowledge and teach each other.

Incentives in funding formulas

Another conclusion that can be drawn from recent research is that restructured state funding formulas could serve the disadvantaged more effectively.

State governments pay a major share of the costs of vocational education and thus have a responsibility to see that the money is well spent. Policymakers' past efforts to ensure quality by regulating vocational education delivery processes, however, have not been a success. The regulations are nearly impossible to enforce and can be counterproductive in some cases, since there is no single best method of serving students. Yet funding formulas exert such powerful effects on the behavior of local administrators that it is important to give careful thought to a formula's incentive effects.

State aid for vocational education should be based on outcomes, not inputs, and on students, not programs. In other words, the formula should reward success in serving students (instead of success in just recruiting them) and offer greater rewards for success with more challenging students.

Specifically, the formula should promote the revamping or discontinuation of programs that (1) do not place a respectable number of graduates in jobs or further education related to the training, (2) raise the earnings of program graduates above those of comparable nonvocational students, or (3) achieve some mix of well-defined economic and educational goals. Since dropout prevention is another important benefit of vocational education, it would also be appropriate for formulas to reward programs that most dramatically lower the dropout rates of high-risk students.

One of the concerns that has been expressed about such performance standards is that they may encourage creaming (inflating success rates by recruiting the best students). Since teachers quite naturally prefer to teach intelligent, well-behaved, motivated students, there will always be pressure to cream. Intensifying this tendency can be avoided, however, by devising a formula that offers larger rewards for success in serving more challenging students.

Outcomes like placement rates and subsequent job earnings, which justify

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occupationally specific vocational training, vary greatly from program to program. Much of the variation can be traced to features of the different programs. Research is telling us that under the right circumstances, vocational education can contribute in major ways to the successful transition of disadvantaged youth from school into the labor market. Our challenge now is to make sure that the right circumstances are in place.

About the Author
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