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**ABSTRACT**

Vocational education is one of the strategies most frequently cited as a dropout prevention measure, and some schools can document such program outcomes as increased student attendance, retention, and graduation rates. Disadvantaged youth who take vocational courses are less likely to be unemployed and more likely to obtain better-paying jobs. Dropout rates for youth from households with low-income, low-skill wage earners and limited educational backgrounds have been reported at about three times the rate of those from the high end of the socioeconomic scale. Dropouts are 2.5 times as likely to be unemployed as are their peers who graduated. By age 25, even employed dropouts earn only two-thirds the income of graduates. The costs of dropouts to society are staggering: \$41 billion per year spent on welfare programs; \$16 billion annually spent on teen pregnancy welfare; \$25 billion spent on remediation and lost productivity in U.S. businesses every year; and \$240 billion in lost lifetime earnings and taxes for each year's dropouts. Recent school reforms have negatively affected potential dropouts by producing watered-down courses for at-risk students and by requiring more academic courses at the expense of vocational course. A 2-year study of the plight of 16- to 20-year-old noncollege-bound students recommended continued public and private sector attention to cooperative education, internship, apprenticeship and other forms of hands-on, experiential learning. (The document contains 24 references.) (CML)

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National Center for Research in Vocational Education

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# TASPP BRIEF

Technical Assistance for Special Populations Program

## VOCATIONAL EDUCATION AND THE AT-RISK STUDENT

### Vocational Education and School Retention

Although no single policy or program could meet the needs of the diverse at-risk population, vocational education is one of the strategies most frequently cited as a dropout prevention measure (Hahn, Danzberger, & Lefkowitz, 1987). The National Assessment of Vocational Education (NAVE) study found that vocational education does help some students stay in school and that some schools can document such program outcomes as increased student attendance, retention, and graduation rates (Hayward, Adelman, & Apling, 1988).

### Economic Benefits of Vocational Education

The economic benefits of high school vocational education for minority youth and for youth from disadvantaged backgrounds can be substantial. Bishop (1988) found that youth from disadvantaged backgrounds who take vocational courses are less likely to be unemployed and more likely to obtain better paying jobs.

In examining the implementation, evaluation, and replication of exemplary vocational programs, NAVE researchers (Hayward et al., 1988) concluded that many of the innovative steps being taken by vocational education appear to be based on two widespread beliefs:

- Vocational education keeps students in school, offering an applications oriented approach to learning that many students, especially those with special needs, find more beneficial than the typically theoretical approaches of academic courses.
- Many vocational educators believe that, considering the changes in the job market, vocational courses would benefit all students regardless of their future education and career plans.

## Facts About High School Dropouts

While there is no typical dropout, low income students and minorities tend to leave school without graduating at disproportionately high rates (Smith & Lincoln, 1988). The National Association of Vocational Education Special Needs Personnel (NAVESNP, Definitions and Recommendations for the Disadvantaged) has identified the educationally disadvantaged and the economically disadvantaged as two of the largest at-risk groups today. Dropout rates for youth from households with low income, low-skill wage earners, and limited educational background have been reported at about three times the rate of those from the high end of the socioeconomic scale (United States General Accounting Office, 1986).

The consequences of dropping out are considerable and include both personal and social costs. The Appalachian Regional Commission (1987) reported:

- Only one in six jobs is suitable for a high school dropout.
- Dropouts are 2 1/2 times as likely to be unemployed as are their peers who graduated.

These odds are worsening as the job market increasingly requires more skill and knowledge. Along with decreasing employment opportunities, there is a tendency for these youth to end up in dead-end jobs (Miller, Nicolau, Orr, Valdivieso, & Walker, 1988). By age 25, even employed dropouts earn only two thirds the income of graduates (Ranbom, 1986). Consequently, the poverty rate for 16-21 year olds is increasing (Wetzel, 1987).

According to the William T. Grant Commission on Work, Family and Citizenship (1988, January), high-school dropouts suffer more unemployment than all other

### High Dropout Rates for Minority and Low Income Students

### Unemployment

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groups. In 1986:

- Only 55% of all dropouts under age 20 were employed, and of these only one in five was able to work full-time.
- Only 31% of all male dropouts (under age 20) were employed full time, down from slightly more than half in 1968. Among comparable females, only one in seven dropouts held full time jobs.

## **Social Cost of Dropping Out**

Society suffers considerably when youth drop out of school. Day and McCane (1982) reported that some 66% of the nation's prison population did not graduate from high school. In addition to the cost of crime, the costs of remediation, welfare, lost earnings, and lost taxes are staggering. The National Alliance of Business (1988, May 2) cited the following annual expenditures:

### **Cost of Unskilled Workers**

- \$210 billion for training by U.S. employers
- \$41 billion on welfare programs
- \$16 billion on teen pregnancy welfare costs
- \$25 billion on remediation and lost productivity in U.S. businesses
- \$240 billion in lost lifetime earnings and taxes for each year's dropouts

### **Cost of Underserving and Neglecting At-Risk Youth**

The costs of underserving and neglecting at-risk youth are increasing. In examining demographic trends for the year 2000, Johnston and Packer (1987) project that:

- Many low-skilled jobs will disappear.
- Most new jobs will require more education and higher levels of language, math, and reasoning skills.
- More than half will require some education beyond high school.
- Only 4% of the new jobs could be filled by individuals with the lowest levels of math and reading skills.
- The few low-skilled jobs that exist will be in industries that have experienced weak wage gains and growth.

### **Consequences of Not Training the Unskilled**

The consequences of not training the unskilled may be quite severe. Miller et al. (1988) have projected the following:

- Business and industry will lack prepared workers.
- Many U.S. workers may remain unemployed while skilled labor is imported.
- The nation's international competitive position may further deteriorate.
- The costs of welfare and other survival supports for the poor will mount.
- Crime, alcohol, and drug abuse will increase.
- Consumer markets will be weakened by the large numbers of unemployed and underemployed.
- The social security system will be placed at greater risk.
- Immigrants without professions or trades will experience economic and social difficulties.
- Antisocial behavior and intergroup tensions may rise, as young people realize that they have been locked out of upward mobility.

## **The Impact of School Reform on At-Risk Students**

### **Failure to Address the Needs of At-Risk Youth**

In examining the implementation and effects of high school graduation requirements, Clune, White, and Patterson (1989) found that the educational reform movement has resulted in increased graduation standards in 45 states.

Many critics of the reform movement point out that it fails to address the needs of the at-risk student. Some point out that Blacks and Hispanics have disproportionately high failure rates on competency tests (Ranbom, 1986). In fact, the reform movement has paid little attention to the needs of the at-risk until recently (Green, 1987). A major concern is that the new requirements have increased the pressure to drop out (McDill, Natriello, & Pallas 1986; Ranbom, 1986).

### **Reforms Have Not Improved the Quality of Education for At-Risk Youth**

Whether or not at-risk youth are under greater pressure to drop out, they have apparently not benefited from school reforms. Recent concern has focused on the quality of education being provided to at-risk students in order to keep them in school. In examining the effect of increased high school requirements, Clune et al.

(1989) concluded that reforms were most felt by the non-college bound students and that most of the additional courses being taken were at the remedial, general, or basic level. These watered-down courses, they point out, do not alter the stratified curriculum existing in most high schools nor do they significantly raise student achievement. In addition, these authors question whether the remedial academic courses were better than the electives and vocational classes which they replaced.

Vocational education has been hard hit by increased course requirements and competency tests. In several states, the addition of course requirements has been cited as making it difficult for youth to take vocational education, school-to-work transition-oriented work and other electives (Clune et al., 1989; Frantz, Strickland, & Elson, 1988; Hayward et al., 1988; Smith & Lincoln, 1988). There has been a shift from growth in the amount of vocational education taken to growth in mathematics, science, and foreign language credits (NAVE, 1989).

## Integration of Basic and Academic Skills Into Vocational Education Curriculum

### Academics and Vocational Course Work Should Be Integrated

In considering the impact which reforms have had on vocational education enrollment, Clune et al. (1989) have questioned whether the current reforms will in fact produce major gains in work skills.

The precise course exchange that occurred most frequently—general math and science for vocational courses—has some disturbing potential. *A Nation at Risk* decried the trend away from both academic and vocational courses to the general curriculum. Recent research concludes that wages and employment of non-college bound students benefit the most from a combination of academic and vocational courses and lose ground economically from extra academic courses alone (Kang & Bishop, 1988). The next generation of reform should consider different combinations of courses, including the option of cognitively demanding vocational education. (Center for Policy Research in Education, 1989, p. 3)

### Curriculum Should Include Vocational Education

Upon completion of a two-year study of the plight of 16-20 year old non-college bound youth in this country, The William T. Grant Foundation Commission on Work, Family and Citizenship (1988, November) recommended continued public and private sector attention to cooperative education, internship, apprenticeship, and other forms of hands-on, experiential learning.

In addition to providing economic benefits, vocational education may provide an alternative means of improving the basic and higher order thinking skills of youth who are at risk. While the potential contribution of vocational education to academic learning is unknown, much thought is being given to how education and training programs can teach basic skills that are job relevant, as well as analytical reasoning abilities that allow the transfer of skills from one job to another.

The integration of basic and academic skills into the vocational education curriculum has been recommended by the National Association of Vocational Education Special Needs Personnel (1989, July) and the National Center for Research in Vocational Education at the University of California, Berkeley (Benson, 1989).

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