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## The Federal Role in Vocational-Technical Education

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The federal government first began to support vocational education with the Smith-Hughes Act of 1917. Its passage was controversial since there was considerable opposition to a federal role in education, which was a state responsibility. Since that time, the federal government has had constant involvement with vocational education through Smith-Hughes and its successor acts, including the Carl D. Perkins Vocational and Technical Education Act, which is currently in effect. As recent legislation has primarily focused on supporting academic achievement, it is as yet unclear what the federal government's approach toward vocational education will be.<sup>1</sup>

Federal legislation must be reauthorized every five years, with an associated national study, the series of National Assessments of Vocational Education (NAVE). This pattern of constant re-examination has made federal support for vocational education somewhat unstable, and has resulted in multiple redefinitions of the purpose and nature of vocational education. Such reviews can have positive effects, because they enable adjustments to keep up with changing conditions and priorities. For example, the future orientation of federal involvement in vocational education will need to take account of the emergence of what we call the "education consensus." This consensus recognizes that there is a need for a better-prepared labor force with a large complement of competencies for a knowledge-based society; that education is a continuous, lifelong process; and that economic rewards increasingly accrue to those who earn degrees or other forms of credentials demonstrating educational achievement. The result of the consensus has been an "institutional transformation" of vocational education, with significant changes in how high schools provide it, and a new dominant role for community colleges and other postsecondary institutions.

While the states will likely continue to direct the course of their vocational education policies and programs, federal resources can be used to fund what states cannot do on their own. This Brief first discusses what the current vocational education needs are, and then outlines why the states are unable to meet them completely and why assistance by the federal government is justified. It concludes with

recommendations about what federal policy might do, especially given limited funding and the desire not to intrude on the prerogatives of the states.

## Current Vocational Education Requirements

To prepare students for high-paid, challenging employment, vocational education must take account of the "knowledge revolution" (or the "information society"), which is changing the nature of work and increasing the skills required in virtually all areas of employment. Employees need to have both higher *levels* of education—in most cases education beyond high school—and different *forms* of education, with a new focus on such higher-order competencies as problem-solving abilities, communication, and critical thinking skills. To keep up with technology and product changes in the business world, to be able to move among jobs as necessary, and to guard against job loss because of a skill gap or the replacement of permanent with temporary workers, individuals need to make a commitment to ongoing retraining through lifelong learning.

At the high school level, vocational education must focus on teaching higher-order technical competencies. Schools must develop higher standards for academic competencies and provide remedial education, if necessary, to ensure that students meet the standards. They must teach in ways that provide a deep understanding of both academic disciplines and occupational methods and procedures. They must strongly promote high school graduation, since the economic penalty for dropping out of school has gotten larger and larger. And finally, schools must promote access to additional educational institutions throughout the lifespan, not simply at the conventional ages of 6 to 22, through assessment, counseling, remediation, and other support functions.

Students should have access to postsecondary education, though not necessarily at the baccalaureate level. They should have completion, rather than merely enrollment, as a goal because attainment of a degree is usually necessary to realize economic benefits from a postsecondary education (Grubb, 1999). Indeed, vocational education programs at community colleges are now important as sources of occupational training, since high schools frequently struggle to offer relevant and sufficient training in the face of pressures to

<sup>1</sup>This Brief is based on a report written in March 2002, at the request of the Office of Vocational and Adult Education (OVAE) of the U.S. Department of Education. It is a general statement on the potential federal role in vocational education and does not directly address the proposal for reauthorization of the Perkins Act made public by the Department of Education in February 2003.

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concentrate on academics and limited vocational education budgets. Community college programs have become increasingly differentiated as the variety of occupations in the economy has expanded and as occupational preparation becomes formalized in colleges rather than developed on the job. In 1996, about one-half of sub-baccalaureate students majored in a vocational program area (Levesque et al., 2000).

## Benefits of Federal Support

The best justification for federal support for vocational education is simply that it can facilitate program improvement and promote equity, helping to overcome the inability to realize these goals at the state level. Federal involvement also demonstrates a recognition of the fact that education is a component of national economic growth and international competitiveness. It affirms a national commitment to preparing the labor force as a whole and serves as a national response to the growing need for skilled workers in new occupations (Karp, Jacobs, & Hughes, 2002). Aspects of vocational education that can benefit from federal resources include:

- The federal government, through economies of scale and breadth not available to states, can direct demonstration and pilot projects to develop and evaluate effective practices, and promulgate those practices proven effective.
- The federal government can more readily distance itself from the state and local politics that prevent acknowledgement of the need for reform and dispassionate analyses of innovations. It can circumvent problems of local control and commitments to local communities that often undermine the creation of coherent and effective state policies. And, it can help prevent inequities among states in education funding, leadership, and program coherence.
- Federal support can enable difficult-to-implement and expensive high-quality work-based learning (Bailey, Hughes, & Barr, 2000; Wieler & Bailey, 1997). A federal commitment to vocational education can help ensure that high school and community college programs do not succumb to pressures to adhere to academic values and norms at the expense of vocational competencies, or pressures to equip students with specific skills at the expense of providing a broader vocational education integrated with academic content.

## Options for Federal Policy

The federal government currently spends about \$1 billion on postsecondary vocational education, but its support constitutes only two percent of total spending on the programs (Grubb & Stern, 1989). It could easily spend billions more to equalize program quality across states; to provide all programs with an array of services, equipment, and materials; and to ensure college for all (particularly among low-income and minority youth). However, such substantial funding is not remotely possible.

This reality suggests that the obvious way to leverage relatively small federal sums should be to use

them to stimulate innovation and improvement. The goals should be to realize the education consensus and support programs that states and localities are unlikely to implement on their own.

Moreover, it makes sense to create separate pieces of legislation for secondary and postsecondary vocational education (or separate titles within one act) to accommodate the different reform issues at the secondary and postsecondary levels. This separation would permit a federal division of funds between the secondary and postsecondary functions. Currently, allowing each state to determine the division of the funding creates glaring discrepancies; in some states as much as 85 percent of the funds are allocated to secondary institutions, while other states divide them equally.

## Secondary Vocational Education

The institutional transformation of education over the twentieth century has resulted in a general consensus that specific vocational preparation should not be part of high school. The No Child Left Behind Act supports this idea in stressing the acquisition of basic academic competencies at all levels of the K-12 system, as do the many states. Nevertheless, there is a powerful role for new forms of vocational education—variously labeled “education through occupations,” “college and careers,” or simply the “new” vocational education—that integrate academic and *broad* occupational content. Administrators often facilitate this integration with novel structures including schools within schools (as in career academies), majors or clusters defined by broad occupations, or entire schools (including magnet schools) with a broad occupational theme. They incorporate paths to postsecondary education and forms of work-based learning as well, creating other forms of learning and bridges to employers (see Hughes, Bailey, & Mechur, 2001). The federal government can promote these new vocational education models in two important ways:

***Federal support of the integration of academic and vocational education through funding***—as has been the case since the 1990 Perkins Amendments—is a way of simultaneously reforming vocational education, creating high schools consistent with the education consensus, and serving the acquisition of basic academic and higher-order competencies.

***The development of assessments by the federal government that are more consistent with the education consensus and with “education through occupations.”*** Such alternate assessments would measure broader conceptions of competencies and a greater array of higher-order abilities. These are the learning goals of the education consensus, but assessments in many states still emphasize decontextualized facts and procedures, which can have the effect of narrowing the education of students, particularly low-income students.

## Postsecondary Vocational Education

The institutional transformation of the twentieth century has led to the bulk of pre-professional occupational preparation taking place in community

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colleges and a few technical institutes. The purposes of these institutions are now quite different from those of secondary schools, and the markets they serve are far more diverse and specialized. Further, the dual needs to implement the education consensus and to overcome the deficiencies of state and local policies suggest a number of specific postsecondary innovations that should be supported by federal funding:

**Continued integration of academic education and higher-order competencies into occupational programs.** While there are many ways to achieve such integration, and a great deal of progress has been made in some colleges (particularly in incorporating so-called SCANS skills), in general, these changes require considerably greater and sustained support (both financial and moral).

**Development of more effective forms of remedial or developmental education.** To meet student needs, postsecondary institutions have expanded remedial/developmental education, but have paid relatively less attention to their quality and effectiveness, though there are some promising innovations (such as learning communities combining developmental courses with occupational courses). Federal support for innovation in developmental education—not simply for conventional learning labs, for which many colleges use their Perkins funds—would benefit all postsecondary institutions.

**Support for work-based learning.** Arguments for some form of work-based learning as a complement to conventional college-based instruction are plentiful, but such efforts are spotty in community colleges. The development of experiments and demonstration projects to support work-based learning, and to examine the conditions under which it prospers, could be a federal role.

**Encouragement of more imaginative, substantive, and productive links to employers.** Collaborations may include participation in the development of skill standards or certification instruments, teacher preparation, curriculum development, and work-based learning (see Jacobs, 2000).

**Correction of the limitations of comprehensive and academic institutions.** Federal support might continue to fund vocational education equipment and materials, as it now does; career-oriented counseling, which is insufficient at most colleges; and placement activities, which are often weak.

**Connection of the community colleges and other postsecondary institutions with programs at the four-year and post-graduate level.** While it is entirely correct to concentrate the federal role at the sub-baccalaureate level of educational preparation, it would be shortsighted not to appreciate that almost all of the new vocations—such as information technology—are evolving into career pathways where a four-year degree is needed to move beyond the entry level. Many community colleges already have articulation agreements with four-year colleges, so federal funding should concentrate instead on more specific curricular links.

The problem with this list of potential federal supports is simply that there are too many possible

activities. It would be a mistake for the federal government to spread its resources too thinly. One solution would be for the Department of Education and Office of Vocational and Adult Education to concentrate on a number of demonstration or pilot projects in each area—e.g., placement services, work-based learning, and so on—rather than continuing to allow individual colleges to pick and choose among this long list, which dilutes the innovative potential of federal funds.

## Equity

Equity is clearly an important goal, but often in community colleges, equity-oriented programs result in balkanized and uncoordinated services, where some students receive counseling or tutorial support from special sources disconnected from the other services of the college, creating inefficiencies and inconsistencies and weakening the integration of such students into the college mainstream. Far too little money is distributed to make a major difference, though there is enough to create yet another set of programs and further disperse the mission and focus of vocational education.

A better approach is to emphasize overall improvements in the institutions and programs that students in need of special services are most likely to attend. Low-income, minority, and disabled students are much more likely to attend public community colleges than four-year colleges, and community colleges are committed to serving a broad diversity of students. Similarly, alternatives to the conventional college preparatory curriculum in the high school often serve (or are targeted towards) students at greater risk of dropping out. Improved remedial/developmental courses will disproportionately benefit at-risk students; improved methods of career counseling will help the large number of undecided students (“experimenters,” as they are often called) who flounder without direction; and work-based placements integrated with college (or high school) coursework will enable low-income students to stay in school. Concentrating upon skill standards and certification examinations will benefit individuals who are in need of immediate work.

## Potential Recipients of Federal Funds

Most federal funding for education, and for vocational education in particular, supports activities at the level of schools or colleges, but states could also be the targets of some federal support. Federal funding could enable states to implement the policies and innovations that are necessary to realize the education consensus and which they have been unable to develop on their own.

For example, very few states have implemented coherent policies for developmental education, although such programs are increasing and are critical to providing the basic competencies necessary for well-paid occupations. Many states have supported customized training for specific employers, but have not used customized training as a vehicle for work-based learning complementary to college-based programs. Most states have extremely awkward provisions for funding occupational facilities and materials, and vocational education would benefit from efforts to solve

funding allocation problems. The transition from high school to community college is still uneven and plagued with inconsistencies in preparation (including deficiencies in academic competencies), so a few pilot projects to provide models of closer integration between secondary and postsecondary education might help states overcome this problem.

The federal government could also promote the development of new models for vocational education administration. Currently, vocational educators are separated from the mainstream of education, and while this division has provided them with an insulated means of upward mobility out of the classroom and into administration, it has also provided few common standards or benchmarks for professional practice. Further, vocational education leaders need significant retraining to understand fully the occupational changes around them and provide programmatic leadership.

### The Structure of Federal Grants and the Activities of the Federal Government

If federal policy is to provide broad support for a large number of educational institutions, as it does in the No Child Left Behind Act, then formula funding providing some resources to every institution is appropriate. If, however, the purpose of federal funding is to promote program improvement, then a stronger alternative is to provide project grants to specific institutions for support of specific purposes. Doing so would allow the federal government to specify more clearly which improvements it wants to support, to be sure that institutional recipients use funds for that purpose, and to evaluate the results of innovation. The specification of project grants, the procedures for allocating such grants, and the monitoring and evaluation of the results are all more costly than simply allocating funds according to a formula, however.

In addition, a federal role in fostering innovation requires greater expertise and imagination on the part of federal officials, as executing innovations requires a deeper understanding of schools and colleges than does the simple distribution of money to states and localities. Therefore, knowledge of community colleges at the federal level needs to be strengthened.

In the end, the challenges of improving the quality of occupational education are not especially different from those in any other area of social policy. A clear sense of purpose and a recognition of the strengths and weaknesses of different institutions, governments, and

practices will go a long way toward creating coherent policy and improved programs. The education consensus, despite some limitations, provides the purpose and direction that can motivate federal policy in several areas, including vocational-technical education. The recognition of institutional changes, and knowledge of what different levels of governments do well and poorly, provide other guidelines for federal policy. And so the possibility exists for individuals, institutions, governments, and grantmakers to work together, serving both their own and the national interest, to improve the quality of education for the next generation.

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