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ABSTRACT

This document, the fourth of five volumes that comprise the final report of the National Assessment of Vocational Education focuses on programs and services provided for special population groups targeted by the 1990 Perkins Act. Chapter 1 assesses the extent to which states and localities are fulfilling responsibilities concerning special population students, reviews the extent to which localities involve this population in Perkins activities, and examines supplemental services localities provide. Chapter 2 examines Perkins Act programs for sex equity and single parents, single pregnant women, and displaced homemakers. It explores the concentration and targeting of funds, activities and services offered by localities, the Perkins Act's effects on service provision, and state sex equity administrator's views on effects of the Perkins Act. Chapter 3 provides an overview of the Native American population and the 38 tribally run programs receiving Perkins funds and summarizes case studies of 5 funded sites. Chapter 4 provides an overview of the correctional population and of education issues concerning this population and examines allocation and uses of Perkins funds in programs for juvenile and adult criminal offenders. Chapter 5 reviews the extent to which minority students participate in secondary and postsecondary vocational student organizations and considers factors that influence their participation. Endnotes follow each chapter. Data tables are appended. (YLB)

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VOLUME IV

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NATIONAL ASSESSMENT
OF VOCATIONAL EDUCATION

FINAL REPORT
TO
CONGRESS

VOLUME IV

ACCESS TO PROGRAMS AND SERVICES FOR SPECIAL POPULATIONS

Lisa Hudson

Office of Research

Office of Educational Research and Improvement
U.S. Department of Education

July 1994

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PREFACE

This is the fourth of five volumes in the Final Report of the National Assessment of Vocational Education, mandated by Congress in the 1990 Perkins Act and prepared in the Office of Research, Office of Educational Research and Improvement (OERI). The Final Report substantially expands and updates the Assessment's Interim Report, presented to Congress in January, 1994.

This volume contains five chapters written by Lisa Hudson:

Chapter 1. State and Local Responsibilities Concerning Special Population Students

Chapter 2. Programs for Sex Equity and Single Parents, Single Pregnant Women, and Displaced Homemakers

Chapter 3. Vocational Education Serving Native Americans

Chapter 4. Vocational Education in Correctional Facilities

Chapter 5. Minority Participation in Vocational Student Organizations

Chapters 3, 4, and 5 are new. The other chapters, earlier versions of which were included in the Interim Report, also contain new material, including survey data collected in 1993.

Because of inconsistencies between Chapter 1 of this volume and Chapter 1 of Volume V in the advance version of this report delivered to Congress in late June, 1994, the data on the uses of Perkins funds have been reanalyzed, and the discussions of the value of services for special population students in the chapter on state and local responsibilities has been revised.

While conducted within OERI, this assessment is an independent study and does not necessarily reflect the views of OERI or the U.S. Department of Education.

David Boesel
Director, National Assessment
of Vocational Education

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INTRODUCTION

Federal funding for vocational education began with the Smith-Hughes Act in 1917, when vocational education programs were rarely offered in public schools. The basic goal of the Smith-Hughes Act was to help localities develop vocational programs, both to encourage students to stay in school, and to produce graduates with the skills needed to work in an industrialized economy.

By the 1960s, vocational programs were fairly common, and a new emphasis seemed necessary. Federal legislation was refocused on two goals: the improvement of vocational education programs, and the provision of programs and services for students with special educational needs. These dual goals have remained in subsequent legislation, including the 1990 Perkins Act.

These two basic Perkins Act goals are examined in two volumes of this Report. Program improvement efforts were discussed in Volume III. This volume focuses on programs and services provided for special population groups targeted by the 1990 Perkins Act.

BACKGROUND

In the aftermath of the civil rights movement, the Congress became increasingly concerned with educational equity. Evidence that disabled and educationally disadvantaged students were sometimes excluded from vocational education programs[1] led the Congress to make improved access for these students a goal of the 1963 Vocational Education Act, and expenditures in line with this goal were listed among the allowable uses of federal funds. As this new goal initially had little effect, it was given some teeth in the 1968 Amendments — disabled and disadvantaged students were explicitly defined, and pools of funds were set aside within the Act to provide services for these students.

Separate "set-asides" for disabled and disadvantaged students seemed an effective strategy, as it "resulted in more funds expended on these groups and in increased enrollments."[2] With this success under their belt, legislators turned to other needy groups. In 1974, the needs of limited English proficient (LEP) students were addressed through provisions for bilingual vocational training, and in 1976 these students were made eligible for part of the disadvantaged set-aside. Programs for Native American students were also added in 1974, through competitive grant funds for tribally run vocational education programs. State-administered grants for the elimination of sex bias and sex stereotyping in vocational education were added in 1976.

Finally, in 1984, the Carl D. Perkins Vocational Education Act added a one-percent set-aside for states to fund vocational programs for criminal offenders, as well as funds for state grants for single parents. To further ensure equal access,

the Act also added an entitlement provision that requires localities receiving disabled and disadvantaged set-aside funds to provide supplemental services for these students; an equal access provision requires localities to ensure full access for disabled and disadvantaged students in vocational education recruitment, enrollment, and placement.

The 1990 Perkins Act

In its study of the 1984 Perkins Act, the last National Assessment of Vocational Education noted that the splitting of Perkins funds into numerous pots of money was one reason why many localities received too few Perkins funds to allow for meaningful vocational program improvement. This problem is of particular concern in sites serving high concentrations of "special population" (disabled, educationally disadvantaged, economically disadvantaged, or limited-English-proficient) students — as these sites tend to have the greatest need for program improvement funds.

The 1990 Perkins Act incorporates changes to address this problem: The disabled, disadvantaged, and adult set-aside funds were merged with program improvement funds, and these "basic grant" funds were targeted to localities that serve the highest concentrations of special population students. To ensure that basic rights and services for special population students secured through previous legislation would not be lost, the equal access assurances were expanded, and numerous state and local responsibilities concerning special population students were included. Programs for other special student groups — sex equity and single parent programs, vocational programs for correctional offenders, tribally run vocational education — were carried over intact, with little or no change.

Finally, because vocational student organizations (VSOs) provide vocational students with unique and valuable leadership opportunities, support for these programs is encouraged in the Perkins Act.

ISSUES ADDRESSED IN THIS VOLUME

This volume examines how each of the Perkins Act's "special" student groups — the disabled, disadvantaged and LEP, those targeted by single parent and sex equity grants, criminal offenders, and tribal Native Americans — is served by the 1990 Perkins Act, focusing on the education programs and services provided for each group. The volume also includes an examination of minority participation in vocational student organizations, as this issue concerns an additional special vocational student group. Those students defined as special populations within the regular school system (disabled, educationally disadvantaged, economically disadvantaged, and LEP students) comprise the largest special group targeted by the Perkins Act, and are examined first.

Responsibilities Concerning Special Populations

One of the fundamental goals of the Perkins Act is to ensure equal access to vocational education for special population students. To ensure that this goal is met, the 1990 Perkins Act requires that states and localities monitor these students' participation, and include special population representatives in various Perkins planning and development activities. This raises the following issue:

- To what extent are states and localities fulfilling their responsibilities concerning special population students?

This issue is addressed in Chapter 1, dealing with state and local responsibilities concerning special population students. The chapter examines responsibilities carried out within state education agencies and states' efforts to help localities meet equal access provisions, and reviews the extent to which localities involve special population representatives in Perkins activities. The chapter also examines the nature and extent of supplemental services that localities provide for special population students.

Services for Special Population Students

One of the most significant changes in the 1990 Perkins Act was the elimination of disabled, disadvantaged, and adult set-aside funds. To ensure that this did not result in a reduction of supplemental services for disabled, disadvantaged, and LEP students, the 1990 Perkins Act expanded the assurances it requires for equal access and service provision. But the concern remains:

- Have services for special population students been reduced as a result of the loss of set-aside funds?

Chapter 1 also examines this issue. The chapter compares the level of service provision between funded and unfunded localities, and changes in services before and after the implementation of the 1990 Perkins Act.

Perkins Programs for Other Special Groups

Specific Perkins funds are also provided to encourage programs and services for other special needs groups. These include sex equity and single parent programs, funded through state grants to local schools and other service providers; tribal vocational education programs, funded through national grants directly to tribal organizations; and vocational education for criminal offenders (those in correctional facilities), funded through state grants to state correctional education agencies.

Although these special groups receive Perkins funds through different funding mechanisms with different priorities, the basic goal for each group is to provide

access to quality vocational education programs that improve their opportunity for labor market success. Thus, for each of these special groups, we ask the same fundamental questions:

- How are Perkins funds allocated among the target populations? What types of vocational programs and services are funded? How can the Perkins Act better meet the needs of these groups?

These questions are answered in Chapters 2-4. Chapter 2 examines Perkins Act programs for sex equity and single parents, single pregnant women, and displaced homemakers. This chapter explores the concentration and targeting of sex equity and single parent funds, the activities and services offered by localities, the Perkins Act's effects on service provision, and state sex equity administrators' views on the effects of the Perkins Act.

Chapter 3 reviews vocational education serving Native Americans. The chapter provides an overview of the Native American population and of the 38 tribally run programs receiving Perkins funds. It then summarizes case studies of five funded sites, including issues that affect program success.

In Chapter 4, on vocational education in correctional facilities, we provide an overview of the correctional population and of education issues concerning this population, then examine the allocation and uses of Perkins funds in programs for juvenile and adult criminal offenders.

Minority Participation in Vocational Student Organizations

Since membership in VSOs is considered a valuable educational opportunity, vocational students of all races should be able to participate equally in these programs. The Congress is concerned about this issue, and included in the 1990 Perkins Act a mandate for the National Assessment to examine the degree to which minority students are involved in VSOs:

- Do minority students participate in VSOs to the same extent as other students?

Chapter 5, on minority participation in vocational student organizations, reviews the extent to which minority students participate in secondary- and post-secondary-level VSOs, and considers a number of factors that seem likely to influence minority participation in VSOs.

ENDNOTES

1 See Committee on Education and Labor, House of Representatives (1968), *The Vocational Education Amendments of 1968* (Report 1647), p. 68, for a discussion of Congressional concerns about educationally disadvantaged students; Committee on Education and Labor, House of Representatives (1976), *The Vocational Education and National Institute of Education Amendments of 1976*, p. 48, for a discussion of concerns about the use of separate vocational classes for educationally disadvantaged and disabled students; and Committee on Education and Labor, House of Representatives (1984), *The Vocational-Technical Education Amendments of 1984*, p. 6, for a discussion of the continued underrepresentation of disabled students.

2 Millsap, M.A., & Muraskin, L.D. (In press.) Federal vocational education policy in the U.S.. In T. Husen and T.N. Postlethwaite (Eds.), *The International Encyclopedia of Education, Second Edition*, Pergammon Press.

CHAPTER 1

STATE AND LOCAL RESPONSIBILITIES CONCERNING SPECIAL POPULATION STUDENTS

INTRODUCTION

Federal vocational education legislation has a 25-year tradition of attention to the needs of disadvantaged and disabled students. However, the main method of serving these students, set-aside funds, was abolished in the 1990 Perkins Act. To guard against this change resulting in a loss of attention to special population students (the disabled, educationally and economically disadvantaged, and limited-English-proficient students), the 1990 Perkins Act expanded state and local requirements and responsibilities regarding these students. In this chapter, we assess the extent to which states and localities are fulfilling these responsibilities, the effect of the elimination of the set-aside funds on the provision of services for special population students, and overall perceptions of the effects of the Perkins Act on special population students.

Looking first at state responsibilities, we examine state monitoring of special population student enrollments, the involvement of state representatives for special population students in reviewing Perkins state plans and other Perkins initiatives, and state efforts to provide localities with guidance on equal access. As we will see, all but a few states appear to be fulfilling their responsibilities toward special population students.

At the local level, we examine input into local planning efforts and the services provided to special population students. We find that school districts could improve their efforts to seek input into Perkins planning, from special population representatives as well as others. In the area of service provision, we find that Perkins-funded localities offer a wide range of supplemental services for special population students, and more than their unfunded counterparts. We also find no evidence that service provision has been adversely affected by the elimination of the set-aside funds.

We then review local administrators' perceptions of the effects of the Perkins Act on special population students, as well as the views of school staff at Community Case Study sites. While these individuals have positive views of the Act's effects on special population students in general, some issues are raised concerning the Act's emphasis on services over program improvement.

STATE RESPONSIBILITIES FOR SPECIAL POPULATION STUDENTS[1]

The Perkins Act gives state offices of vocational education a number of responsibilities concerning special population students, including:

(a) Requirements for input of state personnel responsible for disabled, disadvantaged, and limited English proficient (LEP) student programs in the review of local plans and the selection of the committee of practitioners (who develop the state system of performance standards and measures).[2]

(b) Adjustments of the state performance standards and measures system "to encourage service to targeted groups or special populations."[3]

(c) Assurances that the state will monitor the degree to which the needs of special population students are met.[4]

(d) Assurances that the state will guarantee equal access to quality vocational education programs for special population students and will establish procedures for community input at the state and local levels.[5]

The clear intent of these mandates is to guarantee that states involve special population representatives in planning and implementing the Perkins Act, and that states play a proactive role in ensuring equal access to quality vocational education for special population students.

In this section, we examine the extent to which states fulfill these responsibilities, using Omnibus and Followup Survey data obtained from state and local vocational education administrators. (See the Technical Appendix in Volume V for information on these surveys and on the Community Case Studies, discussed later.) We divide states' responsibilities into two types: activities within state agencies (e.g., data collection), and state assistance to localities. These are examined first at the secondary level and then at the postsecondary level.

Secondary-Level Activities Within State Agencies

In 1992–93, 57 percent of state secondary vocational education administrators reported that their responsibilities concerning special populations had increased since the implementation of the 1990 Perkins Act, and 98 percent reported that these responsibilities had increased or remained the same. Only the development of performance measures and the coordination of vocational and other education programs (activities mandated or encouraged by the Perkins Act) show greater increases over this period.

These data suggest that state offices of vocational education are, on the whole, responsive to Perkins concerns that states address the needs of these students. How well are the states doing in more specific areas?

Monitoring Participation. The Perkins Act requires that states monitor the access of special population students to vocational education. One basic way to do this is to collect information on student participation in vocational education. This is almost universally done. In 1992–93 only one state did not collect information on the enrollments of secondary-level disadvantaged, disabled, or LEP students in vocational education. All other states collect information on all three types of students.

Not surprisingly, vocational enrollment data are collected more often than are the more useful (but more complicated) data on vocational program completers (see Table 1.1). Fifty (of 51) states collect enrollment data, but only 42 to 43 collect completion data. States also tend to collect data on all three special population groups rather than just one or two, suggesting that states are responsive to the federal definition of special population students.

Table 1.1
Percent (and Number) of States Collecting Data on Rates of Vocational Education Participation by Secondary Special Population Students, by Type of Student, 1991–92 and 1992–93

	1991–92	1992–93
Total vocational enrollments collected for:		
Disabled students	92 (47/51)	98 (50/51)
Disadvantaged students	94 (48/51)	98 (50/51)
LEP students	92 (46/50)	98 (50/51)
All 3 student groups	92 (46/50)	98 (50/51)
Vocational completers data collected for:		
Disabled students	78 (40/51)	84 (43/51)
Disadvantaged students	78 (40/51)	84 (43/51)
LEP students	78 (39/50)	82 (42/51)
All 3 student groups	78 (39/50)	82 (42/51)

Sources: Omnibus and Followup Surveys of State Directors of Secondary Vocational Education

These state efforts represent a slight increase over data collected in 1991–92. For example, 50 states collected total vocational enrollment counts for special population students in 1992–93, compared to no more than 48 states in 1991–92; 42–43 states collected data on vocational completers in 1992–93, compared to no more than 40 in 1991–92.

For state monitoring of the access and participation of special population students to be effective, localities must use consistent, standardized definitions for student groups. Without these, the reported data are unlikely to be comparable, and can be compromised if inappropriate definitions are used. Thus, providing definitions for localities to use is an essential part of any state effort to collect valid and reliable information on special population students.

In 1991–92, most states (94%, or 48 of 51) provided standard definitions for localities to use in defining the three major special population groups. However, two states did not have definitions for any of these students, and one had definitions only for disadvantaged and LEP students. These three states are unlikely to collect valid state-level data until they adopt standard definitions.

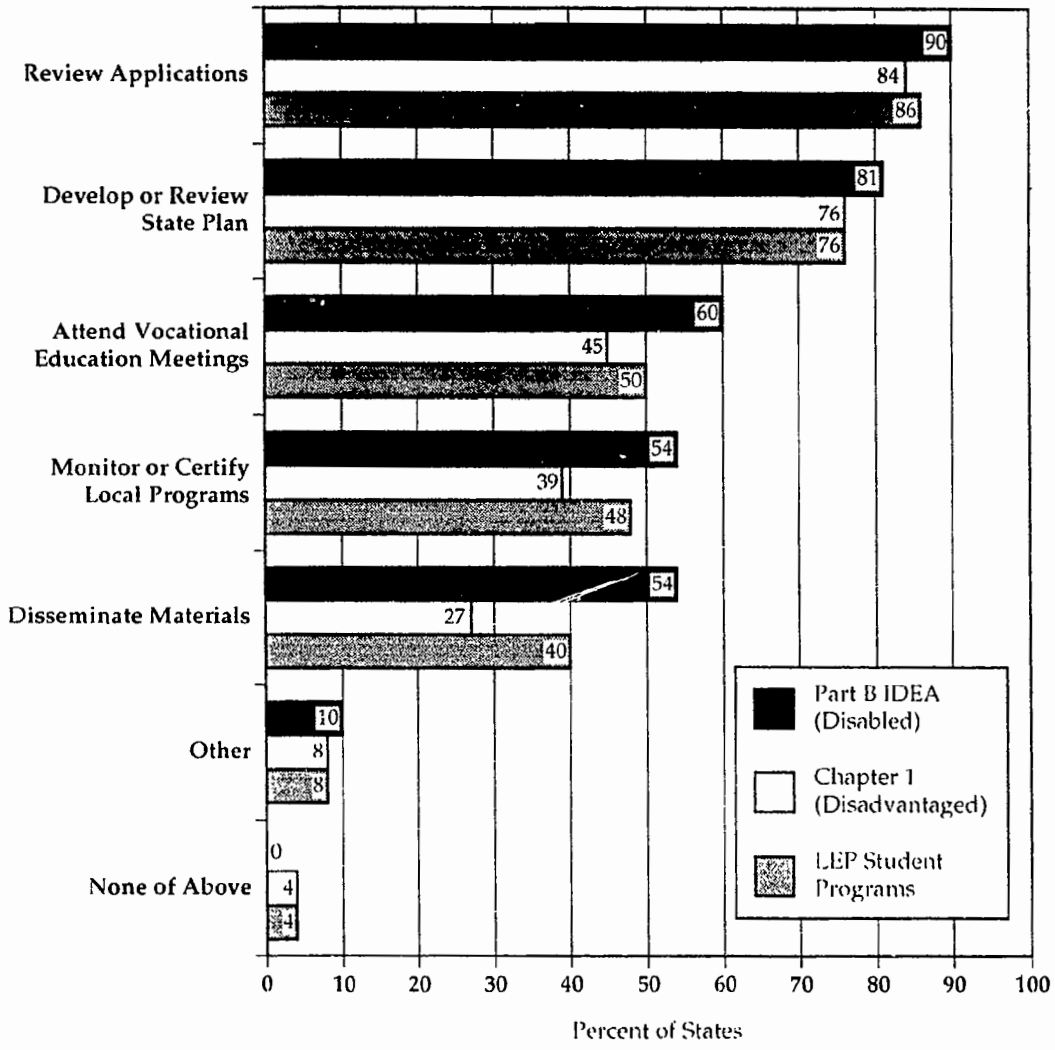
Input of State Special Population Representatives. All 50 states, the District of Columbia, and Puerto Rico are required by the Perkins Act to have the Perkins applications from localities reviewed by the state officials who are responsible for the following programs: (a) Part B of IDEA (disabled students' representative); (b) Chapter 1 of Title I of the ESEA (disadvantaged students' representative); and (c) LEP student programs (LEP students' representative).

Within these 52 "states," 40 (83%) report that all three of these individuals reviewed local applications in 1991–92. However, in five states none of them reviewed applications, and in three states only one or two were involved in reviews. (Data are missing for four states.) Thus, 8 to 12 states are not in full compliance with the law.

Levels of involvement for special population representatives are significantly lower for activities that relate to other Perkins mandates (see Figure 1.1 and Appendix Table A-1.1). The Perkins Act requires that state special population representatives supervise the implementation of the Act, and that states appropriately monitor the provision of vocational education to special population students.[6] These requirements imply that special population representatives should have input into the Perkins state plan and should monitor local programs.

In fact, these representatives help develop or review Perkins plans in no more than 81 percent of the states (38–39 states), and monitor or certify local programs in roughly half the states (20–26 states). To some extent, these lower levels of compliance may reflect time constraints on increasingly burdened state officials.

Figure 1.1
States Reporting Perkins Roles of State Officials Responsible for Special Population Groups, by Official's Responsibility, 1991–92



Source: Omnibus Secondary State Survey

Input Into the Development of Performance Standards and Measures. The Perkins Act does not mandate that special population representatives be directly involved in developing the state system of performance standards and measures. However, their input is strongly implied by the uses to which this system is to be put (i.e., monitoring special population students' participation and success in

vocational education) and by requirements to include incentives or adjustments for special populations.

The Omnibus Survey reveals that by 1991–92, representatives of special populations had been consulted in the process of developing performance standards and measures in most or all states. All of 48 responding states reported that these individuals were involved, although in eight of these states they were consulted only once or twice. In the remaining 40 states, special population representatives were consulted regularly or "played a major role."

On average, the involvement of special population representatives was lower than that of state vocational education officials, about the same as that of school administrators, and higher than that of employers, parents, and students (see Appendix Table A-1.2). Overall, these data suggest that special population representatives typically have a fairly high level of involvement in the development of the vocational performance measurement system.

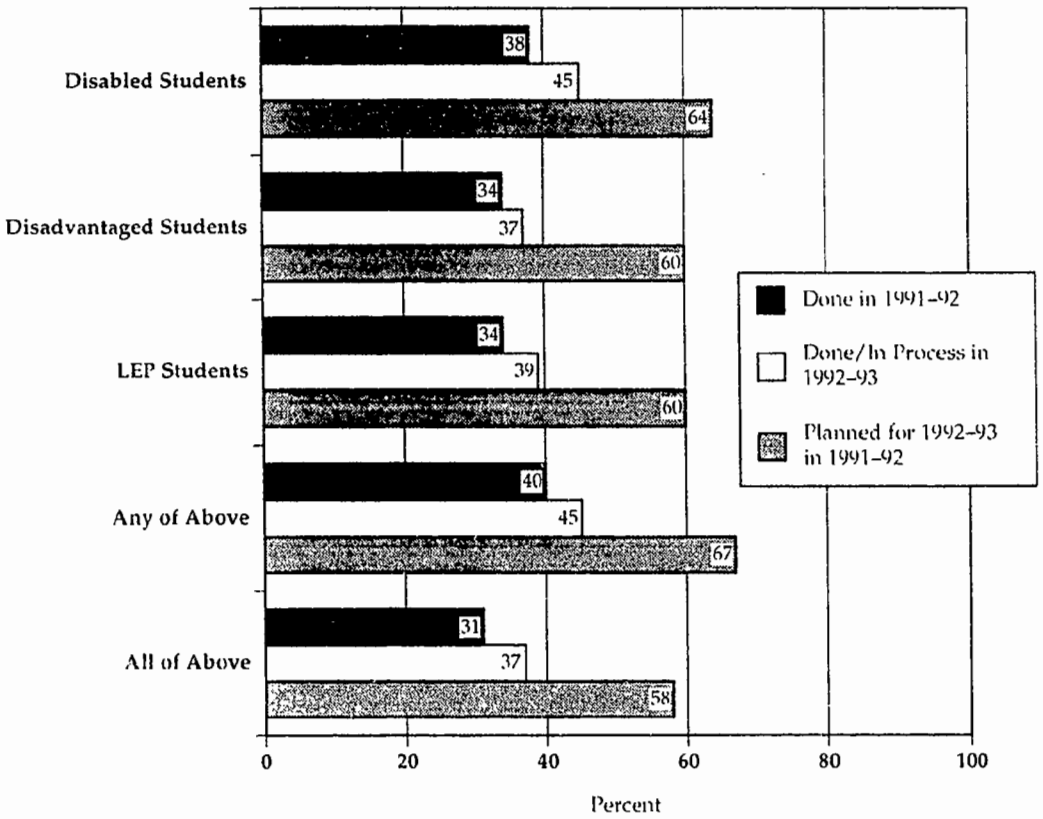
As mentioned above, the Perkins Act also requires that the performance measurement system include "incentives or adjustments that are designed to encourage service to targeted groups or special populations."[7] The intent of this provision is unclear; it could refer to efforts to ensure that all special needs students receive the supplemental services they require, or to efforts to ensure that they are not denied access to vocational education programs as a result of increased accountability. The latter is a common problem in educational accountability systems, as the pressure to have favorable student outcomes encourages "creaming" — the enrollment of only the higher achieving or most promising students in programs that are part of an accountability system.

We assume that efforts to avoid creaming are what motivated this Perkins provision. As Chapter 1 of Volume II reveals, vocational programs currently show no evidence of creaming students — in fact, the more able students are leaving vocational education. However, as new reforms such as integration and tech prep are implemented, and student outcomes are used to evaluate program quality, the access of special needs students to vocational education programs could become threatened. To avoid this problem, the accountability system must include provisions or adjustments that take student composition into account.

A simple adjustment would set lower standards for schools or districts serving higher concentrations of special population students. This alternative would create a multi-status education system that accepts rather than challenges the lower expectations traditionally held for certain groups of students. A more reasonable adjustment would separate student composition from program effects. For example, a state could compare the performance of each school district to other districts enrolling similar proportions of special population students, rather than to the "average" district. The lowest performing districts in each group would then be targeted for improvement.

Are states making such adjustments to their performance systems? In 1991–92, about one-third of states reported that they had established procedures to adjust performance standards for special population students, and about two-thirds planned to do so in 1992–93. These states were apparently overly optimistic — when asked about this issue again in 1992–93, fewer than half the states had established adjustment procedures or were in the process of doing so (see Figure 1.2).

Figure 1.2
Percent of States Establishing Procedures to Adjust Performance Standards for Secondary Special Population Groups, by Year



Sources: Omnibus Secondary State Survey and Followup Survey

We cannot tell from these data how appropriate states' adjustments are. However, the fact that so few states have made adjustments, and that fewer have made them than expected to do so, suggests that this is an area in which states need more assistance and direction. If states do not develop ways of comparing

schools and districts that take into account their differing student compositions (while still maintaining high standards), the performance systems are likely to be resisted by localities; localities also might be encouraged to limit access to vocational education to higher-achieving students.

State Assistance to Secondary-Level Localities

In 1991–92, districts that received Perkins funds did not report strong state support for most initiatives related to the Perkins Act, including guidance on procedures for providing equal access. For example, one-quarter of Perkins-funded districts felt that their states provided "little or no support" on this issue, while 58 percent rated state support as adequate, and only 18 percent rated it as very good. However, this lukewarm rating was given to most other Perkins-related topics as well; for example, virtually identical ratings were given for "state leadership in general."[8]

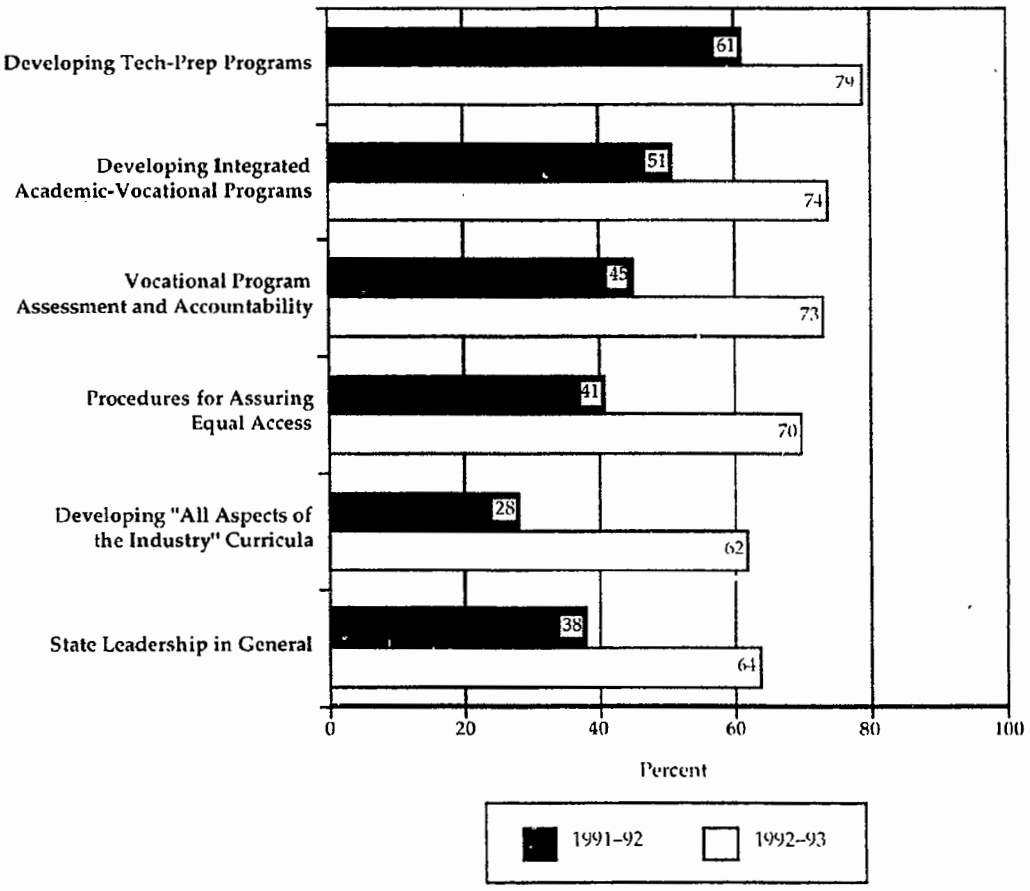
The Followup Survey suggests that states are improving their assistance to localities as time passes. As Figure 1.3 shows, many more districts reported an increase in state activity related to equal access (and on other Perkins-related topics) in 1992–93 than in 1991–92. Likewise, while only one-fourth of districts had received in-service training on equal access in 1991–92, 80 percent received training on this topic in 1992–93. Finally, by 1992–93, virtually all states (98%) had established procedures to help secondary localities ensure equal access, compared to 80 percent of states before 1991–92, and 92 percent in 1991–92 (see Appendix Table A-1.3). Many states apparently needed more than a year to develop and implement their own Perkins-related outreach and assistance efforts.

We next examine the roles of postsecondary state agencies. At this level, the Omnibus Survey contains questions parallel to those at the secondary level on activities within state agencies, and on providing localities with written guidance or information on equal access. As we will see, the postsecondary data mirror the secondary data, although lower levels of state leadership and support are evident by some measures.

Postsecondary-Level Activities Within State Agencies

About half of state offices of postsecondary vocational education (44%) report increases in their "responsibilities concerning special populations" from 1990–91 to 1992–93, and 92 percent report an increase or no change. This is a smaller increase than occurred at the secondary level, and less than postsecondary agencies had reported in 1991–92 (when 67% reported increases in this area). Postsecondary state agencies seem to focus relatively more of their efforts on the evaluation of local programs and data collection efforts (see Chapter 2 in Volume V).

Figure 1.3
Percent of Districts Reporting an Increase in State Support for Each Activity, by Year



Sources: Omnibus and Followup District Surveys

Monitoring Participation. As of 1992–93, all but one state (of 49 reporting) collected postsecondary vocational participation data on disadvantaged, disabled, or LEP students, but only 43 (88%) collected data on all three special population groups. As at the secondary level, enrollment data are almost universally collected, with data on vocational completers collected less often (see Table 1.2).

Slightly fewer states than at the secondary level provide standard definitions of special populations for localities to use. In 1991–92, 85 percent of postsecondary state agencies (40 of 47) had definitions for all three student groups, compared to 94 percent of secondary agencies (48 of 51). Five states had no postsecondary

Table 1.2
Percent (and Number) of States Collecting Data on Rates of Vocational Education Participation by Postsecondary Special Population Students, by Type of Student, 1991–92 and 1992–93

	1991–92	1992–93
Total vocational enrollments collected for:		
Disabled students	82 (36/44)	92 (45/49)
Disadvantaged students	82 (36/44)	98 (48/49)
LEP students	81 (35/43)	92 (45/49)
All 3 student groups	81 (35/43)	88 (43/49)
Vocational completers data collected for:		
Disabled students	77 (34/44)	73 (36/49)
Disadvantaged students	77 (34/44)	80 (39/49)
LEP students	77 (33/43)	73 (36/49)
All 3 student groups	77 (33/43)	69 (34/49)

Sources: Omnibus and Followup Surveys of State Directors of Postsecondary Vocational Education

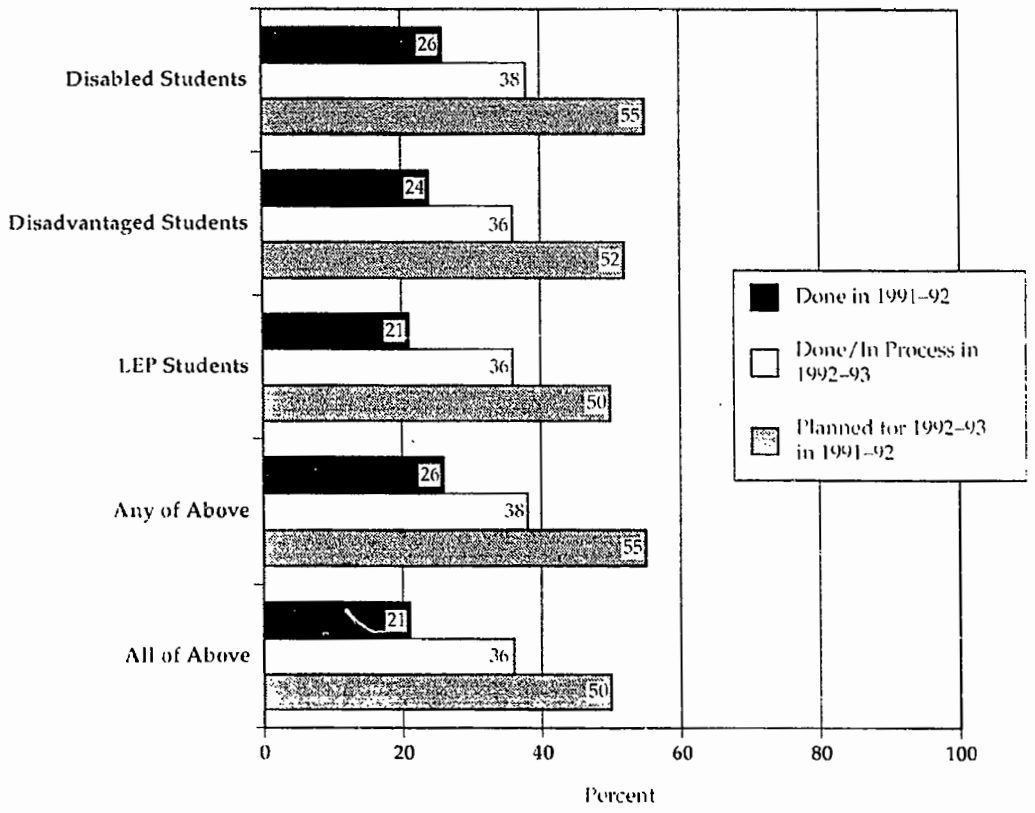
definitions, and two had definitions for one or two student groups. Thus, as of 1991–92, at least seven states were unlikely to collect valid postsecondary data on special population enrollments.

Input Into the Development of Performance Standards and Measures. As at the secondary level, special population representatives were one of the more frequently consulted groups during the development of the state performance measurement system (see Appendix Table A-1.4). In three-fourths of the states these representatives were consulted regularly or played a major role in this process, but in at least three states these individuals were not consulted. This is a slightly lower level of involvement than in secondary education. However, the postsecondary planning process also seems to have less involvement by other groups (e.g., employers, students, unions).

In 1991–92, postsecondary agencies were less likely than secondary agencies to be adjusting performance standards for special population enrollments, but by 1992–93, both agencies were equally likely to be making these adjustments (see Figures 1.4 and 1.2). Like their secondary counterparts, postsecondary agencies

also overestimated their plans to make these adjustments, and fewer than one-half are currently adjusting their performance measurement system for any special population group. This again raises the concern of possible "creaming" within those states that do not account for differing concentrations of special population students in their performance measurement systems.

Figure 1.4
Percent of States Establishing Procedures to Adjust Performance Standards for Postsecondary Special Population Groups, by Year



Sources: Omnibus Postsecondary State Survey and Followup Survey

Postsecondary State Assistance to Localities

Postsecondary institutions are typically more independent of their state education agencies than are secondary districts, so postsecondary agencies do not play the same support role as secondary agencies. However, they are still responsible for issuing guidance on compliance with relevant state and federal

policies, including the Perkins Act. In this section we examine the extent to which postsecondary agencies have established procedures or guidelines to ensure that postsecondary institutions offer equal access to vocational education programs.

Before the 1990 Perkins Act was implemented, only 29 state postsecondary agencies (63%) had established procedures to help ensure equal access in postsecondary institutions, and only one additional state did so in 1991–92 (the first year of implementation). However, by 1992–93, virtually every state (49, or 98%) had established some procedure to help postsecondary institutions provide equal access. Monitoring enrollments appears to be the preferred method of ensuring access and is used by 94 percent of postsecondary agencies (see Appendix Table A-1.5). Secondary agencies are equally likely to have procedures for ensuring equal access in local education agencies, but are more likely than postsecondary agencies to issue guidelines for ensuring equal access.

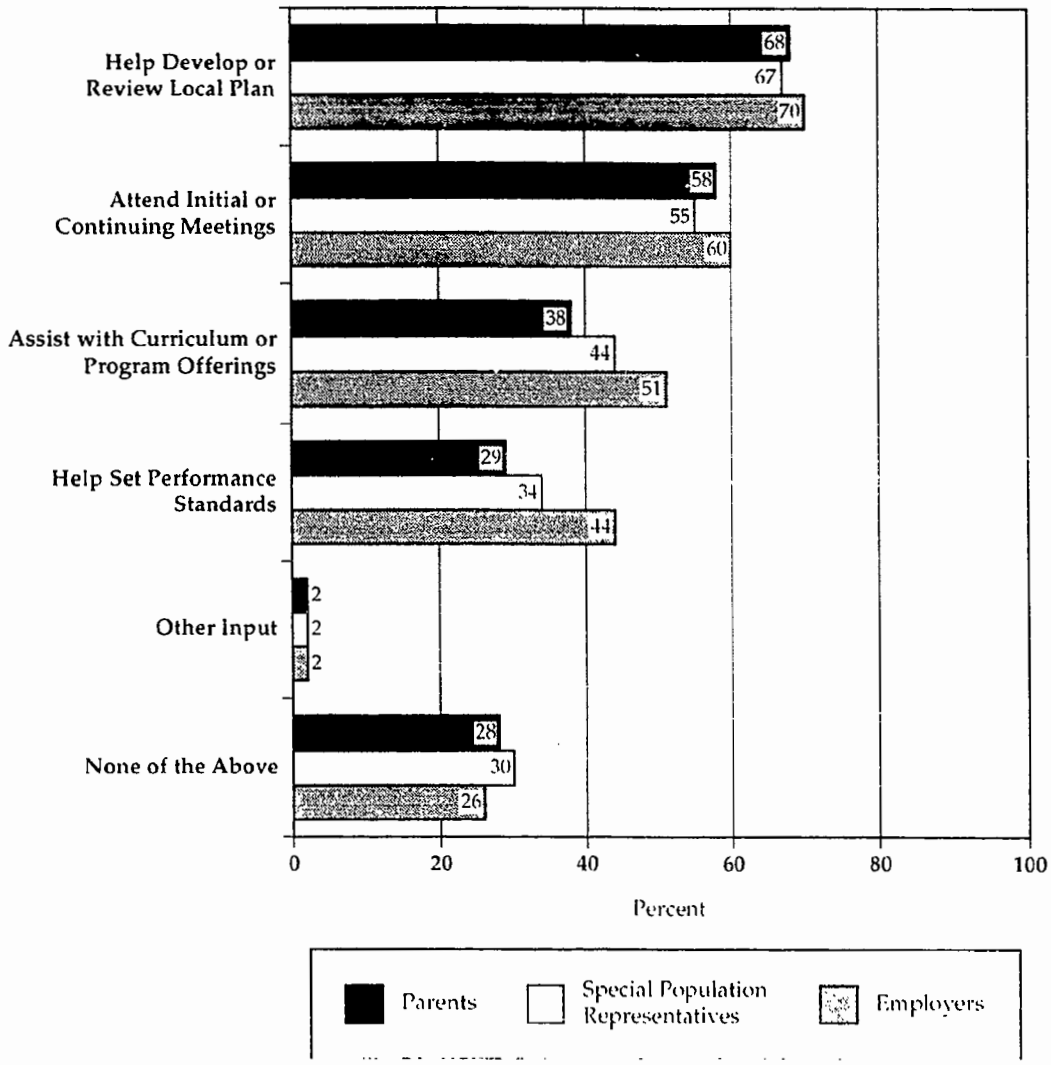
PARTICIPATORY PLANNING

The equal access assurances of Section 118 of the Perkins Act require (among other things) that states establish procedures for parents, students, and other interested parties to participate in state and local decisions that "influence the character of programs under this Act." While this participatory planning requirement does not apply exclusively to those representing special population students, the placement of this provision within Section 118 clearly reflects Congressional intent that participatory planning apply particularly to special population students and their representatives. We therefore discuss participatory planning here.

It is difficult to assess how "participatory" the Perkins planning process is or should be, since it is unclear exactly who should be involved, how often, or in what capacity in order for planning to be truly participatory. However, at the very least, one would expect sites that prepare a local plan for Perkins purposes to meet with members of the community during the development of that plan. According to district administrators, about two-thirds of districts that submitted a local plan did have at least one meeting with parents and/or community members; one-third (36%) did not meet with these individuals. (Data are not available at the postsecondary level.)

The same level of input was found when administrators were asked about more specific activities for different local representatives. As Figure 1.5 shows, parents, employers, and special population representatives were **not** involved in Perkins planning and implementation activities in just under one-third of all districts that submitted a Perkins local plan. In addition, while most districts seek input from at least one of these groups, few seek input from all three. This suggests that districts tend to think more narrowly about "local input" than the Perkins Act

Figure 1.5
Input Into Various Perkins Planning and Implementation Activities by Local Representatives in Districts Preparing Local Plans



Source: Omnibus District Surveys (Versions A, B, and Vocational)

seems to imply — perhaps because of lack of specificity in the Act about requirements for local input. However, it is encouraging that special population representatives are consulted about as often as parents and employers, suggesting that these representatives are considered legitimate stakeholders in Perkins-funded programs.

SERVICES FOR SPECIAL POPULATION STUDENTS[9]

Historically, one of the most important local responsibilities concerning special population students has been the provision of supplemental services to assist these students in entering and succeeding in vocational education programs. The disabled and disadvantaged set-aside funds in the 1984 Perkins Act, for example, were established to provide guidance, counseling, assessment, and "special services" to disabled and disadvantaged students.[10] The 1990 Perkins Act replaced these funds with requirements that localities assure equal access to vocational education programs for special population students through the provision of supplemental services, equipment, and other forms of support necessary to permit these students to participate fully in vocational programs.

In this section, we use Omnibus and Followup survey data and findings from the Community Case Studies to examine the provision of supplemental services for special population students. We review the prevalence and types of services provided, the extent to which Perkins funding increases service provision, and the effect of the elimination of the set-aside funds on service provision.

The Omnibus and Followup surveys included lists of supplemental services for each special population student group (see Appendix Table A-1.6; educationally and economically disadvantaged students were listed separately on the Omnibus survey but combined on the Followup survey). Local administrators were asked whether each service is currently offered, and how each service has changed since 1990–91. We use these data to examine the overall level of services offered to vocational special needs students, and how Perkins Act funding relates to service provision.

Secondary-Level Services for Special Population Students[11]

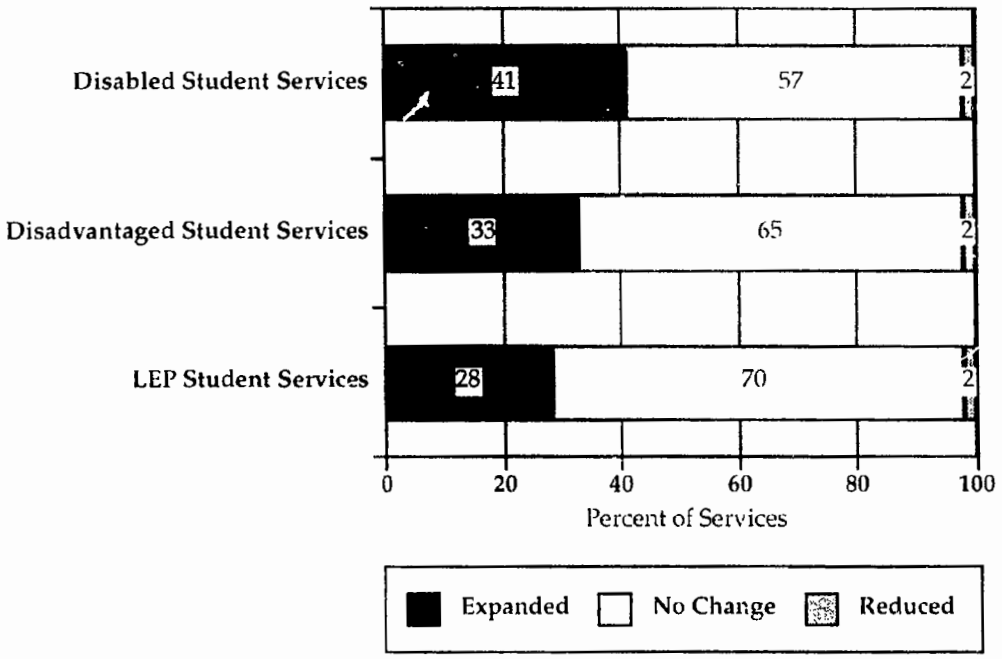
Services Offered. In 1992–93, districts offered a wide range of supplemental services for special population students, especially disabled students. On average, districts offered about 90 percent of the services listed for disabled students, compared to about three-fourths of the services for disadvantaged and LEP students.

For all types of special needs students, the most commonly offered services are guidance and counseling, assessment, tutoring, and job placement. Typically, more than 90 percent of districts offer these services for each type of student. Other more specialized services are more variable in their availability, with more costly services such as the use of paraprofessionals and child care being the least available, typically offered in about 30–60 percent of all districts. The General Accounting Office found similar patterns of service provision in its evaluation of the 1990 Perkins Act.[12]

Changes in Services. We saw in the *Interim Report* that the level of service provision remained unchanged in the majority of districts from 1990–91 to 1991–92. However, when services were changed, they were almost always expanded, so that on average services increased. In 1992–93, the level of service provision continued to expand (see Figure 1.6); nearly twice as many districts reported expansion of services from 1990–91 to 1992–93 as did from 1990–91 to 1991–92.

While services for LEP students did not increase as often as those for disabled or disadvantaged students, services for all three groups expanded significantly from 1990–91 to 1992–93.

Figure 1.6
Changes in District Services for Special Population Students From 1990–91 to 1992–93



Source: District Followup Survey

The services most likely to be expanded were guidance, counseling, and assessment; about half of all districts reported expanding these services for disabled and disadvantaged students. Remedial basic skills instruction, tutoring, and job placement services were also likely to be expanded, especially for disadvantaged and disabled students; about one-third to two-fifths of districts increased these services for each group. Similar trends were found for LEP

students: The most frequently expanded services for these students were guidance, counseling, and assessment (42%), basic skills instruction (32%), and tutors and aides (28%). Localities' emphasis on guidance, counseling, and assessment is consistent with provisions in the Perkins Act.[13] However, in a later section we discuss the limitations of these services.

Effects of the Perkins Act on Service Availability. To determine the extent to which 1990 Perkins Act funds increase the availability of supplemental services for vocational special population students, districts were divided into two groups: those that received Perkins basic grant (Title II-C) funds, and those that did not. The number of services offered in funded and unfunded districts was then compared.

Table 1.3 shows that, although the differences are not large, Perkins-funded districts do offer more services for disabled students, disadvantaged students, and LEP students than do unfunded districts.

While these data are encouraging, they may be misleading. Funded districts tend to be larger than unfunded districts and to have more special needs students, and

Table 1.3
Average Number and Predicted Number of Services Offered by Districts, by District Perkins Funding Status, 1992–93

	Average Number		Predicted Number[a]	
Services For:	Funded in 1992–93	Not funded in 1992–93	Funded in 1992–93	Not funded in 1992–93[b]
Disabled students (9 listed)	8.15	7.42	8.23	7.17
Disadvantaged students (13)	9.56	7.81	9.51	7.31
LEP students (8)	5.78	5.35	5.67	4.65

[a] Predicted values are for districts of average size and with average percentage of disabled, disadvantaged, or LEP students. All differences between funded and unfunded districts in the regression equations were significant at $p<.01$.

[b] The number of unfunded districts is small: 42, 47, and 18 respectively. However, findings were similar with the larger samples in the 1991–92 Omnibus Survey (see *Interim Report*, Table 6.1).

Source: District Followup Survey

may offer more services than unfunded districts because of these characteristics. To sort out these potential causes, we used multiple regression procedures to compare the number of services offered in funded and unfunded districts that are of the same size and have the same concentration of special needs students.

Among districts matched on these characteristics, funded districts offer significantly more services for each special population group than do unfunded districts (see Table 1.3).[14] Funded districts offer an average of 1.06 additional services for disabled students, 2.20 for disadvantaged students, and 1.02 for LEP students. Since this higher level of service provision is not due to differences in district size or student composition, it seems fairly certain that Perkins funding contributes to higher levels of service provision.

However, this increase does not appear to be entirely a result of the **1990** Perkins Act. Many of the disabled and disadvantaged student services that are more available in funded districts are pre-existing services that are being **maintained** with 1990 Perkins Act funds, rather than added. However, other services — particularly LEP student services — do seem to have been **added** with 1990 Perkins funds. (This issue was discussed further in the *Interim Report*.[15])

Elimination of Set-Aside Funds. We saw in the *Interim Report* that districts that received Perkins funds in both 1990–91 and 1991–92 had increased their level of service provision, with increases in funded districts as large or larger than those in districts that had not been funded. This suggests that the elimination of the set-asides did not lead to an initial shift in funding from services to other initiatives. Here, we examine whether this is also true in 1992–93, or whether districts have begun to shift away from service provision now that they have had more time to review Perkins regulations and to consider alternative ways of using these funds.

As in the *Interim Report*, we compare districts funded in both 1990–91 and 1992–93 to those funded in neither year (using Perkins program improvement and disabled and disadvantaged set-aside funds for 1990–91, and local basic grant funds for 1992–93). Since the underlying issue is whether districts that formerly used set-aside funds for supplemental services have shifted their funds to other initiatives, we examine districts funded in both years to see whether their level of service provision has decreased. However, services in Perkins-funded districts can change because of factors other than the Perkins Act (e.g., fluctuations in state or local funding). To control for these other factors, we also examine how service availability has changed in funded districts compared to districts that did not receive Perkins funding in either year.

Table 1.4 shows that districts receiving Perkins funds in both 1990–91 and 1992–93 expanded services for vocational special needs students during that two-year period, and did so to a greater extent than did unfunded districts.[16]

Table 1.4
Average Change and Predicted Change in Special Population Services, 1990–91 to 1992–93, by District Perkins Funding Status[a]

Services For:	Average Change		Predicted Change[b]	
	Funded Both Years	Funded Neither Year	Funded Both Years	Funded Neither Year[c]
Disabled students	3.87	1.60	3.94	1.58
Disadvantaged students	4.62	1.38	4.70	1.53
LEP students	2.27	-0.37	2.34	-0.38

[a] See endnote 16 for explanation of change measure.

[b] Predicted values are for districts of average size and with average percentage of disabled, disadvantaged, or LEP students. All differences between funded and unfunded districts in the regression equations were significant at $p<.01$.

[c] The number of unfunded districts is small: 19, 21, and 8 respectively. However, findings were similar with the larger samples in the 1991–92 Omnibus Survey (see *Interim Report*, Table 6.2).

Source: District Followup Survey

Further, the increase in funded districts is as great or greater than it was in 1991–92, suggesting that funded districts are continuing to focus on expanding services for special population students.

Again, these differences remain even when multiple regression is used to compare funded and unfunded districts with the same number of students and the same proportion of special needs students (see Table 1.4). Thus, the elimination of the set-aside funds does not appear to have resulted in a loss of supplemental services for secondary special population students.

A Final Caveat. Because they are more likely to enroll special population students, Perkins-funded districts are also more likely than others to receive funds from other federal programs, such as ESEA Chapter 1 (for disadvantaged students), IDEA (for disabled students), and ESEA Title VII (for LEP students). In theory, it could be that Perkins-funded districts offer more services than unfunded districts because they receive these other federal funds.

However, we will see below that Funding Case Study and Community Case Study findings support the view that the Perkins Act increases service provision and that the elimination of the set-asides has not reduced the availability of services.

Postsecondary-Level Services for Special Population Students

In general, findings at the postsecondary level are similar to those at the secondary level. Postsecondary institutions offer a wide range of services, with guidance and assessment being most prevalent, and services increased, on average, from 1990–91 to 1992–93. Also, as of 1991–92, Perkins-funded postsecondary institutions offered more services than unfunded institutions, and have increased services more than unfunded institutions.

Services Offered. As at the secondary level, institutions offered many supplemental services, particularly for disabled and disadvantaged students; nearly 90 percent of the listed disabled services were offered in 1992–93, as were about 80 percent of disadvantaged student services, and about 68 percent of LEP student services.

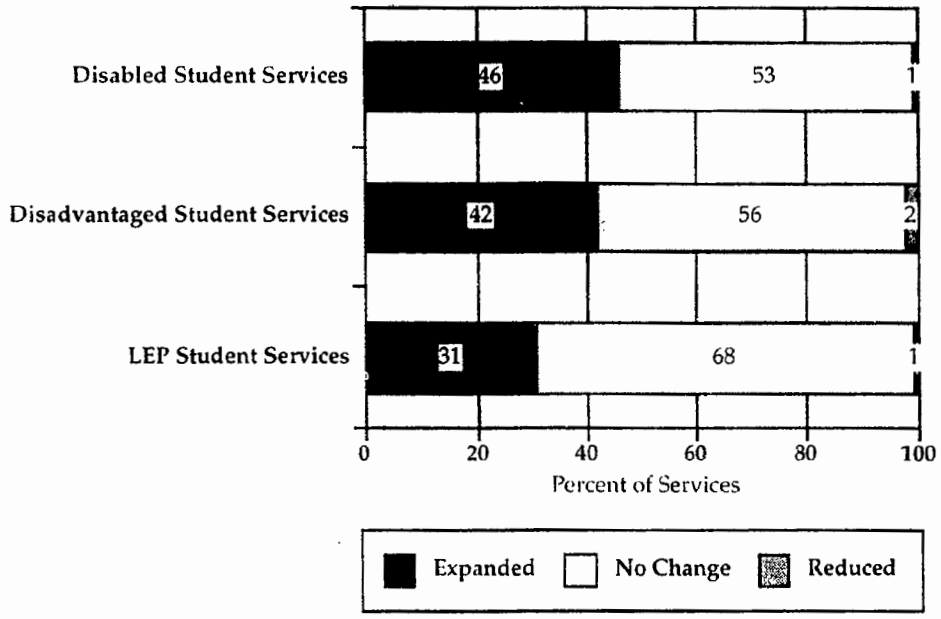
The most commonly offered services for all types of students were again guidance, counseling, and assessment, offered by more than 90 percent of institutions, along with job placement services, remedial instruction, and tutoring for disabled and disadvantaged students. This pattern of service provision is similar to that found by the General Accounting Office in their recent study of postsecondary institutions.[17]

Changes in Services. Although services remained at the same level in the majority of institutions from 1990–91 to 1992–93, services overall expanded during this period (see Figure 1.7). Postsecondary institutions have expanded services for special population students as much as or more than have secondary districts. While 47 percent of services for disabled students were expanded at the postsecondary level, 41 percent were expanded at the secondary level; similar figures for disadvantaged students are 42 percent and 33 percent, and for LEP students, 31 percent and 26 percent.

The services most likely to have been expanded in postsecondary institutions are guidance, counseling and assessment, remedial instruction, and tutoring for disabled and disadvantaged students (expanded in about two-thirds of institutions). For LEP students, guidance, counseling and assessment, and targeted outreach and recruitment were most likely to have been expanded (40–50% of institutions).

The remainder of this section compares the level of service provision across postsecondary institutions that did and did not receive Perkins funds. Since the Postsecondary Institution Followup Survey included too few unfunded

Figure 1.7
Changes in Postsecondary Institution Services for Special Population Students From 1990–91 to 1992–93



Source: Postsecondary Institution Followup Survey

institutions to generate reliable data for 1992–93, we summarize the Omnibus Survey data from 1990–91 and 1991–92, which were also discussed in the *Interim Report*.

Effects of the Perkins Act on Service Availability. As was true in secondary districts, Perkins-funded institutions offer more services for disabled students, disadvantaged students, and LEP students than do unfunded institutions. This finding remains even when differences in institution size and the concentration of special population students are taken into account (see Table 1.5).[18] On average, funded institutions provide about 0.8 more services for disabled and disadvantaged students than do unfunded institutions of comparable size and special population concentration, and 0.7 more services for LEP students.

Elimination of the Set-Aside Funds. Comparing institutions funded in both 1990–91 and 1991–92 to institutions that were not funded in either year reveals that funded institutions increased services as much as or more than unfunded

Table 1.5
Average Number and Predicted Number of Services Offered by Institutions, by Institution Perkins Funding Status, 1991–92

Services for:	Average Number		Predicted Number[a]	
	Funded in 1991–92	Not funded in 1991–92	Funded in 1991–92	Not funded in 1991–92
Disabled students (10 listed)	7.15	6.39	7.18	6.36
Disadvantaged students (12)	7.97	7.32	8.06	7.27
LEP students (9)	4.93	4.39	4.94	4.23

[a] Predicted values are for institutions of average size and with average percentage of disabled, disadvantaged, or LEP students. All differences between funded and unfunded institutions in the regression equations were significant at $p<.01$.

Source: Omnibus Postsecondary Institution Survey

institutions, even when institution size and special population concentration are held constant — implying that the elimination of the set-aside funds did not lead to a reduction in services among postsecondary institutions (see Table 1.6).

While we cannot compare funded and unfunded institutions in 1992–93, we do know that from 1990–91 to 1992–93, funded institutions increased their level of service provision even more than they had from 1990–91 to 1991–92.[19] Thus, unless something very dramatic has happened to service provision in unfunded institutions, it seems safe to assume that eliminating the set-aside funds has not had a detrimental effect on supplemental service provision in postsecondary institutions up to two years after Perkins implementation.

Table 1.6
Average Change and Predicted Change in Special Population Services, 1990–91 to 1991–92, by Institution Perkins Funding Status[a]

Services for:	Average Change		Predicted Change[b]	
	Funded Both Years	Funded Neither Year	Funded Both Years	Funded Neither Year
Disabled students	2.86	2.14	2.81	2.09
Disadvantaged students	3.45	2.27	3.46	2.50
LEP students	1.77	1.16	1.75	1.20

[a] See endnote 16 for explanation of change measure.

[b] Predicted values are for institutions of average size and with average percentage of disabled, disadvantaged, or LEP students. Significance levels are (in order): .10, .02, .26.

Source: Omnibus Postsecondary Institution Survey

OTHER FINDINGS ON LOCAL SERVICES

Chapter 1 in Volume V examines, in a broader context, the allocation and uses of Perkins funds, based on Omnibus Survey reports of funds use and a set of Funding Case Studies. That chapter shows that providing services for special population students is a common use of Perkins funds, particularly in districts with higher special population enrollments. For example, among individually funded districts (rather than those in a consortium), 19 percent of districts with low concentrations of special population students used Perkins funds to adapt equipment for disabled students, compared to 40 percent of districts with high concentrations of these students. The Funding Case Studies also suggest that large urban districts offer a large, extensive array of supplemental services.

Use of Perkins Funds

The Community Case Studies found three main uses of Perkins funds: staff to provide counseling, assessment, tutoring, and other assistance for special population students; the purchase of vocational equipment (primarily computers); and curriculum improvement efforts (primarily related to the integration of academic and vocational education). Of these, the use of funds for support staff predominated at most sites.

The range of Perkins-funded supplemental services found at case study sites was often quite broad, typically including some combination of assessment staff/centers, job counselors, teacher aides and other paraprofessionals, tutors, and (at the postsecondary level) remedial education staff/centers. It would be an exaggeration to say that all students' needs were met through Perkins-funded services, and we have questions about the value of some of these services (see discussion on "Guidance, Counseling, and Assessment" below). However, the overall picture suggests that substantial attention is being given to special population students. The case study researchers concluded that "the majority of site personnel were making good-faith efforts in beleaguered situations to provide the best services they could to the students most in need of them."

Elimination of Set-Aside Funds

The Community Case Studies support the Omnibus Survey finding that the elimination of the set-asides has not resulted in a loss of services to special population students. Instead, the case study researchers concluded that "On the whole, the philosophy of special services for special population students has become part of district or institutional philosophy." At virtually every site, vocational administrators reported that the elimination of the set-asides had either no effect or a positive effect on their vocational programs. Positive effects apparently resulted from increased flexibility in funds use. At a large urban district, for example,

> The head administrator stated that schools have been serving special populations more effectively since the elimination of the set-asides. Specifically, he indicated that services to special populations are now more integrated in their approach to providing vocational education than they were previously.

At a rural postsecondary institution:

> Although the current grant provides [less money than received under the set-asides] the director believed that the current monies are being spent more wisely. Instead of providing general assessment services which are already offered by the [larger institution of which they are a part], current Perkins funds are targeted on the programs and students "that need it the most."

The most common problem in using Perkins funds to serve special population students, in the view of local administrators at case study sites, arises not from the elimination of the set-asides, but from restrictions placed on funds use by state or regional agencies. For example, in an eastern state it was reported that:

> Until this year (1991–92), Perkins funds have been . . . used for the pre-occupational programs that take place at the special populations center a half-hour's drive from the main [community college] campus; this depressed area has the greatest concentration of needy students. This year the state determined that Perkins funds [should] not be . . . used for the center's pre-occupational programs. Nor [could they] . . . be used for main-campus developmental programs. According to a system-wide federal programs administrator, "we could be forced to develop bogus remedial courses within [vocational] departments to meet these requirements."

The case study researchers concluded:

> The general finding within these communities is that the services being provided with the basic Perkins funds . . . have not changed in nature or in the students targeted. In a number of instances they are being more focused on needy students, either within fewer programs, or within fewer sites. In this respect, the mechanisms of Perkins II designed to focus funds appear to be working, while the loosening of set-aside-based requirements to serve needy populations has not acted to diffuse these services to less-needy students in the communities visited.[20]

PERCEIVED EFFECTS OF THE PERKINS ACT

Finally, another way to assess state and local efforts concerning special population students is to evaluate the effects of the 1990 Perkins Act on these students. The Followup Survey asked district and postsecondary institution administrators about their perceptions of the effects of the Act on special population students' access to and participation in vocational education, and on the quality of vocational instruction these students receive.

These data suggest that the Perkins Act is meeting its goal in most districts and institutions. For example, 74 percent of Perkins-funded district administrators and 91 percent of Perkins-funded postsecondary institution administrators report that the Perkins Act has "promoted the access and participation of special population students in high-quality vocational education." (Virtually all of the other administrators reported no effect.)

Asked about participation and program quality individually, administrators report increases in both as a result of the Perkins Act, for each special population group (see Table 1.7). The relatively large effects for disadvantaged students at the postsecondary level most likely result from the fact that many postsecondary institutions use their Perkins funds to support learning and/or counseling

Table 1.7
Percent of Perkins-Funded District and Postsecondary Institution Administrators Reporting That the 1990 Perkins Act Had a Positive Effect on Each Condition[a]

	Districts	Postsecondary Institutions
Vocational education participation of:		
Disabled students	62	71
Disadvantaged students	69	86
LEP students	44	49
Quality of vocational curriculum and instruction in programs enrolling:		
Disabled students	66	68
Disadvantaged students	72	77
LEP students	45	49
Participation or quality for:		
Disabled students	75	81
Disadvantaged students	79	93
LEP students	53	59

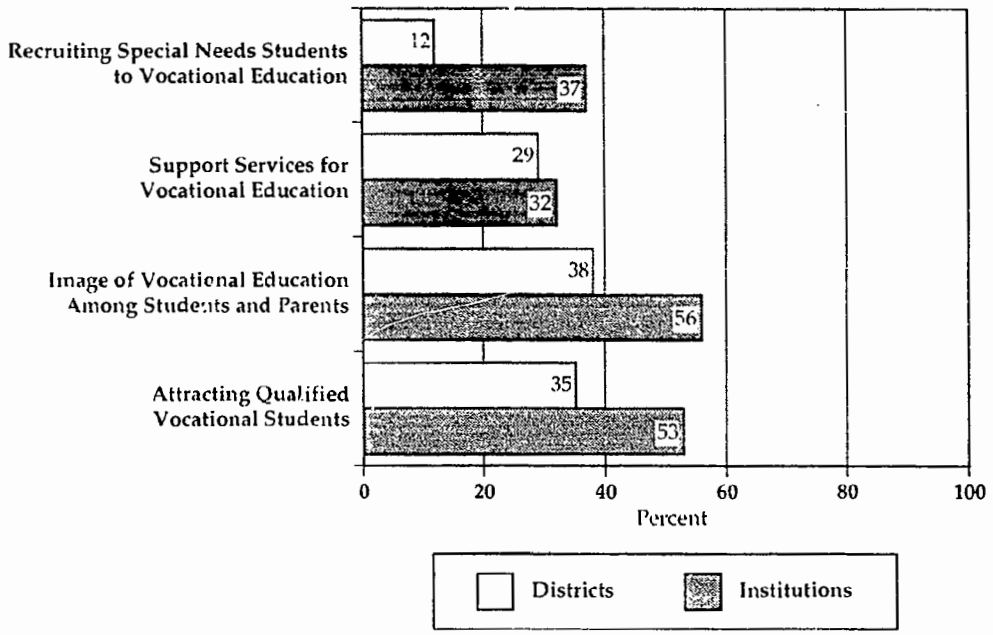
[a] Virtually all other administrators reported no effects from Perkins; fewer than 2% reported negative effects.

Sources: District and Postsecondary Institution Followup Surveys

centers, which primarily serve the educationally disadvantaged. However, the smaller effects for LEP students at both levels suggests greater problems in meeting the needs of these students.

In spite of these positive effects, there are still problems with vocational program access and quality in general (see Figure 1.8). For example, while only about one in ten secondary districts has a significant problem recruiting special needs students to vocational education, almost one-third have a significant problem providing support services for these students. Over one-third of districts also report significant problems related to vocational education quality (the image of programs among students and parents, and the ability to attract qualified students). The greater difficulty in recruiting qualified students than in recruiting special needs students suggests that program quality is a more common problem than student access.

Figure 1.8
Percent of District and Postsecondary Institution Administrators Rating Each Issue as Moderate-to-Severe Problem



Source: District and Postsecondary Institution Followup Surveys

Recruitment and image problems are even more prevalent at the postsecondary level, where one-third of institutions report significant problems in recruiting special needs students and one-half report significant problems in recruiting qualified students and with the image of their programs. It is not surprising that the recruitment of special population students is a greater problem at the postsecondary level than at the secondary level, since these students are less likely than others to enroll in postsecondary education. But we did not expect postsecondary administrators to report greater problems than secondary administrators with the image of their programs or their ability to attract qualified students. It is not clear what motivates this more negative perception, especially given the relatively positive enrollment trends in postsecondary education (see Chapter 2 in Volume II).

However, both secondary and postsecondary administrators are consistent in reporting greater problems with vocational quality indicators than with access indicators. Perkins funding may be helping resolve both problems in some

districts, but these data suggest that continued improvements are needed in both areas — especially to improve the image and appeal of vocational programs to students in general.

ADEQUACY OF SERVICES

It is difficult to assess the extent to which special population students are being provided with the full range of services they need to enter and succeed in vocational programs. This difficulty arises from problems in determining what services a student needs, how effective different services are, and exactly what services schools are responsible for providing. (These problems are less severe in the case of disabled students, for whom IEPs typically list student needs and school responsibilities.) Research data on this issue come from a number of different sources, and the findings are not entirely consistent.

First, we saw above that almost one-third of secondary districts and postsecondary institutions report that they have problems meeting vocational students' needs for services. Chapter 1 in Volume V also shows that about 40 percent of districts and 14 percent of postsecondary institutions limit service provision because of a lack of funds to cover costs. From these data, it seems that there is some shortage of services at the secondary level. However, in its study of the Perkins Act, the General Accounting Office found that secondary schools reported they provided services as needed, with no difficulties in any particular areas. Postsecondary institutions, on the other hand, reported difficulties meeting the need for remedial courses, tutors, day care, and language services for LEP students; disabled students appeared to be well-served.

The last National Assessment reported that in some Perkins-funded districts, LEP students were not being provided with needed services. The current Assessment shows a marked increase in services for these students. However, given the rapid growth in this population, we expect that services may still be inadequate in at least some locations; Chapter 2 in Volume II noted that there is evidence of such inadequacies at the postsecondary level.

Moreover, as academic requirements increase, so does the need for remedial services. The current trend is for schools to raise standards without revising their instructional practices to improve students' ability to reach the standards. Under these conditions, an increasing number of students need additional instructional assistance.

The following tentative conclusion can be drawn from these limited and sometimes conflicting data. Disabled students are fairly well served within vocational education, primarily because of their protection under other federal legislation, but also because of the assurances and additional funding (historically) provided for them in the Perkins Act. Additional services for LEP students are needed at the postsecondary level, and probably the secondary

level, especially in areas with rapidly growing immigrant populations. Additional remedial courses, tutors, and day care are needed at the postsecondary level. Additional assistance will be needed in helping both secondary and postsecondary educationally disadvantaged students develop their cognitive skills and meet new, higher standards, especially if the quality of their classes does not improve.

SPECIAL POPULATION SERVICES VERSUS PROGRAM IMPROVEMENT

Debate and tension over the relative emphasis to be accorded to serving special population students (improving access) and to improving vocational programs has long existed, both in vocational education and within federal vocational education legislation leading up to the 1990 Perkins Act. The new Act attempts to reduce this tension by emphasizing program improvement (essentially vocational education reform) in sites or programs that have high concentrations of special population students. However, vocational educators at some sites that focus Perkins funds on serving special population students think that too much emphasis is still being placed on this goal. At a very well-regarded AVS, for example, the case study researchers found that although the school's increased spending on disabled vocational students was viewed favorably,

> a caution was expressed that, in the long run, administrators do not want vocational education to be the place for special education students at the expense of providing rigorous training to other students wanting to master a vocation. They believe a significant emphasis on special needs students here hinders or cuts into a primary mission of vocational education — to prepare students for highly technical, competitive employment.

Similar concerns were reported in a state that has long emphasized using Perkins funds on special population students:

> Some teachers, especially vocational teachers, are not as enthusiastic [about the emphasis on serving special population students]. They indicated that this focus conflicts with other Department of Education emphases on "building a highly competitive work force for the twenty-first century." They believe that this goal suggests spending at least some vocational dollars on the most creative and innovative education strategies, whether or not such programs serve special needs students.

As long as the Perkins Act remains one of the main sources (if not the main source) of federal support for secondary and postsecondary supplemental services, the tension between services and program improvement is likely to continue. On the other hand, because the Act has focused on both goals for so

long, it would be difficult to shift the focus exclusively to one goal at this point. Keeping the Act as it is, with both uses encouraged, may be the least difficult solution at the federal level, but at the local level it dilutes the effects of both approaches.

In particular, the new Perkins Act goal of **reforming** vocational programs (rather than merely improving them in traditional ways) is more costly and time-consuming than many other efforts, but also has the greatest potential for improving the education of the students targeted by the Perkins Act. Meeting this goal requires concentrated effort, and is likely to be difficult to achieve in schools that focus their Perkins funds on supplemental services.

Issues in Serving Special Population Students

Few would argue with the federal goal of improving educational access and opportunities for students with special needs. This has always been the primary mission of the U.S. Department of Education, and is the explicit goal of most major federal education legislation (e.g., ESEA, IDEA, federal financial aid programs). But the focus on this goal within the context of the Perkins Act raises two important issues: (1) To what degree should special population students be served primarily in vocational education programs, and (2) to what degree are the opportunities for special population students in vocational education improved by supplemental services rather than vocational education reform and program improvement efforts? We discuss these issues in the context of two types of local activities — active student recruitment and guidance, counseling, and assessment.

Active Recruitment. The 1990 Perkins Act requires states to provide assurances that local districts actively recruit special population students to vocational education.[21] However, active recruiting may also result in the over-inclusion of special population students — that is, in the inappropriate placement of these students in vocational programs. (See discussion of this issue in Volume II, Chapter 1.) In the face of declining enrollments, some programs are recruiting special population students to fill "empty seats." Moreover, the restriction of Perkins-funded services to vocational programs may feed into this recruitment effort: To the extent that services are available only in Perkins-funded vocational programs, there may be nowhere else for students with special needs to go.

The case studies provide numerous examples of active recruiting efforts, often linked to the availability of supplemental services within vocational programs. Consider this series of descriptions from a district in an eastern state:

> Because the area vocational school was intent on offsetting declining enrollments, their Perkins money was used to provide services to the increased number of special population students . . .

> [One AVS teacher said that] "some [feeder schools] used to send us their bad apples, but we've turned around — now we want the bad kids."
>
> There was also the case of a child whose mother was told her daughter had a learning disability [and] that the high school could not provide any assistance. That student is now enrolled at the vocational school.

We do not know how prevalent such situations are, but they are encountered frequently enough to raise concern that the Perkins emphasis on recruitment and the concentration of services in vocational programs, as interpreted and implemented at the local level, does not necessarily work in the best interests of special population students.

Guidance, Counseling, and Assessment. We have seen that guidance, counseling, and assessment are the most frequently offered services for vocational special needs students. They are also one of the more frequent uses of Perkins Act funds. For example, Perkins funds are spent on "career counseling or guidance activities" in 68 percent of secondary districts and 81 percent of postsecondary institutions. As previously mentioned, this focus on guidance and assessment may come from the emphasis placed on these services in the 1984 and 1990 Perkins Acts. (Presumably in response to this emphasis, at least one state requires that localities spend a minimum percentage of their Perkins funds on counseling services.) However, this emphasis may not serve the best interests of vocational students, at least in secondary schools as they are currently structured.

It is difficult to assess the value of guidance services for vocational students, since these services can vary widely in quality depending on the number of counselors available, the counselor's training to deal with vocational special needs students, and the specific guidance and assessment programs used. However, the evidence suggests that these services are usually not available to vocational students. A recent review on this topic conducted for the National Assessment found that guidance counselors focus predominantly on college-bound students (specifically, four-year college-bound students) as well as on special education students and students with severe school or personal problems; vocational students receive relatively little assistance or time from guidance counselors.[22]

The NELS data show that this pattern is true for high school seniors. For example, among students seeking a job after graduation, 75 percent of college-bound students reported that guidance counselors helped them select their jobs, compared to only 7 percent of vocational students (and 2 percent of general track students). Vocational students planning to continue their education beyond high school get more attention, but still not as much as college-bound students. For example, about one-third of vocational students receive assistance from their

school in filling out postsecondary school applications, compared to half of college-bound students.

In addition, guidance services specifically designed to improve students' job prospects appear to be limited in their effectiveness. A recent review of school-to-work programs discussed one study that evaluated a set of programs designed to serve 16–21 year-olds, mostly dropouts, and to emphasize career counseling and job placement.[23] These programs were found to produce positive short-term benefits (higher pay, higher employment levels), but the benefits wore off after two years. The review noted:

> These findings indicate that such programs do seem to place youth in private sector jobs, allowing them to experience earnings gains, but also that, eventually, comparison group members will get jobs on their own and the advantages enjoyed by the participants will disappear. The researchers concluded by speculating that career counseling and job placement programs are only limited steps in a series of necessary interventions.[24]

There are many reasons why vocational students may be shortchanged by the guidance system.[25] Vocational students may simply seek assistance from counselors less often than other students. But counselors themselves are relatively ill-equipped for dealing with vocational students. Counselor training programs typically do not give priority to working with vocational students, and while counselors have good tools and methods for predicting student success in college, they are not similarly equipped to predict job success. Finally, parents, teachers, school administrators, and even students are most often focused on college preparation and attendance. Preparing students for college is the top priority in most secondary schools, and their guidance departments are expected to share this priority.

One apparent solution to this problem would be to improve vocational guidance services, and the most effective way to do this would be to provide each school district (or high school) with a vocational counselor. (Current counselors are simply overwhelmed with student cases and college-prep responsibilities.) However, this would be an extraordinarily expensive undertaking. For the 11,000 public secondary districts receiving Perkins funds, a rough estimate (based on a fully loaded average salary of $50,000) places the cost of providing a vocational counselor in every district at over $500 million.[26] While vocational students would probably benefit from the services of a vocational guidance counselor, we believe that the limited federal funds available for vocational education are better spent on direct vocational program improvement efforts, as well as on efforts to improve the academic education vocational students receive.

For example, many counseling advocates point to the fact that students know very little of job requirements. But we question the logic of providing counselors

to "tell" students what they will need to know. College-bound students are not told what they need to know to succeed in college, but rather what courses they need to take (and what grades to make) in high school. A similar approach would seem more reasonable for vocational students. This approach would rely less on individual counseling and more on schools' structuring their curricula so that vocational students, like their "college-prep" peers, follow an established (and comprehensive) program of study. (The development of skill standards would help in this regard, but it is not necessary to wait for these.)

Student needs assessment is a more amorphous area. From our school visits, it seems clear that diagnostic student assessment is expanding fairly rapidly, and this may be where most Perkins money for "guidance, counseling and assessment" is going. However, we do not know to what degree this formal approach is more accurate or effective than more traditional, informal approaches (such as teacher recommendations). Nor does assessment improve the vocational courses and programs available to students. On the other hand, assessment procedures do have the advantage of being a more (legally) defensible method of placing students, and are likely to be favored by schools for that reason.

At the postsecondary (community college) level, our impression is that vocational counseling and guidance services may be more effective, for a number of reasons. First, the institution typically provides these services through a separate assessment, learning, and/or counseling center, which is dedicated solely to these functions, and does not also serve the myriad functions placed on high school guidance departments. Second, the exclusive focus on college preparation that pervades high schools is not as strong in community colleges (although it is not completely absent). Third, at this level both students' and counselors' schedules tend to be more flexible, providing more opportunity for using the centers' services. Finally, although these centers often serve guidance functions, their main use is often tutoring and remedial instruction (with their concomitant assessment prerequisites), rather than traditional guidance and counseling. Thus, even at the postsecondary level, guidance services may not be as pervasive as they seem.

In general, our findings support the data and conclusions reached by the last National Assessment concerning services for students. Those researchers noted the following:

> We found that most services were provided to academically disadvantaged students. Services included counseling — especially assessment — and academic remediation, with related equipment purchases. Services were provided to students who qualified under the definitions in the Act, but few were linked to increasing the access of those students to high-quality vocational education or otherwise upgrading their offerings. Most services were provided

without reference to changing the vocational program in which the student was enrolled.

Testing and other assessment devices may be good diagnostic and motivational tools, but it has proven difficult to fit the assessments conducted with Perkins Act funds into an overall "access improvement" plan for a student. Although an assessment could be an important first step in finding the most challenging vocational program, in many schools it is an isolated event of little consequence to vocational placement. In many sites, academically (or economically) disadvantaged students already enrolled in vocational education are provided with a battery of interest and ability tests and other measures designed to identify the training and jobs for which they are suited. Yet in interviews with counselors and administrators, field staff found that, in many cases, the assessment does not play much role in placing a student in a particular vocational program.

Counselors and teachers were sometimes unclear about what to do with the results of vocational interest or ability tests. In many sites, the persons conducting the assessments spoke of the need to provide training to counselors and teachers on ways to use the information, but the problem appears to be much more basic. The program reform goals of the Perkins Act have not been translated into practice through the assessment process.[27]

Based on this evidence, we feel that the Perkins Act's focus on guidance, counseling, and assessment services, particularly at the secondary level, is misplaced. With the exception of vocational counselors (who typically are found only in vocational schools), counselors devote little time or attention to vocational students, and assessment services may serve schools' needs more than students'. Neither counseling nor assessment improves the quality of vocational courses available to students.

Given the Perkins Act's focus on targeting highly disadvantaged schools (which we support), it is questionable whether it makes sense to devote limited federal resources within these schools to guidance, counseling, and assessment, rather than to education reform and program improvement activities that directly offer students better educational and job training opportunities. We think that the quality of instruction available to special needs students should be the primary focus of federal spending on vocational education, and that ancillary services that do not directly improve instructional quality, while potentially useful, are a less justifiable use of federal funds.

CONCLUSION

At both secondary and postsecondary levels, equal access seems to be a major focus of states' Perkins reform efforts. States are as active in this area as they are in most other Perkins-related initiatives, suggesting that equal access is part of states' general Perkins-reform agendas.

Compliance with state equal access requirements and assurances appears to be high overall, although it is not universal; there is room for improvement. Additionally, although states report that their responsibilities concerning special populations have increased, these increases tend to be related to compliance with state participatory planning requirements and data collection responsibilities. States are less likely to assist localities in interpreting and implementing the equal access assurances. Although state assistance to localities — on equal access as well as other Perkins implementation issues — was limited in the first year of implementation, it improved markedly in the second year. We expect that initial cuts in state Perkins allotments, together with time needed to clarify and develop appropriate responses to the new Act, made it difficult for states to provide much assistance to localities in the initial year of implementation. Even in the second year, however, state assistance is not as widespread or comprehensive as it could be.

State leadership and assistance is one of the most effective ways to ensure that localities implement the Perkins Act as intended. The Perkins Act should ensure that states have the financial and technical resources necessary to play this leadership role. To ensure that states assume this role as intended, the U.S. Department of Education must also provide stronger assistance to and oversight of state agencies.

State compliance rates are highest for activities that are clearly mandated in the 1990 Perkins Act (e.g., involvement of state special population representatives in review of local plans), but are less high for activities that are less clearly or specifically mandated (e.g., involvement of state representatives in other Perkins activities, participatory planning requirements). **To ensure that state and local activities deemed most essential to ensuring equal access and participatory planning are implemented as intended, the Perkins Act must be as explicit as possible about Congressional intent. For example, a clearer definition of participatory planning is needed to ensure better compliance with this provision.**

State efforts concerning equal access and special population students are also slightly more common at the secondary than at the postsecondary level, but this may be due more to the larger influence of state secondary agencies than to greater emphasis on equal access. **The Perkins Act needs to recognize and acknowledge the differences in organizational structure and level of responsibilities between the secondary and postsecondary vocational**

education systems. While states can be effective motivators of change at both levels, their role should be greater at the secondary level (where vocational education reform is also more critical, cf. Volume III).

Adjustments to states' (developing) systems of performance standards and measures to account for special population students are not widespread, and are less common than states themselves had anticipated. Exactly why this is true is unclear, but it raises the possibility of inappropriate uses of states' accountability systems. If sites that serve high concentrations of vocational special needs students believe that they will not be evaluated fairly, they may engage in undesirable practices such as "creaming"; states may also decide they cannot use the assessment system to evaluate local programs. **If the Perkins Act is to continue encouraging the development and use of performance measurement systems, states must be provided more technical assistance on the proper use of these systems in assessing localities that serve different types of students.**

At the local level, the evidence strongly suggests that Perkins funding improves service provision for vocational special needs students, and that this effect has not been diminished by the removal of the disabled and disadvantaged student set-asides. While localities with and without Perkins funds tend to offer a wide range of supplemental services for vocational special population students, localities with Perkins funds offer more services than those without funds. Funded localities have also been increasing these services at rates equal to or greater than those in unfunded localities, in spite of the elimination of funds set aside for supplemental student services. Perkins-funded sites also report that services for special population students are one of their main uses of Perkins funds, and that the elimination of the set-asides has not changed this pattern of funds use. Finally, local administrators report that the Perkins Act has had a positive effect on special population students' access to and participation in vocational education, and on the quality of education available to these students.

It is still possible that, over time, Perkins funds will be shifted to other uses. However, we expect that this will happen only if the impetus to do so is provided by the states or by the federal government. In general, localities seem to be reluctant to remove Perkins-funded student services. In the case studies, this seemed to happen only when a larger outside agent — such as the state or a regional consortium — placed limits on Perkins funds, and then it was not done gladly. Partly this reluctance comes from compliance concerns and from the fact that teachers, parents, and students quickly come to expect and depend on available supplemental services; an aversion to making staff cuts (among Perkins-funded support staff) might also be a factor. In any case, it seems unlikely that districts will shift funds from any pre-existing Perkins service that enjoys a reasonable level of support within schools, unless they have a mandate to do so.

Even with Perkins funding, many schools continue to need additional funds for supplemental services. Services for LEP students are in high demand, and additional services designed to improve the cognitive skills of educationally disadvantaged students and help them meet standards will also be needed, especially if the quality of programs is not improved. Disabled students seem to be well served through IDEA.

The Perkins Act appears to be one of the primary sources of federal funds for disadvantaged and LEP student services in secondary schools. But the Act emphasizes guidance, counseling, and assessment rather than learning-related services. This focus seems to do little to improve student learning or the nature of instruction vocational students receive. We believe that services that **directly improve learning** — such as tutoring and bilingual or ESL instruction — are the most important and relevant services for ensuring that special population students succeed in vocational programs and meet the performance standards currently being developed for these programs. These services focus directly on increasing students' cognitive skill development, their likelihood of completing programs, and their employability. A focus on direct instructional services is also consistent with the model of vocational education suggested in Volume I of this Report, which emphasizes vocational students' cognitive skill development in particular, and learning outcomes in general.

However, we have some concerns about the use of federal vocational education funds to support supplemental student services in general. Our concerns focus on two basic issues.

First, we question the appropriateness of providing funds through the Perkins Act for services that students should have, regardless of their education program. In effect, the Congress is directing services that should be equally available to all students to one specific group of students — those enrolled in vocational programs. Although this focus may have been necessary to alleviate past discriminatory practices, today this same effort seems to be contributing to a new form of discrimination — to the view that special population students "belong" in vocational education (and that other students do not) simply because of their status as special needs students.

Using services to encourage the recruitment of special population students (as the Perkins Act does, intentionally or not) assumes that special population students, as a group, should be enrolled in vocational programs. However, student placements into vocational education should be done on an individual student basis, even for those student groups for which vocational education has known benefits (disabled students, potential dropouts). Among economically disadvantaged and LEP students, the rationale for encouraging enrollment in vocational education (beyond equal access) is even less clear, as there are no a priori or empirical reasons to expect vocational education to be "better" for these students. (On the other hand, there are good reasons for targeting funds to

areas that serve special population students, as this is the most effective way to reach these students.) Given these factors, the rationale for funding supplemental services only for vocational students is unclear.

Second, we also question, as did the last National Assessment, the value of guidance, counseling, and assessment services provided to special population students under the Perkins Act. Current Perkins funds for special population students are often used to hire counselors, assessment staff, and other ancillary personnel. While these services are no doubt useful, the hiring of ancillary personnel may be adopted as a simple, fast, and safe (in terms of auditing concerns) way for schools to serve special population students and meet the equal access assurances of the Perkins Act (much as buying equipment is the simplest way to "improve" a vocational program).

We believe that schools should use Perkins funds primarily for a more difficult but potentially more rewarding endeavor — to reform their vocational education programs, providing only those services that are necessary to help students succeed in more rigorous, relevant, and challenging workforce preparation programs. In our opinion, the curriculum reforms encouraged by the Perkins Act (and in this Report) — if more systematically and conscientiously implemented — are more likely to improve the education that special population students receive than is the hiring of ancillary personnel to provide non-instructional services.

In short, it is our impression that the most promising and valuable means of improving special population students' access to quality vocational education is not primarily through increased supplemental services, but through curricular reform and improved instructional quality — challenging, relevant vocational programs consistent with the model outlined in Volume I. The Perkins Act should support equal access to these high-quality programs by targeting funds on sites with high concentrations of special population students, encouraging sites to use funds for reform efforts, and limiting the funding of supplemental services to those that directly contribute to student learning (tutoring, bilingual or ESL instruction, modification of equipment, or instruction for disabled students).

These conclusions lead to the following recommendations: **The Congress should reconsider the rationale for providing funds for supplemental services within federal vocational education legislation. To the extent that services are funded, they should be limited to direct instructional services that maximize the learning opportunities of non-college-bound students. To most effectively improve the access of special population students to *high-quality* vocational education, the Perkins Act should give even greater emphasis to reforming vocational programs in districts and schools that serve these students (while maintaining equal access assurances).**

ENDNOTES

1 The 1992 data reported in this chapter differ slightly from those in Chapter 6 of the *National Assessment of Vocational Education: Interim Report to Congress* (1994) ,U.S. Department of Education. The chapter in the *Interim Report* included territories as well as the 50 states and the District of Columbia; this chapter excludes territories (except where otherwise noted).

2 Sections 111 and 115.

3 Section 115.

4 Sections 115, 116, 117.

5 Section 118.

6 Section 118.

7 Section 115 (b) (3).

8 The full set of data on state assistance with various Perkins-related activities was reported in Figure 6.4 in the *Interim Report*.

9 The analyses in this section include only those localities that enroll the students in question in their vocational education programs. For example, districts that do not enroll any LEP students in vocational education were excluded from all analyses examining services for LEP students.

10 Section 204(c) in the 1984 Perkins Act.

11 The data for this section are for regular districts only.

12 General Accounting Office (1993c), *Vocational Education: Status in School Year 1990–91 and Early Signs of Change at the Secondary Level*.

13 Section 113 of the 1990 Perkins Act requires assurances that the state "provide leadership, supervision, and resources for comprehensive career guidance, vocational counseling, and placement programs." Similarly, Section 118 requires that localities provide special needs students with guidance, transitional counseling, and assessment services. Guidance services are further emphasized in section 235, which explicitly lists guidance and counseling as a permissible use of Perkins funds, and in Section 240, which requires further assurances that counseling will be used to encourage students to take "coherent sequences of courses" and to assist special needs students. Finally, in the 1984 Perkins Act, guidance, counseling, and assessment were mandated services for disabled, disadvantaged, and LEP students.

14 Disadvantaged students were defined as those grade 9–12 students who are eligible for the federal lunch program. Disabled and LEP students include grade 9–12 students classified as such by their district.

15 See *Interim Report*, p. 177.

16 To measure change in the level of service provision, each service was coded "-1" if it had been reduced or eliminated, "+1" if it had been expanded, and "0" if it remained

unchanged. Thus, a positive average across services implies a net expansion of services; a negative average implies a net reduction; and an average of zero implies that service expansions and reductions were balanced, or equally likely.

17 General Accounting Office (1993d), *Vocational Education: Status in 2-Year Colleges in 1990–91 and Early Signs of Change.*

18 Disadvantaged students were defined as students receiving Pell Grants and/or Bureau of Indian Affairs assistance; disabled and LEP students were defined as such by their institutions.

19 The average change for funded institutions from 1990–91 to 1992–93 is 5.62 for disabled students services; 4.78 for disadvantaged student services; and 2.88 for LEP student services. From 1990–91 to 1991–92, the average change was 2.81, 3.46, and 1.75, respectively.

20 Milne, A., Martindale, M., & Michie, J. (1993), *Vocational Education in Communities*, p. 58, Westat.

21 Sections 118 (b) and 118 (c).

22 Walz, G.R. (1994), *Vocational Guidance, Counseling and Assessment in Vocational Education: A Descriptive and Evaluative Literature Review*, draft report prepared for the National Assessment of Vocational Education, University of North Carolina.

23 Lah, D., et al. (1983), *Longer-Term Impacts of Pre-Employment Services on the Employment and Earnings of Disadvantaged Youth: A Project of the Private Sector Initiatives Demonstration of Public/Private Ventures*. Cited in Stern, D., et al. (1994), *Research on School-to-Work Transition Programs in the United States*, National Center for Research in Vocational Education.

24 Stern et al., (1994).

25 These factors are discussed in greater detail in Walz (1994).

26 Our estimate of a fully loaded average salary of $50,000 is conservative. Data from the American Counseling Association show that, in 1992-93, the median annual salary for full-time school counselors was about $30,000, and the mean annual salary was over $40,000.

27 Muraskin, L.D. (1989). *National Assessment of Education Final Report, Vol. II, Implementation of the Carl D. Perkins Act*, pp. 126–128, U.S. Department of Education.

CHAPTER 2

PROGRAMS FOR SEX EQUITY AND SINGLE PARENTS, SINGLE PREGNANT WOMEN, AND DISPLACED HOMEMAKERS

INTRODUCTION

In the 1970s, the Congress recognized the expanding role of women in the workforce. Congressional reports accompanying the 1976 Amendments to the Vocational Education Act noted that most women will work during at least some portion of their adult lives; that women constitute a large and growing part of the labor force; that most women work out of necessity; and that in spite of all this, working women are concentrated in a few lower paying occupational areas.[1] Further, many of the women entering the workforce out of economic necessity have little formal education and few job skills.[2]

To remedy this situation, the Congress included provisions in the 1976 Amendments to eliminate sex bias and sex stereotyping in vocational education, and (later) to serve displaced homemakers. Recipients' response to these provisions was initially very limited, prompting the Congress to strengthen and expand the provisions in subsequent legislation.[3]

Today, the 1990 Perkins Act mandates that each state set aside 10.5 percent of Perkins basic grant funds for two types of sex equity programs — programs to eliminate sex bias in vocational education, and programs for single parents, single pregnant women, and displaced homemakers. In addition, each state must use at least $60,000 of its Perkins state administration monies to fund a state position for a vocational sex equity administrator. For the first time, the 1990 Act also requires that all sex equity funds be allocated within states through competitive grants, and includes single pregnant women in the pool of eligible recipients. These 10.5 percent reserve funds and programs are discussed in this chapter.

In Chapters 1 and 2 of Volume II, we examined one aspect of sex bias in vocational education — the enrollments of men and women in programs nontraditional for their gender. Here, we focus on funding and services for programs to eliminate sex bias (hereafter referred to as sex equity programs) and for programs for single parents, single pregnant women, and displaced homemakers (hereafter referred to as single parent programs). We also examine the roles of states' sex equity administrators and their perceptions of the Perkins Act. Data on these issues are available from the National Assessment's Omnibus Surveys and from a survey of state vocational sex equity administrators conducted by the National Alliance for Partnerships in Equity (an association of state sex equity personnel). (These surveys are described in the Technical Appendix in Volume V.)

We begin by examining program funding at the state level, including how funds are distributed within states. This section shows that funds have been greatly concentrated under the new Perkins Act, with larger grants going to a smaller number of recipients. It also reveals that single parent program funds are not targeted to poorer areas, in spite of a Perkins Act requirement to serve economically disadvantaged individuals.

We then review the nature and extent of sex equity and single parent services provided by regular school districts, area vocational schools, and postsecondary institutions, and compare the services provided by grant recipients and nonrecipients. We find that funded districts and postsecondary institutions provide more services than those that are not funded, although we cannot say whether these programs are fully meeting students' needs.

Finally, we examine the roles and opinions of state sex equity administrators concerning the 1990 Perkins Act. These administrators are found to have appropriate levels of responsibility in most states, but their involvement in other state-level Perkins initiatives varies greatly across states. Administrators also have a generally positive view of the Perkins Act, including many of its most significant changes. Although they are not pleased with the elimination of the set-aside funds (from which they could presumably draw in the past), this change does not appear to have adversely affected the delivery of services to the students targeted by these programs.

FUNDING OF SEX EQUITY AND SINGLE PARENT PROGRAMS

Concentration of Funds

The previous National Assessment found that sex equity and single parent funds were used for a wide range of activities and that grant sizes were typically very small, minimizing program impact.[4] The 1990 Perkins Act's mandate for funds allocation through competitive grants was one effort to increase the concentration of these funds. (The competitive process tends to disburse funds to a smaller number of recipients than does distribution by formula.[5])

Whether because of the competitive grant requirement or other factors, these funds have become more concentrated. From 1990–91 to 1991–92, sex equity and single parent funds were allocated to fewer sites with higher funding at each site. This concentration of funds was found for all recipients that we examined — regular school districts, vocational districts, and public two-year postsecondary institutions (see Table 2.1).

Table 2.1
Number (and Percent) of Eligible Recipients Receiving Sex Equity and Single Parent Grants, Median Grant Size, and Percent Receiving Grants Below Minimal Levels, 1990–91 and 1991–92

	Regular Districts	Vocational Districts	Two-Year Postsecondary Institutions
Sex Equity Funds			
Number (and percent) receiving funds in:			
1990–91	1,949 (9)	87 (34)	482 (49)
1991–92	1,454 (6)	62 (24)	397 (40)
Median grant size in:			
1990–91	$5,000	$20,234	$10,562
1991–92	$13,000	$36,501	$14,997
Percent of grants below $3000 in:			
1990–91	49	16	8
1991–92	17	5	4
Single Parent Funds			
Number (and percent) receiving funds in:			
1990–91	1,995 (9)	109 (43)	706 (71)
1991–92	1,772 (8)	85 (33)	593 (60)
Median grant size in:			
1990–91	$13,000	$34,929	$32,471
1991–92	$28,000	$36,196	$39,961
Percent of grants below $3000 in:			
1990–91	21	6	2
1991–92	6	0	1

Source: Omnibus Surveys of School Districts (A, B, and Vocational) and of Postsecondary Institutions

State policies can also act to increase grant sizes. For example, states can provide additional funds for sex equity and single parent programs or set minimum grant sizes. However, neither of these policies is widespread. Only 10 percent of state administrators of sex equity programs report additional state funding for these programs, as do 38 percent of single parent program administrators. Twenty-eight percent of all administrators report that their state has established minimum grant amounts, with the lowest state minimum for sex equity programs at $3,000, and for single parent programs, $3,500.

Targeting of Single Parent Funds

The Perkins Act also requires targeting of single parent funds. Section 113 of the Act calls for assurances that states "will emphasize assisting individuals with the greatest financial need" in using these funds. According to sex equity administrators, virtually all states meet this assurance by making it a requirement in program RFPs and/or using it as a criterion to evaluate RFPs. In most states it is left to the local provider to determine the specific method for targeting individuals with greatest financial need.

In spite of these efforts, single parent grants are no more likely to be awarded to localities that enroll high proportions of poor students than to those that enroll relatively few. For example, regular school districts enrolling the highest proportions of poor students and those enrolling the lowest proportions were equally likely to receive a single parent grant in 1991–92; 17 percent of the former received a grant, as did 15 percent of the latter. (For vocational districts the respective percentages were 24% and 24%, and for postsecondary institutions, 58% and 62%.)[6] Administrators' reports suggest that the preferred method of targeting is to give priority to the poorest individuals within each funded site. This strategy of allocating funds to sites regardless of poverty level but with poor individuals targeted within sites allows states to disperse funds broadly, a more politically palatable strategy. However, it is not consistent with the goals of the Perkins Act, as it is a less effective means of reaching those in greatest financial need.

State-Sponsored In-Service Training

According to Table 2.1, only 6 percent of regular districts received sex equity grants in 1991–92, and only 8 percent received single parent grants. These small proportions suggest that regular districts receive little from the Perkins sex equity effort. This is somewhat misleading, however, as sex equity and single parent funds are also used for state-level activities.

In fact, sex equity efforts appear to be a high state priority, and a relatively large proportion of regular districts benefit from this state effort. For example, 24 percent of regular school districts received in-service training in 1991–92 on the

elimination of sex bias in vocational education, a relatively high level of in-service offering.

Allocations Among Types of Institutions

Data from state sex equity administrators, shown in Figure 2.1, provide a more detailed breakout of the distribution of sex equity and single parent funds. As this figure shows, postsecondary institutions and area vocational schools (AVSs) were the largest recipients of sex equity and single parent funds, followed by school districts, then community-based organizations (CBOs).

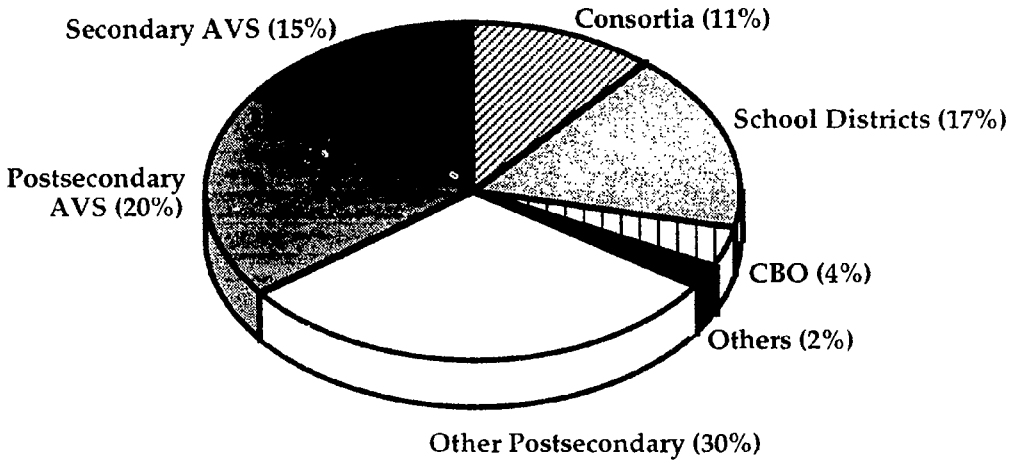
Area vocational schools also received large proportions of funds relative to their share of vocational enrollments, while regular school districts and postsecondary institutions received relatively small proportions of funds. For example, secondary AVSs include about 20 percent of secondary vocational students, but received 35 percent of sex equity funds and 39 percent of single parent funds awarded to secondary institutions (32% and 28% if CBOs are included). More remarkably, area vocational schools serving primarily postsecondary students include fewer than 10 percent of postsecondary vocational enrollments, yet they received 40 percent of sex equity funds and 45 percent of single parent funds awarded to postsecondary institutions (37% of each if CBOs are included).

Why area vocational schools are such preferred recipients is unclear; state eligibility rules are an obvious factor, but others may be operating as well. One possibility is that states choose to target funds to AVSs because these institutions have high concentrations of vocational students. The previous National Assessment found, for example, that AVSs were often preferred sites for establishing centers for displaced homemakers.[7] Another possibility, supported by other findings in this report, is that AVSs are better "tuned into" the Perkins Act — they may be more interested in and thus better able to attract Perkins funds than are other institutions.

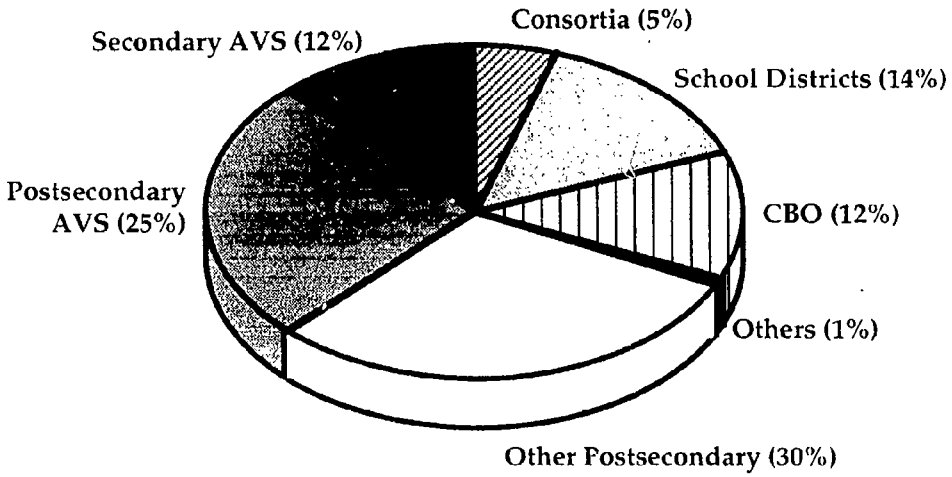
State eligibility rules and procedures clearly contribute to the small percentage of funds awarded to CBOs. Previous research demonstrated an undue exclusion of these organizations from the grant process in some states.[8] As a result, the 1990 Perkins Act added language to strengthen CBOs' role in this process, a strategy that appears to have been less than fully successful. In 1991–92, most — but not all — administrators reported that CBOs were directly or indirectly eligible for funding in their state. In that year, CBOs were excluded from 28 percent of all RFP distribution lists. This exclusion necessarily limits the extent to which variety and competition are fostered in the grant process.

Figure 2.1
Average Percent of Sex Equity Funds and Single Parent Funds Awarded to Eligible Recipients, 1991–92

Sex Equity Funds



Single Parent Funds



Source: National Alliance State Sex Equity Administrator Survey

ACTIVITIES AND SERVICES AT THE LOCAL LEVEL

Perkins sex equity and single parent funds are designed to improve the vocational programs and services available to students at the local level. In this section, we examine the extent to which localities offer services for nontraditional students, single parents, single pregnant women, and displaced homemakers; the types of services most frequently offered; and the extent to which Perkins funding increases service availability.

Sex Equity Activities and Services

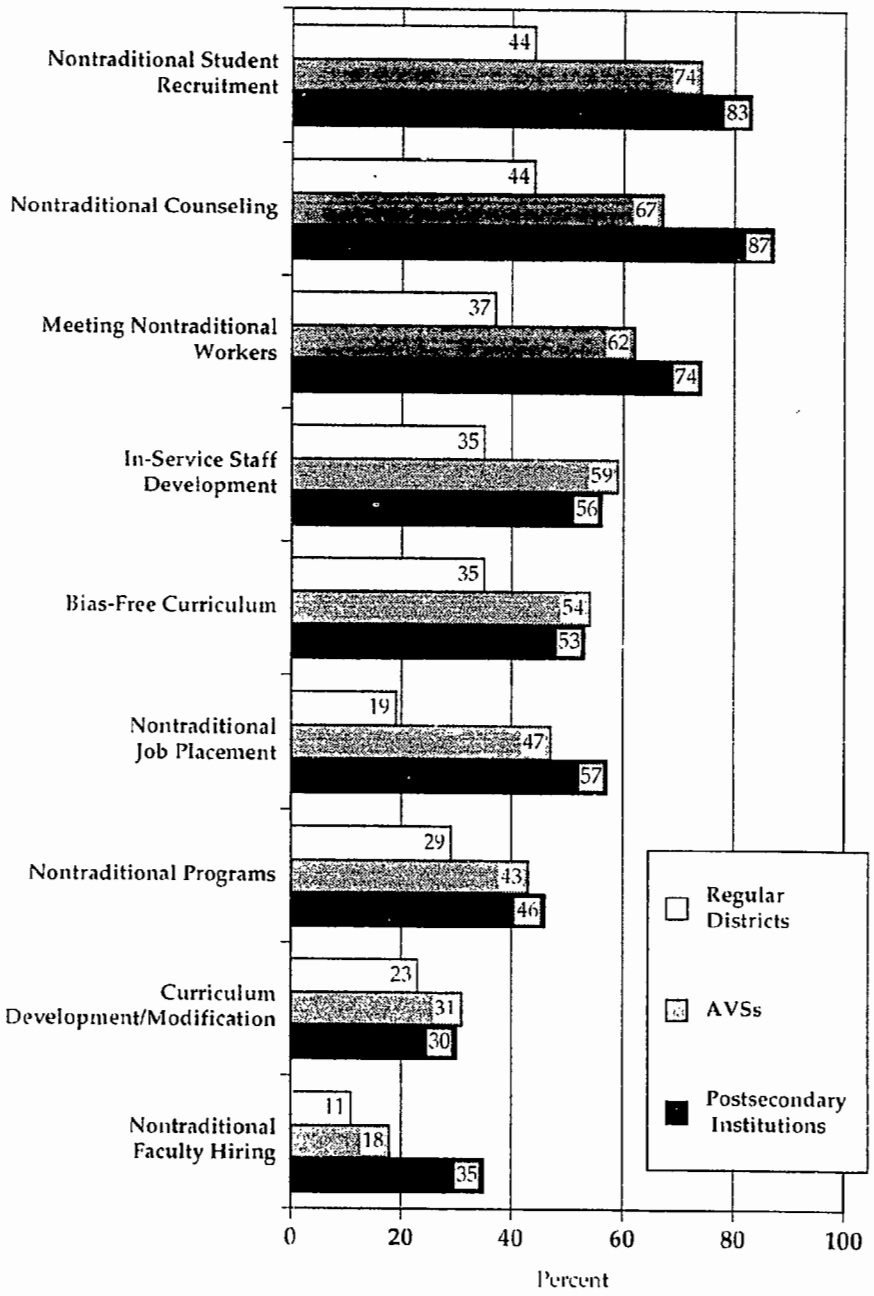
In the Omnibus Survey, almost half of all regular districts (47%) reported that they did not engage in any activities to reduce sex bias. Twenty-two percent of AVSs and 5 percent of postsecondary institutions did not offer any sex equity activities.[9] Among those that did offer activities or services, the average number offered also differed by institution type. Districts offered the fewest services, AVSs offered an intermediate number, and postsecondary institutions offered the most (30%, 50%, and 58% of listed services offered).

These differences do not seem to be due to different probabilities of receiving Perkins funds. Even among unfunded institutions, only 51 percent of regular districts offered sex equity services, compared to 91 percent of postsecondary institutions. (Data by funding status are not available for AVSs.) It seems that regular districts, vocational districts, and postsecondary institutions have different propensities to address sex equity issues, and the institution types that are more likely to do so are, not surprisingly, more likely to be awarded sex equity grants.

However, the three types of institutions are remarkably similar in the services they provide (see Figure 2.2). The most commonly offered services are counseling in nontraditional fields, active recruitment of students to nontraditional fields, and opportunities for students to meet nontraditional workers. The least commonly provided services are those that involve more costly and extensive changes — curriculum development or modification and programs designed for nontraditional students — as well as hiring or placement of faculty in nontraditional fields (which is limited by faculty vacancy rates).

It is difficult to judge the effectiveness of these services. The case studies suggest that modest changes can make a small, but important difference. In one district, for example, a new student recruitment policy required prospective AVS students to tour all program facilities rather than just those in which they were initially interested; this seemed to broaden students' enrollment choices. Studies of nontraditional vocational students and their classes also point to the importance of increasing instructors' awareness of sex equity issues.[10] These types of changes are relatively inexpensive, but require an institutional commitment to sex equity. More comprehensive efforts may also be needed to

Figure 2.2
Percent of Localities That Offered Each Sex Equity Service or Activity in 1991–92



Sources: Omnibus Surveys of School Districts (Version A), of Vocational Schools, and of Postsecondary Institutions

ensure that students complete nontraditional programs; teachers and administrators in our case studies identified attrition among nontraditional students as a continuing problem.

Activities and Services for Single Parents, Single Pregnant Women, and Displaced Homemakers

Vocational programs appear to serve large numbers of single parents, single pregnant women, and displaced homemakers, particularly at the postsecondary level. Approximately 101,000 individuals in these categories are enrolled in vocational education programs at the secondary level (according to Omnibus Survey data). Further, almost half of regular school districts (43%) enroll these individuals in vocational programs, as do 78 percent of secondary AVSs. The total number of postsecondary students in these categories is unknown, but virtually all public two-year institutions (96%) enroll single parents, single pregnant women, and displaced homemakers, and about 369,000 postsecondary vocational students are unmarried and have dependents. [11]

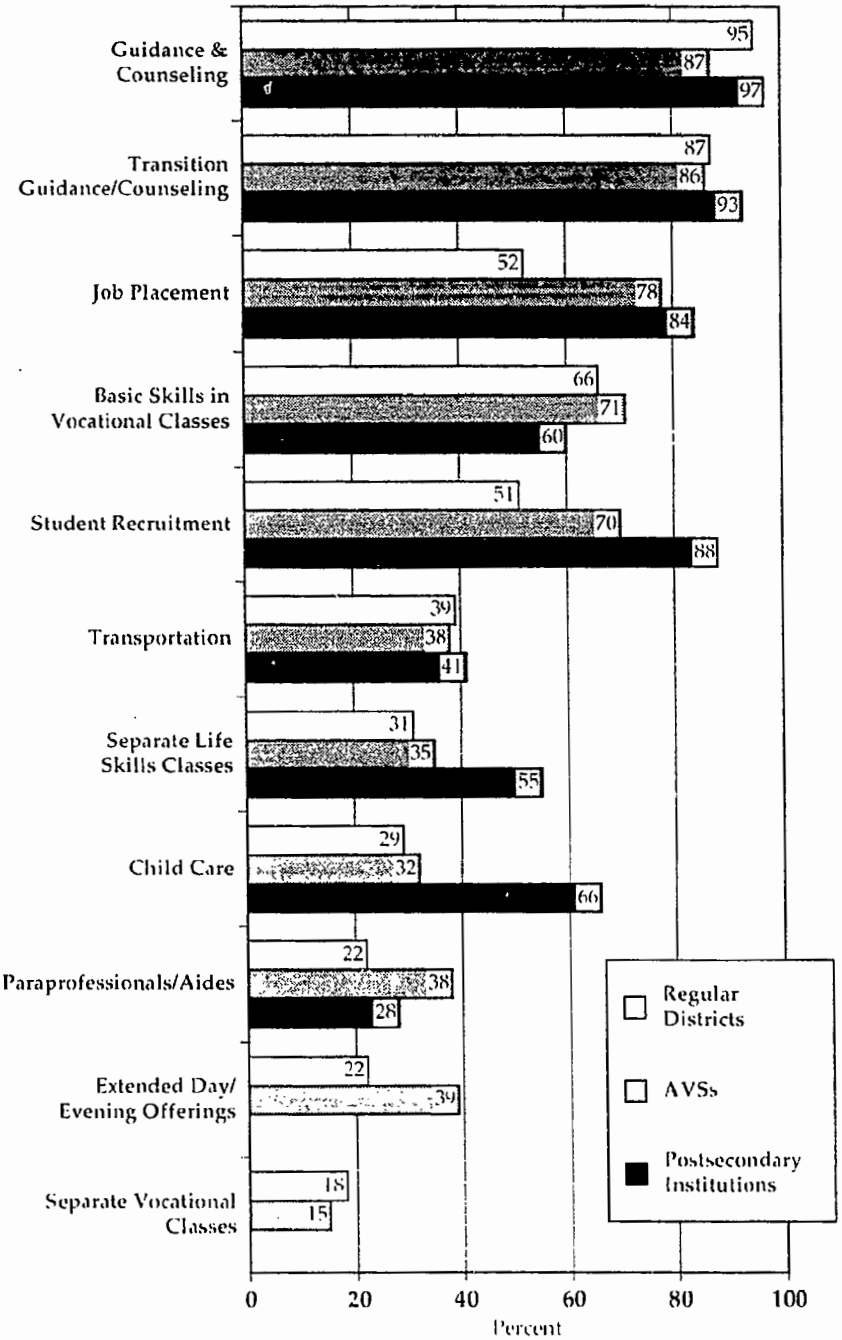
As is true for sex equity services, postsecondary institutions are the most likely to provide services for single parents, single pregnant women, and displaced homemakers, followed by area vocational schools, then regular districts (67%, 53%, and 45% of listed services offered; also see Figure 2.3).[12] One reason postsecondary institutions may be more likely to provide these services is that the targeted populations are more prevalent at this level, thereby increasing the need for services and making service provision more feasible. (For example, it is easier to justify child care services for 40 single parents than for five.)

The services offered are fairly consistent across institution types, with guidance and counseling services being most frequently offered (although, as discussed below, we doubt they are offered as often as reported), followed by job placement services and basic skills classes. However, postsecondary institutions place more emphasis than do secondary districts or AVSs on student recruitment, separate life skills classes, and child care services.

Again, it is difficult to judge the effectiveness of these efforts. Targeted counseling (for building self-confidence, assertiveness, parenting skills, and career planning) appears crucial and is a common element in programs for these students.[13] Outreach and recruitment efforts are particularly critical at the postsecondary level to reach individuals who are no longer in school, and child care services (or referral to these services) are of obvious importance. However, there appears to be some ambivalence about the focus on vocational training for these students. One recent study of teen parent programs noted:

> School staff everywhere strongly support the goal of economic self-sufficiency for teen mothers. But they are often reluctant to actively advocate vocational education as a

Figure 2.3
Percent of Localities Enrolling Single Parents, Single Pregnant Women, or Displaced Homemakers That Offered Each Service in 1991–92



Sources: Omnibus Surveys of School Districts (Version A), of Vocational Schools, and of Postsecondary Institutions

> means of achieving self-sufficiency for fear that teen mothers will come to believe that they are incapable of more academic pursuits. [14]

This concern is heightened by the fact that many traditionally female vocations are low paying (e.g., secretarial and clerical positions, health aides, hospitality and other personal service positions). To avoid this dilemma, some programs focus on nontraditional occupations or on entrepreneurial skills. But encouraging these students to be "trailblazers" raises other concerns about placing them in situations where they are likely to face further hurdles and obstacles, in addition to the barriers they face in their role as single mothers.

Guidance and Counseling Services

The nearly ubiquitous availability of guidance and counseling services for nontraditional students and for single parents, single pregnant women, and displaced homemakers points out the limitation of survey data on this issue. It is our experience that, except where Perkins funds are available, few counselors are actually trained to deal specifically with the vocational needs of these students, and few targeted guidance programs exist for them. Many respondents are clearly assuming that the availability of any guidance or counseling constitutes a specific service for these special-needs students.

In contrast, information on effective single parent programs suggests that intensive, specialized guidance is one of the key features of these programs; standard guidance services are not enough. The data in this section thus should be viewed as overestimating the extent to which guidance and counseling services are appropriately provided.

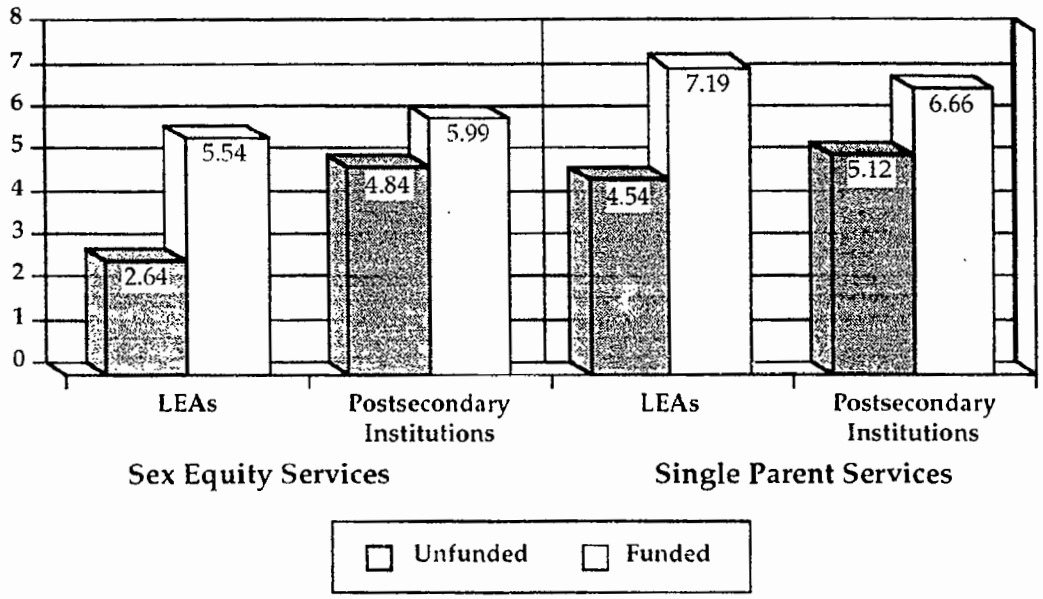
Effects of Perkins Funding on Service Availability

In this section, we examine the extent to which Perkins sex equity and single parent funding is associated with service provision: Are services more likely to be offered in districts or postsecondary institutions that receive funds than in those that do not? [15]

The average number of sex equity services offered by regular school districts and postsecondary institutions that did and did not receive sex equity funds in 1991–92 is shown in Figure 2.4.[16] As expected, funded districts and postsecondary institutions offer more services than their unfunded counterparts. Since most localities that received sex equity funds in 1991–92 also had these funds in 1990–91, this higher level of service provision is best viewed as resulting from multiyear funding, rather than from 1991–92 funding alone.

The effects of funding appear to be particularly large at the secondary level. On average, funded postsecondary institutions offer 1.25 times as many sex equity

Figure 2.4
Average Number of Sex Equity and Single Parent Services Offered, by Institution Type and Funding Status, 1991–92



NOTE: All averages are for 9 listed services, except for secondary single parent averages, which are based on 11 listed services.

Source: Omnibus Surveys of School Districts (Version A) and of Postsecondary Institutions

services as unfunded postsecondary institutions, while funded districts offer twice as many services as unfunded districts. Similarly, funded postsecondary institutions offer almost 1.33 times as many single parent services as unfunded institutions, while funded districts offer 1.5 times as many single parent services as unfunded districts.

The higher level of sex equity and single parent services among funded localities does not prove that Perkins funding increases the likelihood that services are offered, since localities that already offer more services could be more likely to receive grant funds. However, given the supplemental nature of these services and the size of the observed differences, it seems unlikely that pre-existing service differences account for these findings. In addition, because localities tend to count any available guidance activity as a special sex equity or single parent service, these findings most likely understate the greater availability of specialized guidance services in funded sites.

Finally, the greater increase in service provision among funded districts compared to funded postsecondary institutions does not appear to be due to larger grants. Both overall grant size and per-student grant size are larger for postsecondary institutions than for regular districts. However, this difference in **level** of service provision could be misleading, as postsecondary institutions may concentrate their funds on fewer (and sometimes more costly) services, such as more extensive guidance efforts, separate classes, and child care services.

THE STATE VOCATIONAL SEX EQUITY ADMINISTRATOR

The 1990 Perkins Act, like its predecessors, provides funds for each state and the District of Columbia to employ a full-time state vocational sex equity administrator, whose main responsibility is administering the Perkins 10.5 percent reserve funds. As of spring 1992, all 50 states, the District of Columbia, **and** Guam and Puerto Rico had established a "state" sex equity administrator position.

In addition, at least 13 states and territories employ a second administrator to help manage these funds. These include two of the most populous states, Texas and California, as well as 10 other states and Guam. The typical pattern in two-administrator states is for each administrator to manage both sex equity and single parent funds, one at the secondary level, the other at the postsecondary level.

Sex Equity Administrators' Responsibilities

In this section, we examine the extent to which these administrators are fulfilling their roles, including those responsibilities explicitly mandated by the Perkins Act and others suggested by the Act's overarching concern with equity and program quality. In the following section, we examine administrators' views on the effects of the Perkins Act on state and local efforts.[17]

Section 111 of the 1990 Perkins Act lists 12 responsibilities for the state sex equity administrator. These can be grouped into four general categories: (a) manage the 10.5 percent reserve programs and funds; (b) assess the extent to which the needs of women and nontraditional students are being met; (c) provide assistance to local recipients; and (d) develop recommendations for outreach programs. Historically, some administrators have been hindered in their efforts to fulfill these responsibilities by a lack of support from their state vocational education agency.[18] We found that in a few states, resistance to sex equity efforts apparently still exists, although most states appear to be supportive.

For example, most administrators feel they have been given full responsibility for the funds they manage, although about 10 percent feel they have only partial responsibility for these funds. Also, 74 percent feel that other administrators in their state are supportive of their activities, while 15 percent feel these other

administrators are not supportive. In the few states where administrators do not appear to have the authority or responsibility that the Perkins Act demands, a network of "good old boys" is typically (perceived to be) operating.

A second issue is the broader question of the extent to which administrators fulfill their various responsibilities, and how their roles and activities are evolving. On average, administrators feel that their level of responsibility and activity has increased under the new Perkins Act. While most administrators view their increased responsibilities positively as a sign of growing authority and input (see Figure 2.5 in the following section), some noted difficulties created by heavier workloads and reduced state staffing, which appear to particularly limit administrators' time for working directly with local programs. In fact, most administrators report that they do not have sufficient time to fulfill their Perkins responsibilities, particularly those that involve interacting with or collecting data on local programs (see Appendix Table A-2.2).[19]

The one Perkins-mandated responsibility that administrators seem to have the most difficulty fulfilling is the review of proposed actions on grants, contracts, and state board policies. Almost one in five administrators (18%) reported that they did not conduct this activity in either 1990–91 or 1991–92, and administrators rank this as one of the activities for which they have the least time. The review of state board policies is particularly infrequent: Almost one-third (31%) report that they have no input into the review of these policies, and over half (58%) report that they have little or no input.

Cooperation With Consumer and Homemaking Education

The 1990 Perkins Act also requires that the person in charge of consumer and homemaking education cooperate with the state sex equity administrator to eliminate sex bias and stereotyping in vocational education. In most cases, there is some level of cooperation between these individuals, although it is usually sporadic. Only 34 percent of sex equity administrators report interacting with consumer and homemaking officials on a regular basis, while the majority (54%) interact on an occasional basis. Eleven percent report that they have no interactions with these individuals.

Role in State Performance Standards

The Perkins Act also requires that the state sex equity administrator be consulted in the process of selecting the Committee of Practitioners, the group that establishes the Perkins-mandated system of performance standards and measures. We did not ask specifically about this input, which is relatively minor, but focused instead on the degree to which sex equity administrators are consulted in the development of the state performance measurement system.

The picture is quite mixed. While 43 percent of administrators report playing a moderate or major role in the development of these systems, 34 percent play a minor role, and 23 percent have no role. However, the inclusion of sex equity issues in the design of the performance measurement system appears to be fairly common. In spring 1992, when administrators were surveyed, many states were still in the early stages of developing their performance measurement system. As a result, only 58 percent of the administrators knew whether this system would address sex equity issues. But of those who could judge, most (87%) reported that the system did or would have some provision for sex equity issues.

Role in Tech-Prep Initiatives

Among the major new initiatives in the 1990 Perkins Act are tech-prep programs. Preliminary indications suggest that female students may be slightly underrepresented in these programs. For example, the median percentage of women in secondary tech-prep programs is 38 percent, while 43 percent of secondary vocational students are women. Likewise, a median 48 percent of postsecondary tech-prep students are women, while 54 percent of postsecondary vocational students are women.[20] These small differences may not be statistically significant, but they point out the need to ensure that female students are appropriately represented in these innovative programs as they expand.

The involvement of sex equity administrators in state tech-prep initiatives is one means of ensuring equitable access and participation in these programs. However, administrators' involvement in tech-prep initiatives is usually small. Where state-level efforts exist, only 30 percent of sex equity administrators play a moderate or major role in tech-prep activities. About one-third play a minor role, and another one-third have no role (36% and 34%, respectively). This is a slightly lower level of involvement than exists for the state system of performance standards and measures.

In addition to involving the sex equity administrator in tech-prep activities, states can also encourage sex equity in tech-prep programs by requiring that the issue be addressed in RFPs. About 60 percent of states include at least one of three sex equity provisions in tech-prep RFPs: a requirement for addressing sex equity issues; priority placed on sex equity issues; or required monitoring of the participation of women. Forty percent of states do not include any of these provisions.

The sex equity administrator's involvement in state tech-prep activities is clearly related to the inclusion of these provisions in tech-prep RFPs. In the 15 states where the administrator is not involved in tech-prep initiatives, only two states' RFPs include any of these equity provisions; in the 13 states where the administrator has a moderate or major role, 12 states include at least one of these provisions. We cannot discern the direction of causality; it could be that the administrators' input leads to the inclusion of these equity provisions, but it is

also possible that states that are more attuned to sex equity issues independently seek these administrators' input **and** include sex equity provisions in their tech-prep RFPs.

Interestingly, states that give sex equity administrators a larger role in developing performance standards and measures are not more likely to give them a larger role in developing tech-prep initiatives. As a result, only very few administrators — 9 of 50 respondents, or 18 percent — play at least a moderate role in both Perkins initiatives.

Perceived Effects of the 1990 Perkins Act

The State Sex Equity Administrator Survey asked these administrators for their initial impressions of the Act's effects as of spring 1992. However, since this was early in the implementation of the 1990 Perkins Act, these questions were asked again in spring 1993, at the annual meeting of the National Alliance for Partnerships in Equity. The second wave data come from a smaller number of administrators (about 30), since not all administrators attended the session in which the survey was conducted.

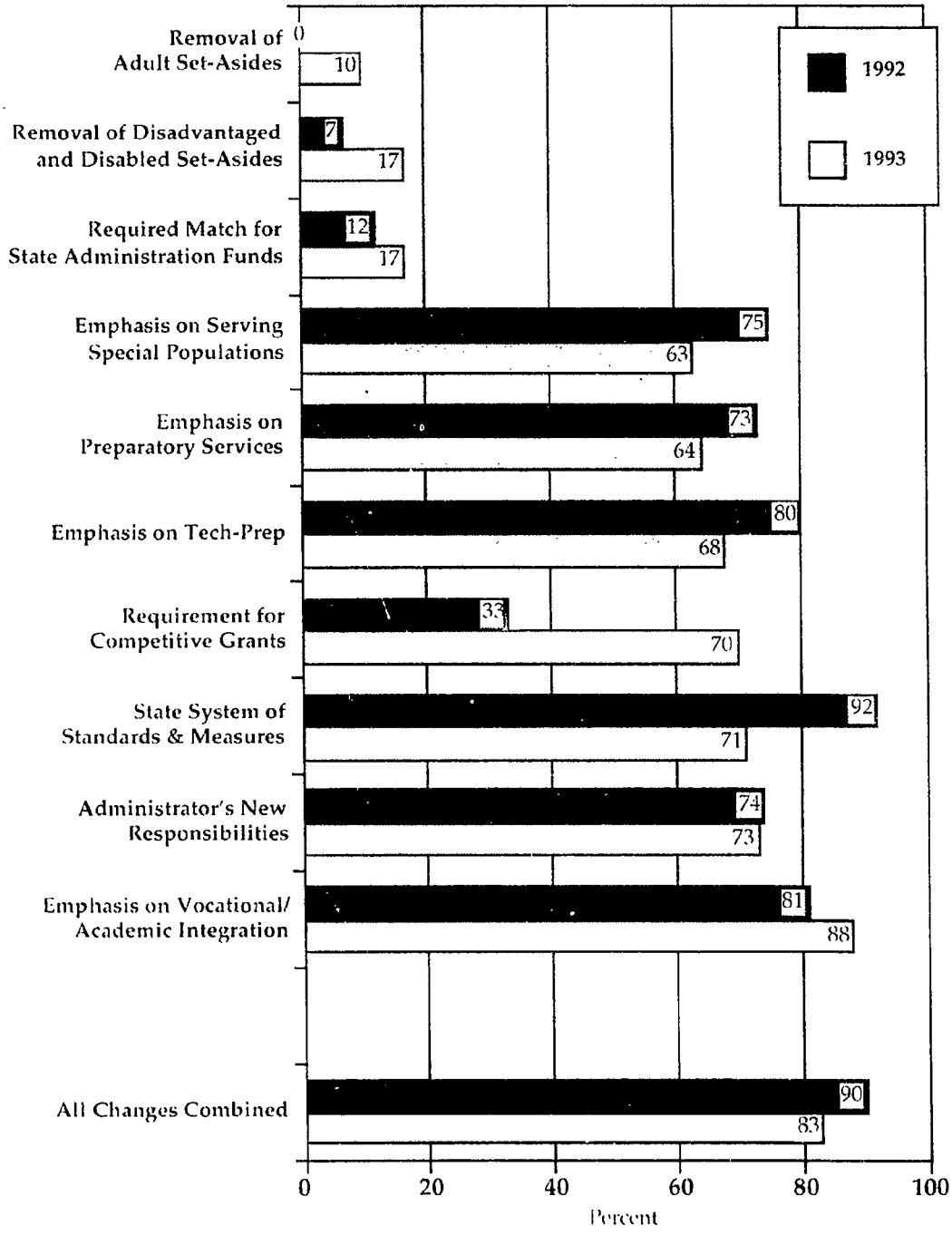
In this section, we examine administrators' most recent opinions on the effects of the Perkins Act, and how their opinions changed from 1992 to 1993. To provide an unbiased comparison, we include in the 1992 sample only those administrators who also responded to the 1993 survey.[21]

Effects of 1990 Perkins Act Provisions

The Perkins Act contains a number of new or modified provisions designed to improve the administration and implementation of the 10.5 percent reserve programs, as well as to improve vocational education in general. Administrators viewed most of these changes positively in terms of their effects on sex equity and single parent programs, and their views remained positive two years after Perkins implementation (see Figure 2.5; complete data are in Appendix Table A-2.3).

The only Perkins Act changes administrators viewed as having negative effects, on average, are those that in some way restrict the amount of funding available for the students served by the 10.5 percent reserve programs. For example, the removal of the adult, disadvantaged, and disabled set-aside funds was viewed negatively by about 40–50 percent of the administrators. The required state match for Perkins state administration funds is also viewed as having negative effects, although about half thought this requirement had no effect on their programs. Opinions on the effects of these provisions did not change much from spring 1992 to spring 1993.

Figure 2.5
Percent of Administrators Rating Provisions of the 1990 Perkins Act as Having Had a Positive Effect on Their Programs, Spring 1992 and Spring 1993 (Matched Samples)



Source: National Alliance State Sex Equity Administrator Survey and Followup

In contrast, administrators' view of the Perkins Act requirement that the 10.5 percent reserve funds be allocated via competitive grants changed dramatically. In spring 1992, only one-third saw this requirement as having a positive effect. At that time, they expressed concerns with the short timeframes for conducting grant competitions, the lack of administrator discretion in the competitive process, and the uncertainty of continued funding for individual programs. However, a year later 70 percent of administrators viewed the competitive process as having a positive effect. The ability of the competitive process to target funds to sites with higher quality programs seems to eventually compensate for other shortcomings.

Other important Perkins Act changes include the increased emphasis on preparatory services, serving special populations, vocational-academic integration, tech prep, and the state system of performance standards and measures. Administrators viewed all of these changes as overwhelmingly positive, although some of their initial positive response seems to be a result of high expectations that wore off somewhat over time. For example, while initially about 80–90 percent of administrators viewed tech prep and performance standards favorably, only about 70 percent viewed these initiatives favorably by spring 1993 — still a majority, but not as strong a majority. By spring 1993, integration had the most favorable rating of all the new Perkins provisions, with 88 percent of administrators viewing vocational-academic integration as having positive effects.[22]

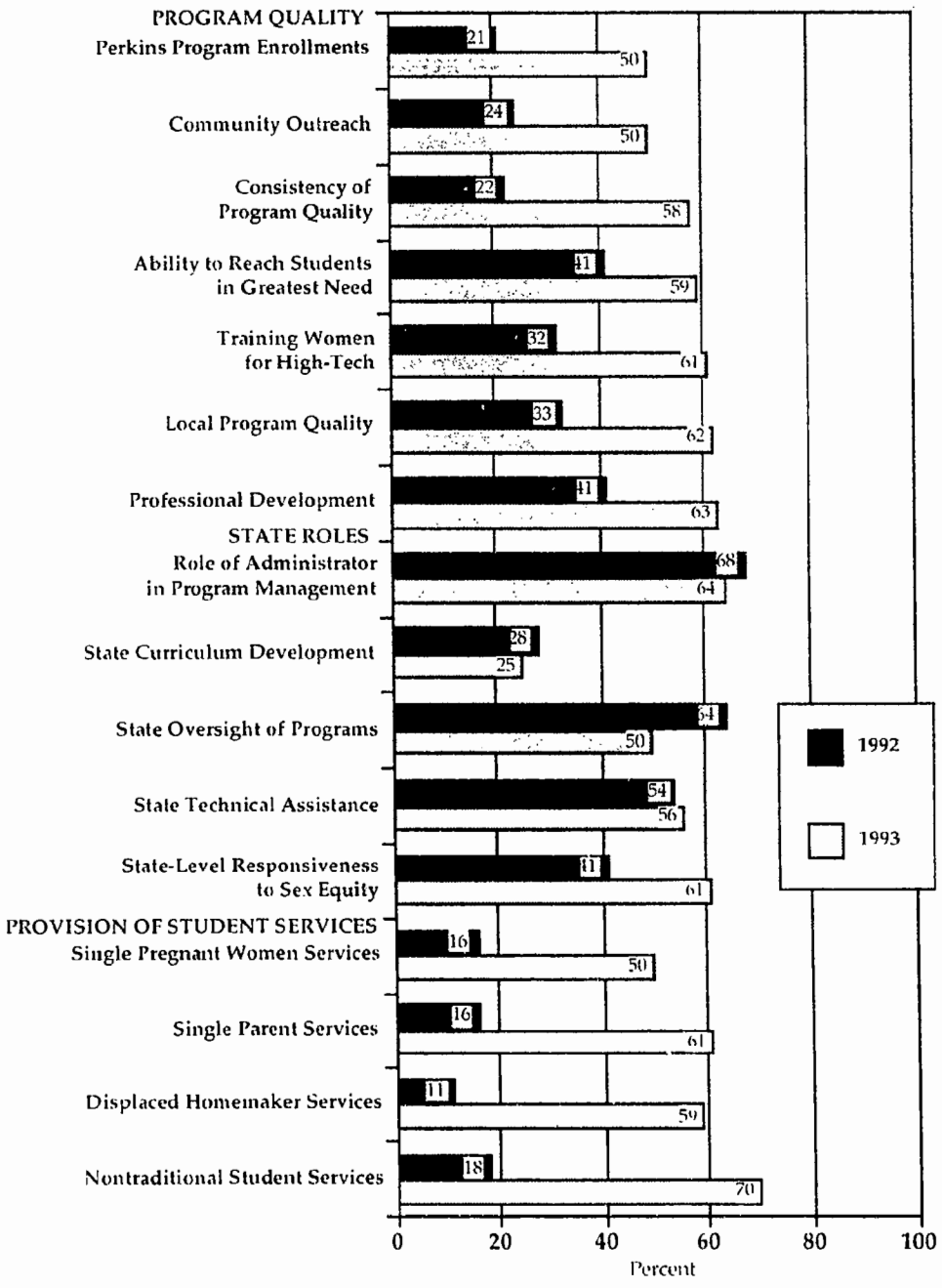
Effects of the Perkins Act on Programs and Services

State sex equity administrators also think the 1990 Perkins Act has improved state program administration, local programs and services, and the ability to meet students' needs (see Figure 2.6; complete data in Appendix Table A-2.4).

After one year of Perkins implementation, most administrators reported no noticeable effects on state and local efforts. However, even at that point, the average response was that state sex equity efforts, local programs and services, and the ability to meet students' needs had increased under the new Act.

A year later, administrators' impressions of the Perkins Act's effects had become clearer and stronger, sometimes dramatically. By spring 1993, a majority felt that the Perkins Act had increased or improved virtually all state and local efforts. For example, in 1992 only 33 percent of administrators thought that the "overall level of program quality" had improved as a result of Perkins, but by 1993, 62 percent thought so. The largest increases were in "the provision of services most needed" by students. In 1993, 50–70 percent of administrators felt that the Perkins Act had improved the provision of these services, compared to only 11–18 percent in 1992.

Figure 2.6
Percent of Administrators Rating the 1990 Perkins Act as Increasing Each Program Feature, Spring 1992 and Spring 1993 (Matched Samples)



Source: National Alliance State Sex Equity Administrator Survey and Followup

The positive perceptions of the Perkins Act's effects on local program efforts and features (i.e., the provision of needed services, program enrollments, and program quality) are particularly encouraging, as the Perkins Act included changes that dealt only indirectly with these issues. It is especially interesting that the ability to reach students in need and to provide relevant student services has not declined; this suggests that elimination of the disadvantaged, disabled, and adult set-asides has not had a negative impact on these programs (or that any negative impact it did have was counterbalanced by other factors). We saw earlier (in Chapter 1) that this also seems to be true for services and programs supported with local basic grant funds.

CONCLUSION

Funding. Under the new Perkins Act, sex equity and single parent grants have become more concentrated — fewer sites receive grant awards, but the awards made are larger than they were under the previous Perkins Act. This shift is most likely attributable to the Perkins requirement for allocating sex equity and single parent funds through a competitive process, although minimum grant requirements are also helping concentrate funds in some states.

The Perkins Act requires that states give priority to "individuals with the greatest financial need" when allocating single parent funds. Most states address this mandate by using criteria intended to target service provision to individuals with greatest need within a funded site, rather than targeting funds to sites that are the most economically disadvantaged. As a result, districts and postsecondary institutions that serve high concentrations of economically disadvantaged students are no more likely to receive single parent grants than are those that serve low concentrations of these students. This funding pattern does not appear to be consistent with the intent of the 1990 Perkins Act.

In short, the competitive grant requirement has had positive effects and should be retained. However, the priority given to serving individuals with financial need within the single parent grant program needs strengthening. The Perkins Act should require that priority be given to funding localities that are the most economically depressed and/or that have the highest concentrations of targeted individuals (single parents, single pregnant women, and displaced homemakers).

Local Sex Equity Services. While only 5 percent of public two-year postsecondary institutions offer no sex equity programs or services, 22 percent of AVSs and almost 50 percent of regular school districts offer no sex equity programs or services. Among those that do offer services, the types of services offered are similar across providers: Recruitment and counseling services are the most common, and curriculum development and faculty hiring are the least common. Sex equity services are not unique to Perkins-funded sites, but are more prevalent at these sites. This funding effect appears to be larger at the secondary

level than at the postsecondary level, possibly because postsecondary institutions concentrate their funds on fewer services.

Local Single Parent Services. Most providers that enroll single parents, single pregnant women, or displaced homemakers in their vocational programs offer at least some services for these students. Across providers, counseling and job placement are the most common services, and child care, extended offerings, and separate vocational classes are least common. However, we question whether appropriate, targeted counseling is as available as these data suggest.

As is true for sex equity services, the positive effect of funding on service availability appears to be larger at the secondary level than at the postsecondary level; in this case, it is clearer that this results from postsecondary institutions focusing on a few, more costly services such as child care, recruitment, and separate classes.

Although we were not able to formally evaluate sex equity and single parent programs, we have formed some impressions of these programs that have implications for Perkins funding. We believe that locally run single parent programs effectively serve individuals with special needs and requirements. On the other hand, the structure and effects of sex equity programs are less easy to discern. In general, what seems to be needed to improve sex equity in vocational education is the building of institutional support for and individual understanding of sex equity issues. These goals may be most effectively achieved through state-level efforts, rather than local efforts. State efforts are likely to be more consistent, visible, and widespread; in particular, these efforts can reach more school districts than are reached by the current grant process.

Thus, we believe that the most promising route for affecting the desired changes in sex equity policy and practice is to concentrate efforts at the state level. The state can more efficiently and effectively conduct outreach, in-service, and other activities needed to raise awareness of sex equity issues among administrators, teachers, and students, and can encourage more extensive and systematic change than is possible through local grants. At the least, the viability of converting sex equity grants to funds for state-level sex equity efforts should be considered as part of the next National Assessment of Vocational Education.

State Administrators. State sex equity administrators seem to have appropriate levels of authority in most states, although a few states appear to still be resistant to these individuals and their programs. Most sex equity administrators interact with their states' consumer and homemaking education official, as required by the Perkins Act, although about one-tenth do not. The sex equity administrators' role in other Perkins initiatives varies; most are at least somewhat involved with state performance standards and tech-prep initiatives, but one-quarter are not involved in performance standards and one-third are not involved in tech prep.

Only a small minority have significant involvement in both initiatives. State administrators also seem to have only limited involvement in the review of state board policies and other state actions. However, this may result more from a lack of time or legislative clarity than from a lack of authority.

In general, there does appear to be a growing tension between the increased authority and responsibilities given these administrators and the amount of time they have to fulfill these responsibilities. Oversight of local programs and local program assistance efforts are in some cases decreasing as other administrative responsibilities increase. Administrators also have difficulty fulfilling less pressing administrative tasks such as the review of state procedures and policies, or participating in state efforts related to other Perkins initiatives. Difficulty in juggling responsibilities is a typical problem at this level of administrative functioning, and thus may not be cause for concern. However, **if federal policymakers wish to ensure that certain responsibilities are fulfilled, they may need to prioritize administrators' responsibilities, or otherwise strengthen the mandate for conducting activities deemed most critical.**

Perceived Effects of Perkins. State sex equity administrators report positive effects from the Perkins Act, although not from the elimination of the set-asides. Because they do not report a decline in their ability to reach students in need or in program quality, it seems that the elimination of the set-asides has not adversely affected the students served by these programs.

In general, administrators perceive the 1990 Perkins Act to have had a positive effect on many state and local responsibilities concerning sex equity, including states' attention to these issues and local program quality and service delivery. The new Perkins program improvement initiatives (integration, tech prep, performance standards) are also perceived as having positive effects, even though these initiatives are not directly related to sex equity issues.

It also appears that it takes more than a year for most Perkins Act effects to become evident. While some Perkins initiatives (e.g., integration, tech prep) seemed to engender initially high expectations that were tempered over time, others (e.g., competitive grant requirement) created initial confusion and concern that was alleviated over time.

Overall, administrators did not feel that most Perkins effects could be judged until two years after implementation. In fact, a substantial minority (about one-fourth to one-third) felt that two years was not long enough to judge the effects of some aspects of the Perkins Act (e.g., the removal of the set-asides, integration, tech prep, state performance standards), or the effects of the Act on important program features (e.g., the ability to reach students in need, changes in service provision, overall program quality). **In short, the effects of major policy changes to the Perkins Act take time to become evident, and should be evaluated no sooner than two years after initial implementation. The Perkins**

Act assessment and re-authorization cycle should be adjusted to reflect this requirement.

ENDNOTES

1 Committee on Education and Labor, House of Representatives (1976), *The Vocational Education and National Institute of Education Amendments of 1976* (Report No. 94-1085), Government Printing Office.

2 National Displaced Homemakers Network (1990), *The More Things Change . . . A Status Report on Displaced Homemakers and Single Parents in the 1980s.*

3 Millsap, M.A., & Muraskin, L.D. (in press), Federal vocational education policy in the U.S. In T. Husen & T.N. Postlethwaite (Eds.), *The International Encyclopedia of Education* (2nd Ed.), Pergammon Press.

4 Muraskin, L.D. (1989), *National Assessment of Vocational Education, Final Report, Vol. II., The Implementation of the Carl D. Perkins Act*, U.S. Department of Education.

5 Cf. National Coalition for Women and Girls in Education Vocational Education Task Force (1988), *Working Toward Equity: A Report on Implementation of the Sex Equity Provisions of the Carl D. Perkins Vocational Education Act.*

6 Poor students are defined at the secondary level as those eligible for federal free or reduced-price lunch, and at the postsecondary level as recipients of Pell Grants or Bureau of Indian Affairs assistance.

7 Muraskin (1989).

8 National Coalition for Women and Girls in Education (1988).

9 We have data on sex equity and single parent services for vocational schools but not for vocational districts. However, comparisons of data for comprehensive high schools and regular school districts show the level of service provision to be very similar at the school and district levels. This is probably true for vocational schools and districts as well.

10 Goldsmith, D.J., et al. (1989), *It's Our Shop Too: A Study of Students in Nontraditional Occupations in Connecticut's Vocational-Technical Schools*, Hartford, Vocational Equity Research, Training and Evaluation Center.

11 Based on data from the 1989–90 National Postsecondary Student Aid Study.

12 Among unfunded institutions, regular districts offer 42% of listed services, and postsecondary institutions offer 56%. Appendix Table A-2.1 lists the percentage of all districts, AVSs, and two-year postsecondary institutions that offer each supplemental service for single parents, single pregnant women, or displaced homemakers, regardless of whether they enroll these individuals in their vocational education programs.

13 Zellman, G.L., Feifer, C., & Hirsch, A.E. (1992), *Access to and Use of Vocational Education in Teen Parent Programs*, The Rand Corporation.

14 Ibid., p. vii.

15 AVSs are not examined in this section because data linking Perkins funding to AVSs are not available.

16 Funded localities are those that received Perkins sex equity funds in 1991–92; unfunded localities are those that did not receive these funds in 1990–91 or 1991–92. Localities that had been funded in 1990–91 but not in 1991–92 were eliminated from the "unfunded" category because they offer more services than those that were "never funded." This carryover funding effect would inappropriately dilute the effects of Perkins funding if these localities had been included. Also, too few localities received funds only in 1991–92 to permit a separate analysis of this group.

17 Because all administrators of Perkins Act funds should technically be covered by the Perkins mandates, the following sections make use of information provided by all state vocational sex equity administrators, whether or not they are their state's **designated** Perkins sex equity administrator. The findings are essentially the same when only designated Perkins administrators are examined.

18 National Coalition for Women and Girls in Education (1988).

19 Administrators' feelings of overwork are not new. Administrators voiced similar concerns during the 1981 hearings on reauthorizing the 1963 Vocational Education Act.

20 Tech-prep enrollment data are from administrators' reports on the Omnibus Followup Surveys. Secondary vocational enrollments are derived from student transcripts collected in the 1992 National Education Longitudinal Study (NELS); vocational students are defined as those earning at least three credits in vocational courses within a specific vocational program area (such as agriculture, business, or the trades). Postsecondary vocational enrollments are from the 1989–90 National Postsecondary Student Aid Study (NPSAS); vocational students are those who listed a vocational program area as their major area of study.

21 1992 data from the full sample are included in the *Interim Report*; those data are not very different from the reduced sample data, suggesting that the 1993 sample is not systematically biased.

22 It should be noted that a relatively high proportion of administrators felt it was too early to judge the effects of the new Perkins initiatives (integration, tech prep, and performance standards), even by spring 1993. (See Appendix Table A-2.3.)

CHAPTER 3

VOCATIONAL EDUCATION SERVING NATIVE AMERICANS

INTRODUCTION

The federal interest in improving opportunities in vocational education extends beyond the focus on "special population students" within the regular public school system. Since 1974, federal vocational education legislation has included separate funding for one of this country's most disadvantaged groups, Native Americans. The mandate of the 1990 Perkins Act for the National Assessment includes an examination of "the effect of this Act on State and **tribal** administration of vocational education programs and on local vocational education practices, including the capacity of State, **tribal** and local vocational education systems to address the priorities identified in this Act" and "expenditures at the Federal, State, **tribal** and local levels to address program improvement in vocational education, including the impact of Federal allocation requirements . . . on the delivery of services."[1] We review these tribal issues in this chapter.

The 1990 Perkins Act contains two sources of funds for specific Native American vocational education programs. In Section 103, the Act designates 1.25 percent of the total federal allocation to support vocational education programs administered by a federally recognized Indian tribe or by schools funded by the Bureau of Indian Affairs (BIA, of the U.S. Department of the Interior).[2] In 1991–92, this section was funded at $11,104,009, which provided grants to 38 tribes. These grants are intended to improve the vocational education programs and offerings available to Indian tribes, by permitting them "to plan, conduct, and administer programs or portions of programs authorized by and consistent with the purposes of" the Perkins Act.[3] The 1990 Act for the first time gives priority to grant applications that coordinate with tribal economic development plans and to those from tribally controlled community colleges, and requires that the grant proposal include a local needs assessment.[4]

The 1990 Perkins Act also includes a new authorization (Section 382) for funds for improving and expanding the physical resources of the two accredited, tribally controlled vocational institutes. This report does not examine these grants. (A recent study of these institutes is cited in endnote 15.)

In this chapter, we provide summary data on the 38 tribal institutions that received Section 103 funds in 1991, and the findings from case studies of five of these funded sites. But first we provide some background. Vocational education for Native Americans needs to be understood in the context of all Native American education, which in turn operates within the context of Native American life. We thus begin with a review of the characteristics of the Native

American population and the history of the federal government's role in educating them.

THE NATIVE AMERICAN POPULATION[5]

Native Americans are a highly diverse group, speaking about 200 languages and dialects, living in rural and urban areas across the country, and encompassing a wide variety of traditional ways of life. But they are bound by a common heritage shared by most indigenous peoples, including a history of abuse and neglect, and impoverished living conditions.

Population Size and Locale

Native Americans, a group including American Indians, Eskimos, and Aleuts, number almost two million, or .8 percent of the U.S. population. They include 542 tribes, 314 of which are federally recognized (and thus eligible for federal funds). Just over half of all Native Americans belong to one of the ten largest Indian tribes, with the two largest — the Cherokee and Navajo — accounting for one quarter of all Native Americans (see Table 3.1).

About one-third (34%) of Native Americans live on reservations or trust lands,[6] while two-thirds (66%) live elsewhere, typically in urban areas. As we discuss later, there can be a harsh trade-off in the decision to live on- or off-reservation. Living on the reservation is typically valued for its cultural and family ties, but often this choice requires forfeiting the greater economic opportunities provided off the reservation.

From 1950 to 1990, U.S. Census data showed marked growth in the Native American population, mainly because of an increased propensity for individuals to self-identify as Native American, as well as better cen 's counting procedures. Nonetheless, because of a high fertility rate (one-third higher than the general population), the Native American population is relatively young and fast growing.

Educational Delivery System

Today, most Native American students are enrolled in the public school system. About 85 percent of Native American K–12 students attend public schools, while 10 percent attend federally funded BIA schools and 5 percent attend private schools.[7]

Public schools also serve over half of the Native American students living on reservations and trust lands. For these students, the educational delivery system varies by tribe. The size of the reservation, its proximity to other population centers, and its historical development largely determine current delivery options. On-reservation schools can include regular public schools, as well as

Table 3.1
Ten Largest Native American Tribes, 1990

Tribe	Population (In Thousands)	Percent of All Native Americans
Cherokee	308	15.7
Navajo	219	11.2
Chippewa	104	5.3
Sioux	103	5.3
Choctaw	82	4.2
Pueblo	53	2.7
Apache	50	2.6
Iroquois	49	2.5
Lumbee	48	2.4
Creek	44	2.2
Total	1,060	54.1

Source: Blood and Burnham (1994)

private (usually religious) schools and BIA-funded schools. Those on less isolated tribal lands may also have access to off-reservation public schools. Tribal control over public K–12 schools is usually quite limited, although almost half of the BIA schools are currently under some degree of tribal control.

At the postsecondary level, the federal government has attempted to increase educational opportunities for Native Americans on reservations by funding a number of postsecondary institutions on or near these sites. As a result, the BIA now funds 24 tribally controlled postsecondary institutions, including 2 vocational institutes, 18 community colleges, and 4 four-year colleges. About 14 percent of all Native American postsecondary students attend these tribally controlled institutions. (An additional five U.S. colleges and two Canadian colleges also serve Indian tribes.)

Socioeconomic Background

The Native American population is one of the most disadvantaged and disenfranchised in American society. On virtually every indicator available, they rank at or near the bottom compared to other ethnic/racial groups. For example,

Native Americans have the highest unemployment rates, and along with Blacks, the lowest family incomes and highest percentages of people living below the poverty level (see Figures 3.1 and 3.2). One of the most distressing statistics is that almost half of young Native American children live in poverty.

Native Americans also have the most severe health problems of all U.S. groups, including the shortest life expectancy and highest infant mortality rate. Native Americans die from heart disease at double the national rate, and from alcoholism at ten times the national rate.[8] In addition, their suicide rate is about 1.5 times higher than that for all other groups. On some reservations, the suicide rate is ten times the rate for Americans in general.

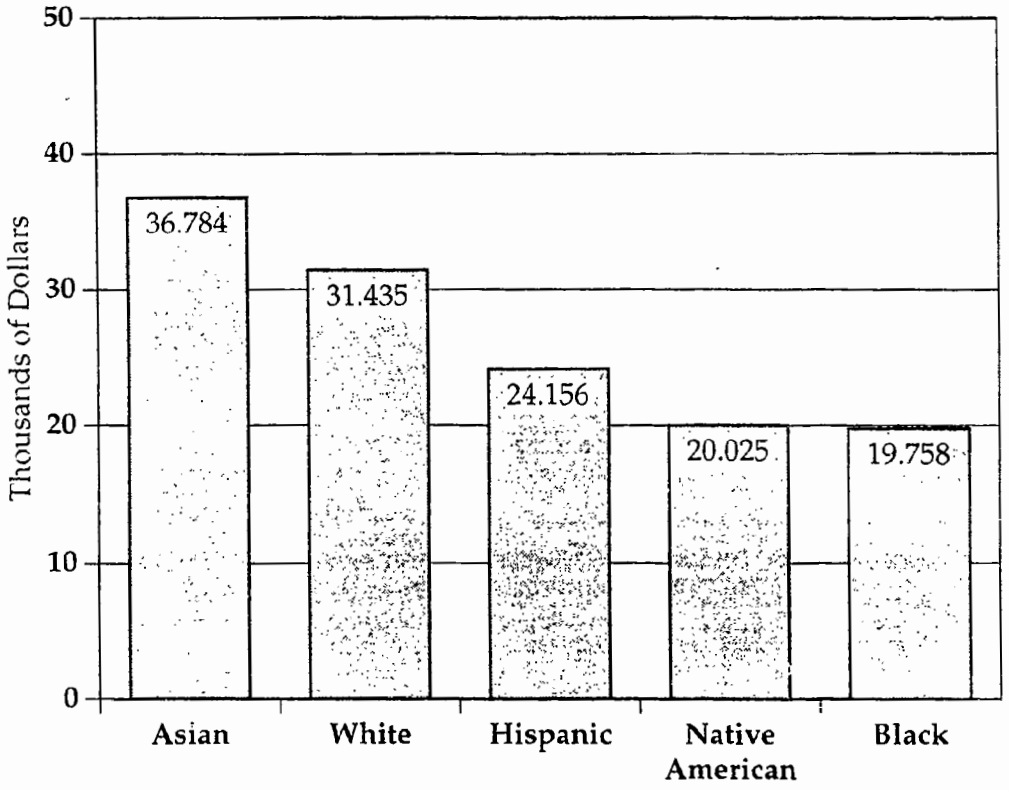
As Figure 3.3 shows, Native Americans' educational attainment rates are also well below those for whites and Asians. While about 78 percent of adults in the latter groups have high school diplomas, only 66 percent of Native Americans do, a rate about equivalent to that for blacks, although better than that for Hispanics. (The lower rate for Hispanics probably results from the low educational attainment of immigrants.) Native Americans also have the highest school dropout rates, so it is not surprising that they (along with Hispanics) have the lowest postsecondary attainment rates; only 9 percent of adult Native Americans have at least a bachelor's degree, compared to 21 percent of whites and 11 percent of blacks.

Native Americans on Reservations

In general, living conditions are worse for the 34 percent of Native Americans who live on reservations and trust lands, where physical and social isolation, as well as a lack of infrastructure, natural resources, and agricultural potential, makes economic development difficult at best. On the ten largest reservations and trust lands, unemployment rates average 26 percent (versus 15% for Native Americans in general), and poverty rates range from 49 percent to 67 percent (versus 31%). Education levels are also lower, with only 54 percent of adults on reservations and trust lands having earned a high school diploma (versus 66%).

These indicators only hint at the underlying problems and tensions that keep Native Americans on reservations from pursuing educational opportunities. For example, access to schools with adequate staffing, facilities, and resources is still an issue for many Native American students. For some, school attendance requires separation from their families in boarding schools; for others, regular attendance is limited by poor road conditions and inadequate transportation systems.

Figure 3.1
Median Household Income, by Race/Ethnicity

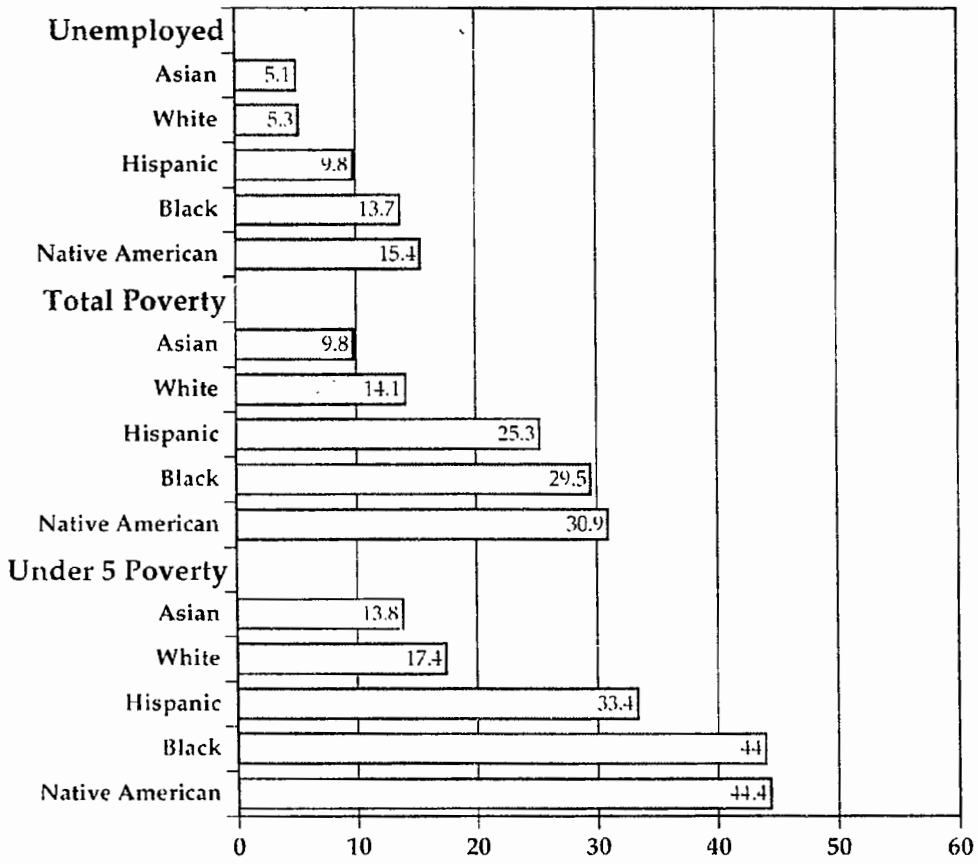


Source: U.S. Bureau of the Census, 1990

More endemic problems are also common. For example, Native American children have an exceptionally high incidence of learning disabilities; in 1987, more than half of the children living on reservations were classified by the BIA as learning disabled. Many factors contribute to this problem, including teen-age pregnancy and single motherhood, and alcohol and other drug abuse by pregnant women. Teen pregnancy also contributes to the dropout problem, as school-age mothers seldom continue in school. Further, among many tribes English is a second language, and the inability to speak English serves as a deterrent to education and employability.

At the root of many educational (as well as other) problems in Native American society are issues of cultural and racial identity. Given an Anglo-Native American history that includes wars, massacres, forced internment, and forced assimilation, it is not surprising that they should currently feel ambivalent toward the dominant culture. To this day, Native Americans often perceive the

Figure 3.2
Percent Unemployed and Percent Living Below Poverty Level (Total Population and Those Under 5 Years of Age), by Race/Ethnicity

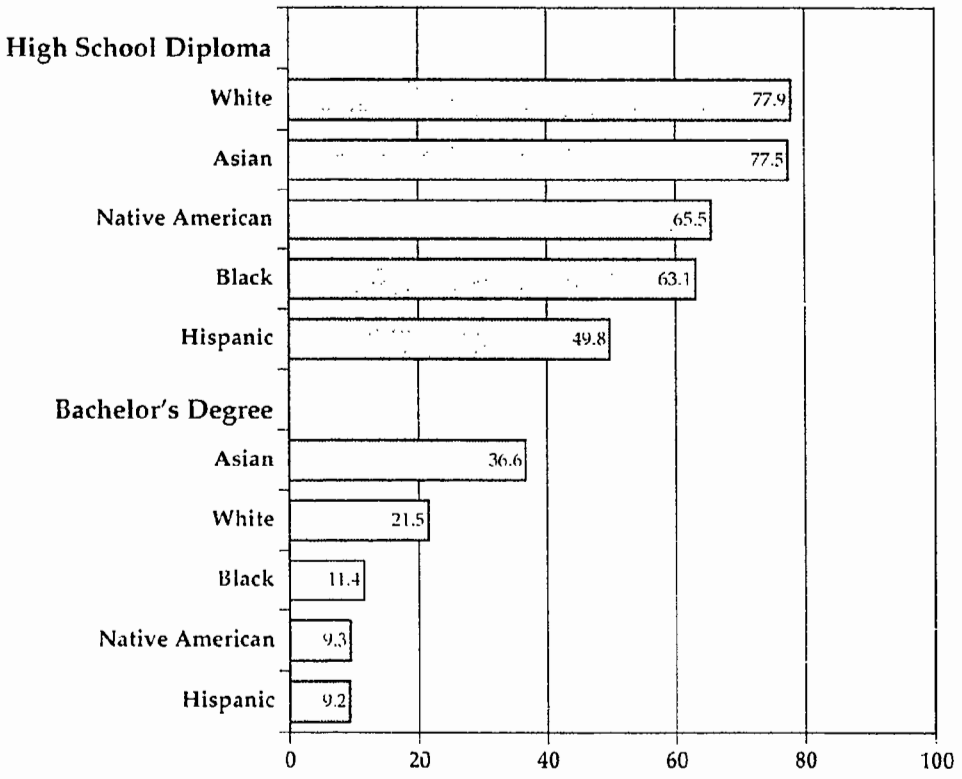


Source: U.S. Bureau of the Census, 1990

Anglo world, including its educational system, as alien, or even hostile, to Native American culture and values. It is not clear exactly how deep or widespread these feelings are; however, as we will see later, they do appear to be an additional factor that can limit educational attainment.

In addition, Native Americans do not always perceive education to be relevant to their lives. Some tribes still maintain traditional occupational patterns, in areas (such as fishing or shepherding) for which formal education is (perceived as) incidental to success. Local economies affect perceptions of education in other ways as well. On reservations near other labor markets, tribal members can often continue to live on the reservation while working elsewhere; in this case,

Figure 3.3
ercent of Adults With at Least a High School Diploma, and With at Least a Bachelor's Degree, by Race/Ethnicity



Source: U.S. Bureau of the Census, 1990

education can have real value. But on physically isolated reservations, education is a threat to the survival of reservation life, as it provides the ticket out. Tribal elders — tribes' political and religious leaders — may fight education and other nontraditional influences in an effort to maintain their tribes' spiritual, cultural, and physical identity, as well as their own power base.

Nonetheless, outmigration rates are increasing, as on-reservation job opportunities remain limited. Those who choose to leave must overcome or ignore not only their own and their tribes' traditional values, but also the apathy and other inhibiting social conditions endemic on most reservations (drug abuse, teen pregnancy, etc.). Combined, these forces work to keep most individuals on the reservations, in spite of their more limited opportunities.

Economic self-sufficiency for tribal reservations is widely regarded as the solution to these problems. Recent efforts to foster self-sufficiency have had some success, but in general tribal economies are still struggling. For example, up to 85 cents of every dollar generated on-reservation is spent off-reservation. In spite of recent growth in Native American-owned businesses, one quarter of all jobs on reservations are staffed by non-Natives, and up to half of full-time reservation jobs are federally funded.

HISTORY OF THE FEDERAL ROLE IN NATIVE AMERICAN EDUCATION[9]

Originally, the federal government assumed full responsibility for the education of Native Americans, as their isolation on tax-exempt reservations provided states and localities with a rationale to withhold education (as well as other publicly supported) services. In the 1800s, the federal government focused on two efforts to use education to "civilize" Native Americans. First, the government supported missionary education through various religious groups; their goal was to christianize Native Americans, while also providing them with basic literacy skills and, in some cases, basic husbandry skills. Some of the mission schools that were established on reservations during this period still operate today, although as part of a more diverse education system.

The federal government's second effort focused on schools run by the BIA. By 1900, the BIA had established 20 industrial training schools, providing instruction in basic literacy and husbandry. The acknowledged goal of these schools was to "take the Indian out of the Indians." To help meet this goal, the training schools operated as off-reservation boarding schools, separating youth from the "negative" influences of their families and tribes. According to one historian, "the underlying intention of this policy of relocation was to assimilate Native Americans into the dominant culture. Children were placed in boarding schools in the early primary grades, and the schools were notorious in their attempts to eradicate any vestiges of traditional Indian cultures."[10]

After the turn of the century, acceptance of Native American cultures was espoused by anthropologists and reformers, and, through their efforts, by policymakers. This new view culminated in the 1928 Meriam report, which was harshly critical of the ethnocentric indoctrination methods used by the boarding schools. Relatively rapid and major changes followed in the philosophy and practice of Indian education. Within five years, 12 boarding schools were closed or converted to day schools; curricula began to include information on Native American culture. Efforts to reform Native American education were assisted by a Congressional study that revealed the deplorable living conditions on reservations; this study led to the passage of the 1934 Indian Reorganization Act.

It was in the Indian Reorganization Act that the federal government first promulgated the notion of "self-determination" for Native Americans. The act increased tribal self-government and input into education, encouraged cultural

and religious pluralism, and supported economic development for reservations. Native American teachers were actively sought and trained, textbooks were published in Native American languages, and "community" schools, designed to serve multiple tribal needs, became the new focus of the BIA's education efforts.

This period of cultural acceptance was relatively short lived. Federal resources and attention dwindled during the Depression and World War II, and this inattention was followed by a second period focusing on forced assimilation. In the 1950s and 1960s, known as the Termination Era, the government reverted to the philosophy that Native Americans should be encouraged to integrate into the larger society. Financial support for 100 tribes was ended, a number of reservations were eliminated, and a federal relocation program was implemented to move Native Americans to urban centers. The effects of this policy were marked: "The majority of Native Americans who left the reservations became part of the undereducated, working poor — those engaged in part-time or lower paid manual labor. Many of these people . . . left the reservations but returned, unable to cope with urban life. The failure of so many Native Americans to adapt outside the reservation hastened the end of the termination policy."[11]

The civil rights movement of the 1960s also helped end the Termination Era, as the rights of minorities, including Native Americans, were enforced with new legislation. In 1970, the Nixon administration returned federal policy to one of self-determination for Native Americans. Although the 1972 Indian Education Act provided funds for adding Indian history and culture to educational programs, the larger focus of this new federal effort was to shift administrative responsibilities to tribes, rather than to increase funding. Thus, in 1975, the Indian Self-Determination and Education Assistance Act became the first of a series of laws that shift federal administrative responsibilities to tribal leaders. As a result of these efforts, today about 40 percent of BIA funds are contracted to tribes.

One of the more important steps toward fostering Native American self-determination came in 1978 with the passage of the Tribally Controlled Community College Act. Today, 24 tribally run postsecondary institutions are funded through this program, enrolling over 18,000 students. These schools "share a commitment to cultural understanding, preservation, and tribal development. Curricula at these colleges differ according to the unique needs of each tribe. These institutions act as a bridge between the Indian world and the dominant society."[12]

Other federal legislation also sought to address long-standing educational needs in the Native American community. For example, the 1978 amendments to the Bilingual Education Act provided funds for limited-English-speaking Native American students, and the 1978 amendments to the Rehabilitation Act of 1973 established grants to tribes to fund up to 90 percent of the cost of vocational services for the disabled.

The Indian Self-Determination Act also stressed the importance of economic development on reservations. As this emphasis has grown, more attention has been paid to education's link to economic development. More vocational education programs have become linked to tribal economic development plans, and to the development of Native American-owned businesses. Largely because of these efforts, from 1982 to 1987 Native American-owned businesses increased by 64 percent.

In spite of these real and important accomplishments, federal assistance continues to be insufficient, inconsistent, and misguided. For example, in constant dollars, federal funding for Native American education has declined from 1975 to 1994, and has lagged behind that for education in general. Over this time, there has been "a fairly steady and upward trend in constant dollar funding for the [U.S.] Department of Education; a long downward trend in funding, with a late recovery beginning in 1990 for the Bureau of Indian Affairs; and a long-term downward trend in funding for the Office of Indian Education in the Department of Education."[13]

This is in spite of continued evidence of acute educational needs among Native Americans and of inappropriate federal efforts:

> In 1989, a U.S. senate Special Committee on Investigations concluded that paternalistic federal control over Native Americans continued and that bureaucratic initiatives continued to be characterized by red tape and mismanagement. Supporting this view was the 1991 audit of Bureau of Indian Affairs schools by the Department of the Interior's Office of the Inspector General. The audit . . . concluded that the physical conditions of a number of the schools inspected was "so deplorable as to impede the education process."[14]

A recent Perkins-funded study of the facilities of the two tribal vocational institutes also found overcrowding, unsafe buildings, outdated equipment, and insufficient classroom and administrative space at both sites.[15]

The 24 postsecondary institutions authorized under the Tribally Controlled Community College Act are widely acknowledged to be underfunded (although funding levels have increased in recent years). These community colleges rely predominantly on federal funding. But while the original federal authorization called for appropriations of $4,000 per student (and has risen since then), actual appropriations have fluctuated between about $2,000–$3,000 per student. In 1993, tribally controlled colleges received federal appropriations of $2,974 per student, a 54 percent increase from a low of $1,927 in 1989. In contrast, the 1989–90 local, state, and federal appropriations for public two-year institutions were $3,415 per

student, 15 percent higher than the 1993 appropriations for tribal colleges (and 77% higher than their 1989 appropriations).[16]

Finally, federal funds for Native American education are also widely fragmented, with relatively small pools of funds coming from a wide range of programs within the Bureau of Indian Affairs and the Department of Education, and funds sometimes being directed from one federal agency to another. Apparently in recognition of the difficulty of creating meaningful change under these conditions, the Congress recently passed the Indian Employment, Training, and Related Services Demonstration Act, which allows tribes to consolidate federal employment and training funds into one tribally managed program. It remains to be seen how effective this Act is, since barriers to effective coordination can arise from a variety of sources that are more or less amenable to this type of solution.

It is against this backdrop that in 1991 the Perkins Act provided $11 million for vocational education programs run by tribal organizations. We now examine these programs.

PERKINS SECTION 103 FUNDING AND PROGRAMS

Funding History

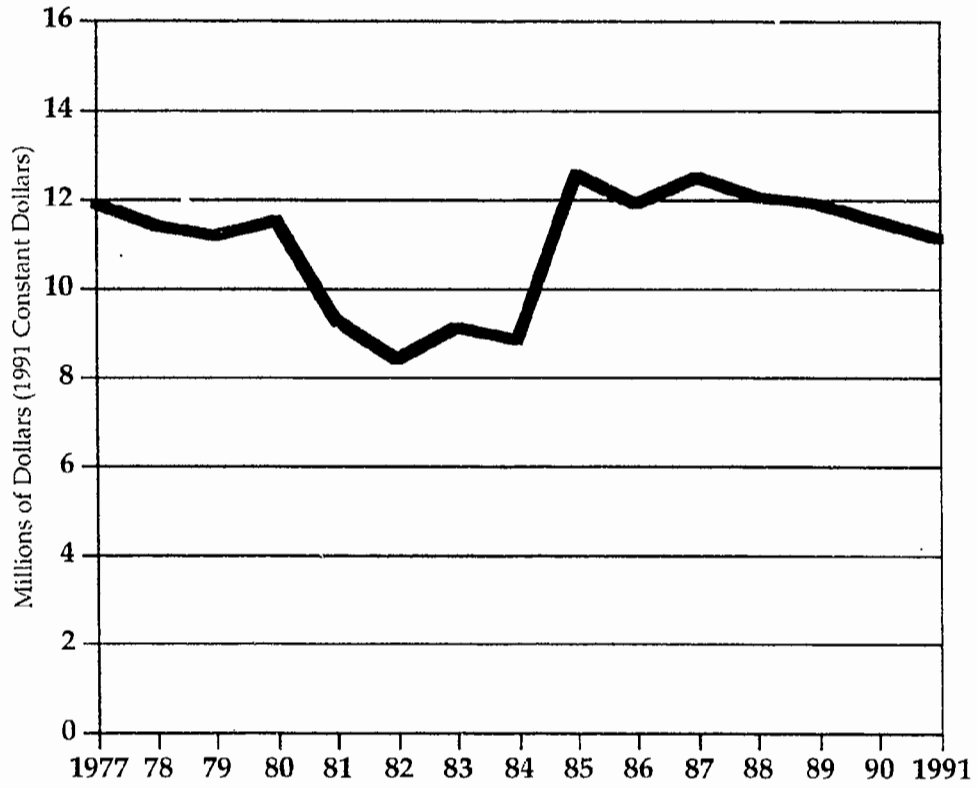
Perkins funding for tribal vocational education programs has been available since 1977, although funding levels have varied markedly (see Figure 3.4). While the general trend has been downward (in constant dollars), funding levels declined dramatically in the early 1980s and made an equally dramatic recovery in the mid-1980s. Since 1987, however, funds have been declining in real dollars, with 1991 funding levels the lowest since 1984, and lower than the original appropriation in 1977.

Current Grant Awards

Funds for tribally run vocational education programs are awarded through 1–3 year discretionary, competitive grants. The competition appears to be fairly keen; in each year that awards have been made, an average of 24 percent of applicants have received an award. In 1991, the first year of awards under the 1990 Perkins Act, 23 percent of applicants received an award, with 25 awards made to previously funded sites, and 13 awards to newly funded sites. Information on these 38 grant sites is provided in Table A-3.1, and is summarized below.

Funded sites are located in 16 states and all regions of the country. The geographic distribution of funded sites follows the distribution of Native American tribes, with most located in the Western states and in rural areas, usually isolated rural areas. These programs serve a total of almost 5,000 students with an average appropriation of $745 per student per year.

Figure 3.4
Appropriations for Perkins Tribal Vocational Education (Section 103) Funds, 1977–1991



Source: U.S. Department of Education, Office of Vocational and Adult Education

Of the 38 funded programs, most target postsecondary students and adults; only seven target secondary students. This may seem counterintuitive, given the low education attainment levels of Native Americans. However, nearly all of the funded programs are on reservations where the most critical needs are to reduce adult unemployment and to provide the adult community with job skills. Adult and postsecondary programs address these problems better than do secondary programs, and are the programs of choice for that reason. (The Section 103 funding priority given to tribally controlled community colleges may also increase the focus on postsecondary and adult education.)

Funded vocational education programs cover a wide range of occupational areas. They tend to focus on those in high-demand fields on or near reservations, such as hospitality, fisheries/marine science, secretarial science, and accounting. Basic

skills instruction and pre-employment skills are also stressed in many programs. Finally, in an effort to increase tribal self-sufficiency, many programs also focus on preparing individuals to manage their own businesses, through small business management or entrepreneurial training. We will see in the case studies that coordination with tribes' economic development plans is often strong, and appears to be key to program acceptance and success. We now take a closer look at five of these Perkins-funded programs.

THE CASE STUDIES

The National Assessment conducted case studies of five of the 38 Perkins-funded tribal sites from November 1992 to March 1993. The five sites were selected to represent a cross-section of sites along the following dimensions: educational level, number of tribes served (one or multiple), region of the country, and locale (urban, suburban, rural). (The Technical Appendix describes the site selection process in more detail.) It can be risky to generalize from a sample as small as five sites, but the consistency of much of what was found in these sites, in combination with the informed opinions of many tribal and other knowledgeable staff suggest that generalizations on the issues discussed below can be made with a high degree of confidence.

We begin with a brief overview of each case study site and a short description of each site's Perkins-funded program. We then summarize the findings from these case study sites related to program goals; the population served; programs' relation to the local labor market and other measures of program success; and factors that affect program success. Finally, we conclude with recommendations for federal policymakers.

Overview of Case Study Sites

The following summaries are based on individual case study reports and on a case study summary report.[17] The case study sites have been given pseudonyms to protect their anonymity. All other information about each site is factual.

Sonesta Indian College

The Sonesta reservation is located in a well-populated suburban area within a 20-minute drive of an urban center. The Sonesta Indian tribe includes 4,500 individuals living on or near the reservation, but a total of ten local tribes, including about 12,000 individuals, are part of a consortium served by Sonesta Indian College. The local Native American and Anglo populations are fairly well integrated; only about half of the Sonesta reservation population is Native American.

The local economy is heavily oriented toward natural resources, primarily fishing, lumber, and oil. Tourism is also strong, providing many service and

retail jobs. There are over 250,000 marina boat slips in the area, providing another major source of jobs related to boat repair and maintenance. In general, the local economy is fairly strong and growing. The area has had rapid population growth in the past ten years.

The Sonesta and other local tribes have traditionally made their living by fishing, a seasonal occupation that results in unemployment rates of 50–70 percent during the off-season. The Sonestas have taken a number of steps to increase job opportunities for tribal members. In 1991 the tribe opened a gambling casino, which is now the largest single employer in the area. The tribe also owns a fish processing plant and plans to build a commercial marina.

In spite of the growing regional economy, Sonesta Indians continue to lag economically. In 1989, the per capita income on the Sonesta reservation was $10,684, but for Native Americans living on the reservation, it was $5,446.

The school dropout problem is quite severe among Native Americans in this area. Among Native American students who enter the local public schools, only 25–35 percent graduate from high school. Further, of those who drop out, it is estimated that 75 percent never re-enter school to complete their education. The dropout problem is especially severe among boys, who often leave school to work in the fishing or forestry industries. Unfortunately, these jobs provide only seasonal employment, and forestry jobs are on the decline.

In response to the tribes' dropout and unemployment problems, the Sonesta Indian College developed a Perkins-funded program to provide dropouts — male dropouts in particular — with job skills in areas where tribal and local economies are growing. The program includes vocational programs in marine trades, building/construction trades, accounting, and data processing. At the time of the case study, this Perkins program enrolled 61 students, all high school dropouts. Students are encouraged to complete 20 units of basic skills training before enrolling in vocational courses, although exceptions are made for some male students in high-risk groups (a controversial decision).

Pokamoke Indian Reservation

The Pokamoke Indian reservation is located in a rural area of forests and agricultural land covering an eight-county area, and including 5,400 of the 6,000 members of the Pokamoke Indian tribe. A medium-sized city is located within driving distance of the reservation, and the nearest large population center is 90 miles away.

The local economy has been slowly shifting from agriculture to manufacturing, although forest products are still the predominant economic product. Manufacturing has grown significantly during the past decade, as has the service sector. The area has been experiencing moderate job growth.

The Pokamoke tribe has been a major force in local economic expansion, and is currently the largest single employer in the region. As a result of incentives to attract companies to the reservation, the tribe now employs 1,500 people in on-reservation manufacturing facilities, and hundreds more in a construction company, printing company, wood products company, nursing home, horticultural businesses, and a local shopping center. In the face of growing competition, the manufacturing plants plan to shift to computerized manufacturing processes. This shift will create an additional need for retraining, as well as new training, for plant workers.

This growth in the on-reservation economy has improved the employment and economic status of the Pokamoke Indians, but they are still at a relative disadvantage. For example, while the local region has a median family income of $17,800, the reservation's median income is $11,400. Per capita income is $9,864 in the local area; for tribal members, it is $3,048.

Until 1964, the Pokamoke tribe had been statutorily prohibited from attending local public schools, and had no access to secondary schools. As a result, there are few educated adults in the community, and little value is placed on education in Pokamoke homes. A lack of interest in education, high graduation standards, and high teen pregnancy rates all contribute to relatively high dropout rates (about 50%). Forty-five percent of school-age girls become single mothers, and few of them remain in school. By high school, many students are years behind grade level, which creates a further incentive to leave school. The case study researchers noted that "some of these older students . . . drop out deliberately in order to enroll in the tribe's [Perkins-funded] Vocational Education Program, where they can receive their GED certificate without the social stigma of being 'behind'."

The tribe is taking a number of steps to reduce its dropout rate. Meanwhile, it also needs a qualified workforce for the expanding job opportunities on and near the reservation. Because unemployment and low income levels remain a problem, the tribe has focused its Perkins-funded Vocational Education Program on training unemployed tribal members for jobs being created on the reservation.

At the time of the case study, the Pokamoke Vocational Education Program enrolled 51 high school dropouts and adult students in programs in manufacturing skill training, automated manufacturing technology, business technology, nursing, dental assisting, and child care. The program uses local community college personnel as training providers; most courses are offered on the reservation, but a few (in allied health) are offered only at local off-reservation community colleges. Students who complete the program receive a vocational certificate.

Fort Bidwell Community College

The Fort Bidwell band of Seekonk Indians live on an isolated rural reservation. About 11,300 Seekonk Indians live on or near the reservation, with another 14,000 living outside this area. The area around the reservation is sparsely populated; the five-county area surrounding it includes only 50,000 people. Three other reservations are located with 300 miles of the Fort Bidwell reservation. These reservations belong to another Indian nation, with whom the Seekonks cooperate for educational purposes, in spite of historical tensions.

The economy of the general area is largely agricultural, and has been in economic decline for 40 years. Manufacturing has replaced some of the lost agricultural jobs, but recent plant layoffs have produced further economic setbacks. Job growth is not expected in the future; in fact, further declines in agricultural jobs are expected.

The reservation's economy is based mainly on manufacturing, service industries, and tribal government. (The tribe lost most of its agricultural land in an earlier land cession.) The tribe has used economic incentives to attract businesses to its industrial park (it operates two manufacturing plants), and has established a small shopping mall. However, these manufacturing jobs on the reservation are not expected to increase, in part because the largest on-reservation plant is a defense contractor. Nonetheless, the 2,000 jobs available on the reservation make it the largest source of jobs in the local area.

To improve the tribe's standard of living, the reservation plans to open a casino, hotel, restaurant, and campgrounds. The tribe's hopes for a strong tourist industry are tempered by competition from other tribes, as well as from the possibility that the state will legalize gambling.

Because so few jobs are available on or near the reservation, outmigration has been relatively high. The case study researchers report that "from 1988 to 1992, the reservation lost 25 percent of its population between the ages of 20 and 35 due to limited job opportunities. Not surprisingly, tribal members who migrated to other areas . . . were individuals who had the most training and skills necessary to obtain a job."

Limited jobs also mean poor living conditions. Of more than 1,000 counties in the country, the county encompassing the Fort Bidwell reservation is the 48th poorest. Fully 61 percent of reservation families live below the poverty level. The unemployment rate on the reservation is 31 percent, compared to 12 percent in the local county and 5 percent in the state.

Educational attainment is also low. The high school dropout rate is about 45 percent, and 75 percent of all high school dropouts are boys. The high dropout rate for males partially explains why postsecondary enrollments at Fort Bidwell

Community College have been heavily female (over 70%), an imbalance the school is trying to remedy.

Fort Bidwell Community College's Perkins-funded vocational program is targeted on tribal members, particularly males, who need job skills. Although tribal leaders would like this program to provide training for local jobs, the lack of jobs makes this difficult. As a result, the program also focuses on drawing students back to school simply to improve their life and employability skills.

The Perkins-funded programs include the following five vocational program areas: building trades; welding; early childhood education; office education; and medical recordkeeping. The building trades and welding programs are specifically designed to attract males back to school, in addition to meeting the tribe's projected demand for construction workers. About 75 students were enrolled in these Perkins-funded programs at the time of the case study.

River Island Indian Nation

The River Island Indian Nation is a small tribe of about 2,000 individuals. The River Island reservation is in a rural area, but is near other population centers, including a city of 50,000. Because of limited housing, only about one quarter of the tribe live on the reservation, with most of the remainder living within a 50-mile radius. Most River Island Indians prefer living on the reservation, and move there as housing becomes available. The reservation and nonreservation populations are well integrated, with individuals working and living in both locations.

The local economy's limited manufacturing base has been declining in recent years; the decline in this area has been larger than that for the state as a whole. The local labor market is dominated by small businesses in transportation and utilities, wholesale and retail trade, and service industries. Unemployment rates in the counties around the reservation have ranged between 8–9 percent.

The River Island community has even more depressed economic conditions. The reservation unemployment rate is almost 14 percent, with higher rates for tribal members living off the reservation. Underemployment is also a problem; one-third of the reservation workforce is employed in jobs providing less than full-time, full-year employment. This labor pattern results partly from the concentration of tribal members in seasonal construction jobs, as well as in low-paying retail and service sector jobs.

The concentration of tribal members in low-wage jobs is reflected in low income levels. While fewer than 10 percent of families in the local area live below the poverty level, more than 30 percent of reservation families live in poverty. The median income for reservation families is about 48 percent of the median family income for the surrounding county. Family poverty is exacerbated by a lack of

family structure; more than one-third of reservation families are headed by single mothers.

Dropout rates are not available for the River Island community, but other indicators suggest that these rates are high. For example, standardized test scores for grade K–8 students on the reservation are among the lowest in the state. Nonetheless, because of recent efforts to reduce high school dropout rates and a high rate of GED completion, the high school completion rate for tribal members (including GEDs) is almost equal to that for other community residents (77% versus 79%).

While a substantial number of secondary and postsecondary schools are available in the area surrounding the River Island reservation, the tribe felt that these institutions were not meeting the needs of tribal members in the areas of GED completion, job skills upgrading, and small business development. To meet these needs, the tribe uses Perkins funds to operate a Learning Center. This center, operating within a tribal administration building, is not affiliated with any local education institutions. The Learning Center provides self-paced, individualized instructional programs leading to a GED, or for those who need skill upgrading, office and computer skill competencies. At the time of the case study, the Learning Center served about 10–20 students each day. Most students are unemployed adults.

A second component of the Perkins program provides workshops designed to improve tribal members' job skills in areas where tribal demand is greatest. Workshops have been conducted in the use of computers, office skills, marketing, day care management, communications skills, and business ownership. A third component assists tribal members in starting their own businesses by providing individual consulting services to those who run or are thinking of running their own company. Finally, the program also offers financial aid, career counseling, and other counseling services for postsecondary students.

Natoma Indian School

The Natoma Indian tribe is one of the largest in the country, with about 200,000 members. About 80 percent of tribal members live on the large Natoma reservation, located in a remote rural area. Tribal members live in sheep camps formed by extended family units (clans), a traditional lifestyle that precludes the development of large population centers. The reservation has a poor infrastructure, with hundreds of miles of unpaved roads, and no indoor plumbing, running water, or electricity in over half the homes.

The reservation's economy is based largely on the Natoma tradition of subsistence shepherding. There are few other job opportunities on the Natoma reservation or in the local area. Paying jobs on the reservation are mainly limited to tribal government, education and health facilities, and three motels. There are

about 600 other reservation jobs in utilities/transportation, wholesale and retail trade, and service industries. The unemployment rate is about 35 percent, although the tribe provides a higher estimate of 50 percent if those who have given up looking for work are also counted. (The other case study sites reported similar adjustments to official unemployment rates.)

High school completion rates are comparable to those of most other tribes. A recent study found that 55 percent of school-aged Natoma children had dropped out of school or were not attending often enough to graduate. Among this tribe, three relatively unique factors contribute to the dropout problem. First, school attendance is limited by the poor conditions of the roads, which are impassable during winter storms. Second, parents, who typically see little value in education, keep their children home from school during lambing season. Third, parents frequently move their children from one of the many reservation schools to another, a further impediment to student success.

This tribe's Perkins grant recipient is the Natoma Indian School, a K–12 boarding and day school located in an exceptionally poor section of the reservation. In the local area surrounding the school, tribal estimates of unemployment are 59 percent, and the school and a trading post are the only employers.

The Natoma Indian school is funded by the BIA and administered by the tribe. It enrolls 500–600 students at the beginning of the school year, but enrollments dwindle to about 350 by mid-year. Until recently, the school's curriculum was "college preparatory," in spite of a lowly 2 percent postsecondary attendance rate among graduates.

The school has used its Perkins grant to add several vocational offerings to its curriculum. These courses are available for regular high school students and for adults, who can take coursework to receive a GED certificate and vocational training. The vocational program includes courses in construction and welding, building maintenance, heating and air conditioning (under development), hospitality management, and life and job-seeking skills. At the time of the case study, the program enrolled about 45 students, both school-age and adults, with most enrolled in the construction trades programs.

The Natoma school's program also includes a small work experience component for students training in hospitality. This program has generated ill-feelings among some tribal members, who resent having jobs made available for students when so many unemployed adults are in need of jobs to support their families.

Case Study Findings

Interviews with tribal leaders, local employers, and school administrators, staff, and students provided information on program goals, programs' success in reaching their goals, and factors that limit success.

Program Goals

While administrators in "regular" public schools tend to list a variety of goals for their vocational education programs, administrators at these case study sites tend to have a few, clearly specified goals for their programs. These programs are designed to tackle the related problems of high dropout and high unemployment rates. As such, the primary goal of every program is to make tribal members more employable by improving their basic skills and/or job-related skills. Improving tribal members' basic skills typically means providing them with a high school diploma or GED certificate, so that students acquire both basic academic skills and the credential needed to back these skills. For job skills, programs target their efforts on those skills required by existing or emerging jobs on or near their reservations, an important criterion discussed in more detail below.

Some sites also have other important goals for their Perkins programs. Two sites, for example, focus on reducing dropout and unemployment rates among males, since these problems tend to be larger among this group. In some cases, this goal may be at odds with the goal of providing training in available job areas; one of the features of many tribal economies is that most of the available full-time, full-year jobs are for traditionally "female" occupations, such as secretaries, nurses' aides, child care workers, and other service-industry positions.

Some programs also strive to foster tribal culture and values. One program, for example, stresses bilingual education as part of its tribe's commitment "that every student who progresses through the school system will be thoroughly fluent, in terms of reading, writing, and speaking, in the tribal language." Another program operates within a community college in which Native American culture is incorporated into all instructional activities.

Program Success

Because the case study programs have not been implemented within an evaluative framework, it is difficult to assess their success using traditional outcome measures. However, some indicators of program success are available, and they suggest that these programs are, in general, quite effective at meeting their goals.

Perkins-funded programs at case study sites were almost universally popular among tribal leaders, other tribal members, students, and local employers. Tribal leaders see these programs as important elements in their efforts to improve tribal living conditions, and value them for their role in this process. Tribal members also take pride in the fact that the programs are their own — that they are tribally developed and administered.

Students' comments suggest that Perkins-funded programs often fill a niche that other programs cannot fill. The program serving the Pokamoke tribe is typical in this respect: "Tribal members appear to prefer the tribal Vocational Education Program over programs offered by local nontribal public schools, because of greater physical access, financial incentives offered by the tribe, and the convenience of studying at an institution that is located on the reservation. Many students also feel more comfortable in the more familiar environment of the tribal community." In general, one of the most valued aspects of these programs is their focus on tribal needs, values, and goals; they help build a sense of community.

Individual attention also contributes to program success. At many programs, the teacher-student ratio is less than ten to one. The River Island program uses an individualized, self-paced program that is well regarded: "Several students indicated that they had taken vocational classes at the local high school; they were much more enthusiastic about the self-paced learning approach — and the individualized counseling and instruction — at the Learning Center."[18]

Two tribes — the Fort Bidwell Seekonks and the Sonestas — targeted men as a particular group in need of employment training. Both tribes have been successful in their goal of luring these individuals back to school. Male enrollments have increased among both tribes' postsecondary programs in response to expanded program offerings in traditionally male fields. For example, Fort Bidwell Community College had a target of 30 percent male enrollments and, thanks to its new construction and welding programs, has met that goal.

Employer Perceptions. An important indicator of program success is the high level of satisfaction expressed by local employers. Employers who are involved with these programs tend to be very enthusiastic about their potential for providing skilled workers. More to the point, employers who had hired students from older programs indicated that they had relied on the programs to fill positions in the past, while newer programs were filling current employment needs: "At the River Island reservation, the manager of the one manufacturing facility on the reservation indicated that he could not have staffed his new operation and trained employees who had never worked in manufacturing without the [on-the-job training] program . . . At the first new motel built on the Natoma reservation, the manager expressed great satisfaction with student employees who are working at his property as part of the school's hospitality management program. He even indicated he views some of these students as potential candidates for management positions after they have moved up a career ladder with the motel chain."[19]

Student Outcomes. Other common measures of the success of vocational programs are the extent to which students complete their programs or the extent to which they obtain training-related jobs. In general, the programs' focus on local

employment needs helps them achieve relatively high job placement rates. The highest placement rates are found among those tribes whose programs have the strongest links to the local economy, as well as the strongest local economies; these tribes, the Sonesta and Pokamoke, report placement rates approaching 100 percent in many program areas. Rates are lower at other sites, but still impressive given local labor market conditions.

As discussed above, these Perkins-funded programs emphasize meeting local labor market needs and making tribal members more employable, rather than program completion. So it is perhaps not surprising (or inappropriate) that programs appear to be less successful at getting students to complete programs. In many cases, the low completion rates occur because students leave programs for training-related jobs as soon as they have the requisite skills. For example, River Island has only a 30 percent completion rate for students who have enrolled in their Learning Center high school diploma program, but "intervening employment offers" are the main reason students leave the program. At Fort Bidwell Community College, an institution within a depressed labor market, only 27 percent of the 146 students originally enrolled in their Perkins-funded program earned a completion certificate; however, 67 percent either found jobs or are continuing their education. However, as we will see below, problems with transportation, child care, and tuition costs also contribute to dropout problems.

Meeting Labor Market Needs. Another way to measure program success is to determine the extent to which reservations' job needs are being met by these tribal programs. We saw above that employers who hire program students are typically satisfied. However, there appear to be other employers — or at least one — whose needs are not being met. Most reservations have one or more Indian Health Service (IHS) hospitals. These institutions often have a shortage of trained technical personnel, including nurses, medical secretaries, and technicians. Few of the vocational programs at the case study sites (and only seven funded sites, as Table A-3.1 shows) provide training in these health-related occupations, in spite of high job demand.

The experience of those sites with training in health fields suggests that a major reason for this labor market mismatch is that too few tribal members have the requisite skills to enter health-care programs, which tend to be rigorous and selective. Some programs (such as nursing) also take many years to complete, and the individuals targeted by these programs are typically not able or willing to wait that long to begin earning an income. Finally, the training materials for these technical fields are expensive; at least one institution mentioned this cost as a barrier to program offerings in health care.

At the Pokamoke reservation, for example, the tribe provides health-care training only at local community colleges (rather than at the tribal training facility, where other programs are offered), and few students are enrolled in these programs. "The tribe's Vocational Education Prog.am is providing training for two

registered nurses and one licensed practical nurse during its current program year, numbers that fall far short of the demand at the tribe's health facility."

At Fort Bidwell — a severely underfunded tribal community college — the same problem was noted: "In terms of meeting job demand, Fort Bidwell Community College appears to be weakest in its training of students for allied health occupations. Because the public IHS hospital is being expanded, there is a rising demand for health professionals. At the present time, Fort Bidwell Community College is training 26 medical record secretaries. However, the demand is greater for personnel in other health occupations, such as respiratory care technicians, physical therapy technicians, pharmacy technicians, and vocational and registered nurses. Unfortunately, the college believes that it cannot currently expand its course offerings in the allied health occupations."

On the other hand, programs do appear to be better at meeting reservations' demands for workers in a variety of less technical fields, including construction workers, day care providers, secretaries, and hospitality workers. At the Pokamoke reservation, the tribes' manufacturing facilities also benefit from the reservation's manufacturing skills training programs (although the tribe has been unable to fill all jobs with Native Americans). In these fields, training can be accomplished more quickly and with fewer prerequisites, which makes the programs more accessible and attractive to the populations they are designed to serve.

Finally, there appears to be an additional problem at the two sites that have manufacturing jobs on their reservation. At both the Pokamoke and Fort Bidwell reservations, manufacturing facilities have high annual turnover rates (of about 30%). At Fort Bidwell, the repetitive nature of the work at the manufacturing assembly plants was given as one cause of this problem. The isolation and monotony characteristic of assembly work, which is difficult for anyone, can be more difficult for a people whose cultural traditions stress group interactions and an agrarian lifestyle. However, an additional factor seems to be difficulty in adjusting to work in general. Many tribal members come from families in which "working 9 to 5" is an entirely new experience. Concepts such as punctuality and regular attendance often have not been well ingrained. Add to that the tedious nature of assembly work, and high turnover is practically guaranteed.

One possible approach to this problem (in addition to better pre-employment training, which both the Pokamoke and Fort Bidwell tribes are working on) is to encourage the development of more "high-performance workplaces" within tribal manufacturing plants. A greater focus on working in teams, job rotations, and front-line decision-making, while increasing the conceptual skills needed by workers, can also help alleviate the tedium that can lead to retention problems.

Who Is Served

The case study programs target high school dropouts, potential dropouts, and/or adults in need of job skills. Reflecting this targeting, virtually all program enrollees meet the Perkins Act definition of special population students. Program students are usually both educationally and economically disadvantaged, and many are limited English proficient, as English is a second language for many tribes.

The River Island Learning Center, for example, serves predominantly unemployed adults, including men who have been laid off from seasonal jobs (mainly construction work). However, more than half the Learning Center students are women, and over 90 percent of these women are on public assistance. The vocational education programs at Sonesta Indian College enroll high school dropouts, 80 percent of whom are limited English speaking. Virtually all tribal members on the Fort Bidwell, Pokamoke, and Natoma reservations are limited English speaking.

Although programs do not specifically target single mothers, this is another group that is highly represented in vocational programs. For example, at Fort Bidwell Community College, 70 percent of program enrollees are women, and 85 percent of these women are single mothers. As we will see later, however, a lack of resources for child care services sometimes limits these enrollments.

Link to Economic Development

The Perkins Act requires that programs be developed in response to a needs assessment. This requirement appears to have helped focus many programs on tribes' most critical areas of job demand. Among some tribes, this link appears to be institutionalized, in the sense that tribal leaders view vocational education as a vital part of their overall tribal economic development efforts. The link between vocational education and economic development efforts can make or break a program:

> Linking vocational programs to active, ongoing economic development efforts may be one of the most critical factors affecting program success in meeting the goals of the 1990 Perkins legislation. As community members see the economic benefits of vocational education translated into actual employment and improved tribal economies, they become stronger supporters of the program and are more likely to encourage their children to participate. Through this mechanism, vocational education acquires a type of legitimacy that is difficult to achieve in any other way . . . One of the greatest challenges these tribes will face if they are to fulfill the mandates of the 1990 Perkins legislation is introducing

economic development — especially in the form of high-technology industry — while maintaining traditional culture and values.[20]

While all the case study programs target local labor market needs, they differ in the extent to which those needs arise from an economic development plan that encourages tribal self-sufficiency. Without a viable economic development plan, vocational education programs help reduce unemployment but do little to foster the ultimate goal of tribal economic independence.

The case studies present two extremes along this dimension. At one extreme, the Pokamoke tribe has been very successful in developing a manufacturing economy on the reservation, and is the leading source of job growth in its area of the state. Vocational education has been used to provide the workforce needed for the tribe's industries, and the tribe has plans to use new coursework and training to prepare the workforce for a shift to a more "high-tech" workplace, as its manufacturing facilities convert to computer-automated production methods. Although the Pokamoke tribe still has problems to overcome, this site is a strong example of how economic planning and development, combined with a focus on education and vocational training, can create a more viable tribal economy.

The Natoma tribe presents a case where economic development efforts are much more limited. On the Natoma reservation, tribal values and extreme isolation both limit economic development efforts to an expanding tourist industry. The reservation has one new motel, and four additional motels planned for the future. The tribe's vocational education program includes a hospitality program, with work experience opportunities available for four students. This is perhaps a good start for a tribe that is so isolated and lacking in basic infrastructure. However, this economic development effort is far too limited to meet tribal needs. As a result, the tribe also focuses its vocational education efforts (as do most other sites) on increasing the general employability of tribal members (by increasing high school completion rates) and by providing training for jobs in high-demand areas such as construction and child care. The Natoma tribe, like others that lack a stronger economic development plan, also focuses on entrepreneurial training, which encourages economic development one small business at a time.

The other case study tribes fall in between these extremes in their level of economic planning and development. However, all the visited vocational programs are at least responsive to current and predicted local labor market trends.

Locale, Leadership, and Values

Tribes' proximity to other population centers, tribal leadership, and tribal values all affect their approach to vocational education.

The Natoma tribe again presents an illustrative example. This is a large tribe living a traditional lifestyle on a very isolated reservation, with few other job opportunities available. As the case study researchers report, "leaders support vocational education aimed at preparing students for employment opportunities both on and off the reservation, but much of the general population is strongly opposed to either 'sending young people off the reservation' through vocational education choices or bringing high-technology opportunities to the reservation itself. The feeling is that both of these education and economic development strategies would weaken the tribe's culture and diminish respect for traditional values and lifestyles."[21]

Economic development is easier — both psychologically and logistically — for those tribes living on less isolated reservations. These tribes tend to be more integrated into the wider range of educational and economic options in their area, although reservation life is typically still preferred and traditional values maintained, at least to some extent. The Sonesta tribe, for example, retains its traditional focus on the fishing industry, but is updating that focus to include a commercial marina and training in boat maintenance and repair as part of its economic development plan.

Isolated tribes face a dilemma that tribes near other population centers can avoid. Tribes near areas with employment opportunities can train tribal members for off-reservation jobs without concern about members leaving the reservation, since they can still live on the reservation while working nearby. For the two case study tribes in isolated areas with limited economic opportunities (Fort Bidwell and Natoma), the issue of preparing individuals for off-reservation jobs is more threatening and contentious, as it necessarily encourages outmigration. Educators at both sites recognize the need to prepare students for jobs wherever they exist, but must contend with the fact that this view is not always shared by all tribal members.

Not surprisingly, outmigration is a problem for both the Fort Bidwell Seekonk and the Natoma tribes, but not for the Pokamoke, a rural tribe with relatively strong economic development, or for the two tribes in more suburban areas. This suggests a somewhat ironic situation: The economic development that some tribes resist as a threat to maintaining their traditional ways of life appears necessary to guarantee that individuals remain on the reservation. Put succinctly, without economic development, education serves as a further impetus to the exodus of tribal members; with economic development, education provides the means to a more productive and rewarding on-reservation life.

Finally, tribal leadership and support are obviously vital to efforts to implement tribally sponsored programs, such as those funded by the Perkins Act. In each of the funded sites, tribal leaders strongly support vocational education, and supported the development of the Perkins programs. But even among these five sites, tribal leadership and support vary greatly. At one extreme is the Pokamoke

tribe, whose education and economic development efforts are strongest, and whose tribal leaders are ardent supporters of education. Pokamoke education staff and tribal leaders actively support tribal education not only at the local and regional levels, but also at the state and national levels. Their vocational training programs have undoubtedly benefited from this dedicated leadership, as the tribe continues to plan for future education and employment change.

In contrast, Fort Bidwell Community College is dealing with a newly elected tribal leadership that is not very supportive of its efforts. This lack of support has clearly had a negative impact on the tribe's Perkins programs, as needed funds are being withheld. First, the vocational education programs have not been given access to other federal funds (JTPA and JOBS), which limits their ability to provide supplemental student services. Funds for capital expenditures, needed to improve the facilities for vocational (as well as other programs) are also being withheld. In short, the lack of full tribal support results in Fort Bidwell Community College offering less effective vocational programs than it otherwise could.

Funding Issues

Some factors that can limit program success, such as conflicts with tribal values or tribal leaders, a poor local economy, and students' need to enter the workforce quickly, were discussed above. Here we focus on how the level and nature of funding for tribal education, particularly for vocational education, affects program success.

As mentioned previously, tribally funded community colleges receive less appropriations funding than do regular community colleges. This more limited funding necessarily restricts program offerings. As a result, Perkins funds are typically used not to expand or improve existing vocational programs, but to **create** new programs. Perkins funds are used for virtually every program cost — to hire staff, purchase equipment, pay student stipends (students are typically never turned away for lack of money), and provide supplemental student services such as counseling, transportation, child care, and job placement activities. To stretch limited funds as far as possible, tribes also combine and coordinate their federal funds whenever possible, using JTPA and JOBS funds, for example, along with Perkins funds to provide support services for eligible students.

In spite of these efforts, educational funds are typically insufficient to meet more than the most basic operating expenses. For example, programs typically have a high demand for services, as most of their enrollments are special needs students. However, services usually have a lower funding priority than staffing, facilities, and equipment, and thus suffer the most from funding limitations:

> Tribal leaders and educators lauded the Perkins program for its emphasis on supportive services for special needs students, but they also indicated that funds for these services continue to be inadequate. At programs serving tribal communities dispersed across large geographic areas, funds are insufficient to provide transportation for many community residents who do not have cars . . . Equally important, despite coordination with other funding sources, the availability of child care is almost universally inadequate to meet the needs of these reservations' large and growing single-parent populations. . . .
>
> Students were very clear about the impact of supportive services on their success, or lack of success, in vocational programs. Group interviews with students at Fort Bidwell Community College, the River Island Learning Center, and the Sonesta Indian College revealed that transportation assistance, child care, and tuition support are major factors contributing to students' ability to stay in school. Administrators emphasized that inadequate funding for these support services is an obstacle to increasing enrollments and reducing dropout rates.
>
> Fort Bidwell Community College provides an example of the inadequacy of funding for services such as transportation and child care. According to school officials, this lack of supportive services is a major factor contributing to high dropout rates, especially for women. Of the 146 women who enrolled in the college's Department of Vocational Education, 42 had dropped out by the time of the site visit. None of these individuals were employed. School officials believe that many of these individuals are at home because they cannot afford the child care and transportation costs to attend school or work.[22]

The Pokamoke vocational program provides a counterexample. School officials on this reservation place a high priority on providing every student with the full range of support services he or she needs to enroll in and complete a vocational program. For example, each student in the health and manufacturing skills programs has an "employability plan" that details student needs for transportation, child care, financial aid, personal counseling, tutoring, and English assistance; funds are marshaled from every available source to ensure that these student needs are met. Most other case study sites, however, fall closer to Fort Bidwell than to Pokamoke in their ability to provide needed services. It is unclear why the Pokamoke tribe is better able to fund support services; highly effective and dedicated tribal leadership seems a likely factor.

A shortage of funds also limits capital and curricular improvement efforts. At the case study sites, tribal facilities, equipment, and curricula were typically

deteriorating, out-of-date, and/or insufficient to meet growing student enrollments. Faculty at tribally run institutions are also often paid less than faculty at other local education institutions, making the hiring of qualified staff more difficult.

The Perkins Act cannot (and is not meant to) address the larger issue of adequate funding for tribal education. While the Perkins Act does not always provide enough money to allow tribal institutions to offer fully up-to-date, comprehensive vocational programs and services, it clearly provides the only means by which some tribes can offer the vocational education programs needed to support economic development efforts. Because of this heavy reliance on Perkins funds, the discretionary nature of Perkins funding is also an issue at many sites:

> At every case study site, program administrators emphasized their desire to see funding for Indian vocational programs shifted from discretionary to formula based. They highlighted the difficulties related to staffing and planning that result from the discretionary nature of individual program funding. This is especially problematic when administrators and tribal leaders finally develop community demand for participation in a program that may or may not be funded in future years. Unlike some public school district-level programs, institutions and tribal organizations that are receiving Perkins money generally do not have alternative funding sources that can substitute for Perkins support.[23]

At many sites, staffing vocational programs with instructors willing to live in the local area, knowledgeable about the indigenous language and customs, and with adequate vocational and instructional skills is difficult under even the best of circumstances. When the position relies on discretionary Perkins funds, staffing is made even more difficult by the lack of job security inherent in a "soft money" position.

On the other hand, it seems likely that not all tribes have an equally strong need or desire for vocational education programs. The competitive nature of the current award process helps ensure that limited Perkins funds are targeted to the tribal institutions that will most effectively use these funds.

CONCLUSION

Native Americans, particularly those living on reservations, are one of this country's most educationally and economically disadvantaged ethnic/racial groups. Many of the reservations, where one-third of Native Americans live, are located in remote rural areas, on lands that provide few of the natural resources or other conditions necessary for economic development. Those living on these reservations face the typical problems of areas with few employment

opportunities. In addition to high unemployment rates, these include low levels of educational attainment and high dropout rates, a high incidence of teen pregnancy and single parenthood, and high levels of drug abuse.

The federal government has a somewhat checkered past in its dealings with Native Americans, including attempts to abolish Native American culture through coercive educational practices. Current policy focuses on efforts to maintain indigenous cultures while also fostering their economic growth and independence. In support of these efforts, a number of BIA-funded schools are now administered by tribes, and 24 tribally controlled community colleges are supported with federal funds. The Perkins Act also supports this policy by sponsoring vocational education programs designed to train Native Americans for jobs in and around reservations.

Based on the data collected for the National Assessment, we believe that Perkins-funded vocational education programs play a key role in tribal efforts toward economic self-sufficiency. The Perkins Act specifies that these programs must be developed in response to a local needs assessment, and funding priority is given to programs that are linked to tribal economic development plans. As a result of these built-in links to the local labor market, Perkins-funded programs foster tribal development efforts by helping to supply the trained workforce that local employers need. This linkage also guarantees that programs have high job placement rates, strong student interest, and the support of the larger community. **We recommend that the Perkins Act maintain the strong linkage between funded programs and tribal economic needs and development.**

Although training programs seem to be well-linked to existing economic development efforts, these efforts are often insufficient. As a result, some program offerings train individuals for well-paying jobs that help foster tribal economic development, but others do not. Construction and child care, for example, are areas with high job demand, but they provide only part-time or minimal-wage employment in areas that do not promote tribal economic independence. To provide tribal members — and tribes in general — with more viable employment options, **tribes need to strengthen their economic development efforts and focus their vocational training in these economic-growth areas.**

Perkins-funded programs also seem to have only limited success in fulfilling the large demand for health-care workers that exists on many reservations. In spite of this need for trained personnel, few Perkins-funded health-care programs exist, and those that do tend to have very small enrollments. The underlying problem seems to be that most tribal members lack the basic skills necessary to enter these rigorous and selective postsecondary training programs. We believe that because of the high demand for health-care jobs (both on and off reservations), the opportunities for career growth, and the relatively good pay available in these jobs, **stronger efforts should be made to increase Native**

Americans' preparation for and access to health-care training. While important, these efforts should not replace tribes' current training efforts, but should supplement them.

Many health-care jobs lend themselves to an education and career path model where students can "stop out" of training at various job stages, such as health care aide, nurses' assistant, practical nurse, or registered nurse. A similar career path might be possible for jobs leading to health technician (which could also provide jobs of more interest to males, another need within tribal economies). This career path model can be combined with education options such as tech prep and apprenticeship programs to encourage early preparation, to provide opportunities for students to earn wages, and to provide a range of training levels.

Finally, we believe that the Perkins program for tribal institutions should remain as a competitive grant program. Even among funded tribes, tribal leadership and support for vocational education varies considerably, with repercussions on the quality of program offerings. The competitive process ensures that funds are awarded to sites where the leadership and commitment to vocational education is strongest, and thus where programs are likely to be most effective and successful. However, we also believe that administrators' concerns about hiring and maintaining staff under the constraints of discretionary funding should not be ignored.

Although the difficulty of planning and staffing programs under the vagaries of discretionary funding is a common concern among federal grant recipients, those with more varied funding sources are often able to maintain programs that lose federal funding. But for those with few or no other funding sources, such as tribal institutions, a loss of federal funds most likely means the end of the program. This knowledge not only makes it difficult to plan and hire staff, but can also prevent tribes from starting programs. Because of these problems, **procedures for alleviating the instability of Perkins grants should be considered.** At least two options are possible. First, grants could be extended for up to for five years instead of the current one to three years, with an emphasis on longer awards. Another option is to give priority to continuing programs by considering prior experience as an evaluation criterion in the grant award process.

In sum, these Perkins-funded tribal vocational education programs appear to fill a critical need for educational opportunities for the most disadvantaged individuals on tribal reservations, and to provide the trained workers needed by many local employers. Program success seems to result from inherent linkage between training and the local labor market, especially to the labor market on reservations. Although these programs do not need major adjustment, fine-tuning can strengthen their ability to support individual and tribal economic development efforts.

ENDNOTES

1 Sections 403 (b) (1) and 403 (b) (2) (emphasis added).

2 An additional .25 percent is reserved for programs for Hawaiian Natives.

3 Section 103 (b).

4 Tribal economic development plans were mandated by the 1975 Indian Self-Determination and Education Assistance Act.

5 This section draws heavily from a literature review conducted for the National Assessment by Blood, P., & Burnham, L.H. (1994), *Meeting the Vocational Needs of Native Americans*, Library of Congress, Federal Research Division.

6 This includes the 11% living in Oklahoma service areas, which are non-reservation lands under tribal jurisdiction.

7 Slater, G. (1992), Principal issues regarding Native Americans to be addressed by the National Assessment of Vocational Education, in *Papers Presented at the Design Conference for the National Assessment of Vocational Education*, U.S. Department of Education, Office of Educational Research and Improvement.

8 Serrill, M.S. (1992, Nov. 9), Struggling to Be Themselves, *Time*, pp. 53–54.

9 This section draws heavily from two sources: the literature review conducted by Blood & Burnham (1994), and the National Assessment design paper by Slater (1992).

10 Slater (1992), p. 216.

11 Blood & Burnham (1994), p. 25.

12 Slater (1992), p. 217.

13 Blood & Burnham (1994), p. 21.

14 Ibid., p. 27.

15 Brush, L., Traylor, K. & O'Leary, M. (1993), *Assessment of Training and Housing Needs Within Tribally Controlled Postsecondary Vocational Institutions: A Description of Facility and Housing Needs and Five-Year Projections for Meeting Facility and Housing Needs*, U.S. Department of Education, Office of Policy and Planning.

16 Tribal data are from unpublished tabulations produced by Salish Kootenai College (February 1994). Public 2-year institution data are from Barbett, S., et al. (1993), *State Higher Education Profiles* (Combined 5th and 6th Eds.), U.S. Department of Education, National Center for Education Statistics.

17 Hudis, P. (August, 1993), *National Assessment of Vocational Education: American Indian Programs*, MPR Associates.

18 Ibid., p. 24.

19 Ibid., p. 39.

20 Ibid., p. 41.

21 Ibid., pp. 31–32.

22 Ibid., pp. 30–31.

23 Ibid., p. 42.

CHAPTER 4

VOCATIONAL EDUCATION IN CORRECTIONAL FACILITIES

INTRODUCTION

It is widely believed that providing education for inmates in correctional facilities is valuable for both the inmates and society at large. Better education is presumed to make inmates more employable and less prone to recidivism. In line with this goal, federal support for correctional education has existed since the mid-1960s, and currently includes support from a number of federal education and training acts, including the Perkins Act.

In this chapter, we examine the size and nature of the correctional population, the educational programs serving this population, and the allocation and uses of 1990 Perkins funds in state correctional facilities. Data on these issues are available from three main sources: the *Sourcebook of Criminal Justice Statistics*[1]; a literature review on vocational education in correctional facilities conducted for the National Assessment[2]; and a recent survey of state correctional education agencies conducted by the National Center for Education Statistics (the 1993 Surveys of Adult and Juvenile State Correctional Education Agencies).[3]

The Perkins Mandate

Before the 1984 Perkins Act was passed, criminal offenders could be served by federal vocational education funds only at the state's discretion. To provide increased and more uniform funding, the 1984 Act mandated that one percent of each state's Perkins funds was to be used exclusively for criminal offenders. This one percent set-aside was retained in the 1990 Perkins Act, and totaled approximately $10 million in fiscal year 1993.

To administer these funds, the Act requires that each state designate one or more state corrections agencies for this purpose, and that each agency submit a plan for funds use to the state board. Each state must also give priority to serving offenders who are preparing for release, establishing vocational education programs in facilities without programs, improving equipment, providing programs for incarcerated women, and serving offenders before and after their release.[4]

Under the 1984 Perkins Act, the adult, disadvantaged, and disabled set-asides were one of the more common additional sources of funds from which corrections education could draw; with the elimination of those set-asides, there was some concern about a potential loss of funds. To avert this, the Congress included criminal offenders in its definition of "special population students" in the 1990 Act, and added a "hold harmless" provision to ensure that state

correctional agencies received equivalent or greater funding under the 1990 Act than under the 1984 Act.[5]

The Perkins Act also includes other provisions designed to enhance vocational education within correctional facilities, including funds for national demonstration programs for federal correctional facilities, and allowable expenditures for professional development for corrections educators. Finally, to improve and consolidate federal efforts concerning correctional education, the Perkins Act contains amendments that mandate the establishment of an Office of Correctional Education within the U.S. Department of Education. This Office currently oversees $13 million in grants and contracts.[6]

OVERVIEW OF THE CORRECTIONAL SYSTEM[7]

The criminal justice system operates correctional facilities at the federal, state, and local levels, for both adult and juvenile offenders. Local facilities (primarily city and county jails) house relatively few inmates for short periods of time, and are not discussed in this chapter.

As of 1990, there were 1,287 correctional institutions in the United States, including 1,207 state institutions and 80 federal institutions. These institutions house (as of the end of 1992) 883,593 inmates, 91 percent in state prisons and 9 percent in federal prisons. Nineteen percent are first-time offenders, and 81 percent are recidivists, or repeat offenders.[8] About 7 percent are juvenile offenders, and the remainder are adult offenders.

Characteristics of the Correctional Population

Those with the least educational and economic resources are the most likely to become criminal offenders. As a result, the correctional population is disproportionately minority and educationally and economically disadvantaged (see Table A-4.1 in the Appendix). This population is also almost exclusively male — 94 percent of inmates are men.

The greater poverty levels among Blacks, Hispanics, and Native Americans, as well as their concentration in inner cities, undoubtedly contributes to the high rates of incarceration for these groups. Blacks are the largest racial/ethnic group represented in prisons, making up 44 percent of inmates. The incarceration rate for black males is particularly high; almost one-fourth of black men between the ages of 20 to 29 are under the jurisdiction of the criminal justice system (on probation, in prison or jail, or on parole). While Hispanics and Native Americans are also overrepresented in the prison population, whites and Asians are underrepresented.

Poverty and joblessness are common predecessors of incarceration. For example, about 40 percent of inmates have sporadic employment histories, and their

income in the year before their incarceration is, on average, about half that of the adult male population (although these lower incomes may result, in part, from previous incarceration, since many are repeat offenders). Half of inmates have not graduated from high school, compared to one-fourth of the adult population. Illiteracy rates are also higher among the prison population. For example, while less than one-fourth of the total adult population performed at the lowest level on a recent assessment of prose, document, and quantitative literacy (21%, 23%, and 22% respectively), one-third or more of the prison population performed at the lowest level (31%, 33%, and 40%).[9]

Disabilities are also unusually prevalent among the inmate population:

> Although comprehensive statistics are unavailable, it is widely believed that between 20 and 40 percent of inmates experience some form of physical or learning disability. It is estimated that the incidence of disabilities among incarcerated individuals is three times that of the general population. Higher rates of disability have been reported among juvenile inmates than among adult inmates, although some of the difference may reflect more thorough testing and evaluation afforded to juveniles. A 1985 survey of administrators of state adult and juvenile facilities found that an average of 28 percent of juvenile offenders and 10 percent of adult inmates manifested some form of disability.[10]

Correctional Population Trends

In the last decade, the crime rate has risen slightly, while the inmate population has risen sharply. From 1982 to 1991, the crime rate increased 5 percent and the number of crimes committed increased 13 percent,[11] while the number of inmates increased 99 percent. Over a slightly longer period, from 1980 to 1992, the prison population grew from 330,000 to 884,000, an increase of 168 percent. This growth reflects the effects of increasing incarceration rates, which have risen every year since 1972, when the incarceration rate was 93 per 100,000 inhabitants; in 1992, it reached a new high of 329 per 100,000. This phenomenal growth is attributed mainly to the spread of minimum mandatory sentencing guidelines and to crackdowns on drug offenses.

Growth in the prison population has occurred among both juvenile and adult offenders, but has been most marked among adults. From 1975 to 1991, the juvenile offender population increased 22 percent, while the adult population increased more than ten times as much (over 220%).

As the inmate population has grown, overcrowding has become an increasing problem. In 1990, 2 percent of state inmates (over 18,000) were housed in local jails to relieve overcrowding. In that same year, 15 percent of state correctional facilities were under a court order or consent decree because of crowded

conditions, and 22 percent were ordered to limit their population. By the end of 1992, 21 of 51 jurisdictions (the states and the District of Columbia) reported that state inmates were being held in local jails to relieve overcrowding. This problem is not expected to be alleviated in the near future, as projections call for continued growth in the inmate population.

In spite of its rapid growth, the composition of the correctional population has changed little in the past few years. Surveys of state prisons conducted in 1986 and 1991 show that the gender, marital status, and unemployment status of the prison population remained about the same, while the proportion with a high school education increased from 29 to 34 percent, and the proportion of minorities increased 5 percent. These latter changes reflect broader trends in the education level and minority composition of the population in general.

We now turn to an examination of correctional education, focusing on vocational education in particular. Before examining current programs, however, it is useful to place these programs in a larger context. We thus begin with a review of the unique political, organizational, and other barriers faced by correctional education, and a discussion of the effectiveness of correctional education in reducing recidivism rates.

ISSUES IN CORRECTIONAL EDUCATION[12]

American prisons originally operated at little expense to the public, as their costs were largely defrayed by prison labor. However, these work systems were often exploitative and brutal, and were dismantled during the Progressive Era of the late 19th and early 20th century. Vocational education was then advocated as an alternative to prison labor that would keep inmates occupied while teaching them productive skills. To keep the distinction clear, vocational education was kept separate from remunerative prison labor programs. This created a competitive environment that continues today, as education programs compete with second-generation prison labor (and other) programs for inmates' time.

Factors Affecting Education Programs Within Prisons

Today's prison industry programs provide inmates with paid work, usually work that is required for state operations, or to maintain the correctional facility. The competition between education and these prison industry programs is particularly keen. Inmates like the industry programs because they provide income, and administrators like them because they help prisons recover operating costs. As a result, prison industries often are given higher priority than education. Education programs may be scheduled at the same time as work programs, or during recreational periods, so that inmates must sacrifice valued activities in order to participate in education or training. A federal model of coordinated instruction and work experience (the TIE approach, discussed below) is helping alleviate this competition in the several states that have

adopted this model. However, in general, more widespread and committed efforts are needed to guarantee that inmates do not lose other valuable opportunities or privileges in order to participate in education programs.

Competition also arises from the historical tension between correctional education and therapy. While therapists focus on inmates' personality disorders and interpersonal conflicts as causes of criminal behavior (and curing these as preconditions for eradicating criminal behavior), educators focus on inmates' lack of marketable skills and the acquisition of those skills as the means of changing behavior. Because of a lack of systematic evidence on which approach is more effective (or on how the two approaches might be effectively combined), the debate over which is more beneficial continues. Therapeutic interventions continue to gain in popularity, sometimes at the expense of education programs.

Public attitudes toward criminals and criminal justice also affect education opportunities for incarcerated individuals. In the past, correctional education reform efforts have coincided with a public emphasis on incarceration as a tool for rehabilitation, rather than as a means of punishment or retribution. From the 1980s to today, growing public impatience and disdain for criminal offenders have contributed to a declining interest in correctional education programs:

> [T]he 1980s were an inauspicious era for innovation in vocational or other forms of correctional education. Indeed, during the 1980s — reflecting an unprecedented consensus among spokespersons for both the political left and right — the very notion of "treatment" in corrections came to be seen as intellectually bankrupt. Captured in its starkness by the term "selective incapacitation," the focus of policy was mainly on whom to lock up, and for how long, instead of what to do with, or for, the rapidly growing number of inmates once they were behind bars . . .
>
> During the 1980s . . . opinion polls indicated that the American public became increasingly hostile and suspect of all rehabilitative programs aimed at reintegrating prisoners into the social mainstream. The period witnessed a virtual "demonization" of prisoners in public opinion: A stark emphasis on prisoners' destructive tendencies highlighted (often under the rubric of "career criminal") an impassable moral and behavioral gulf that was alleged to separate them from law-abiding citizens. Accentuated by the ever-rising portion of inmates who were from minority groups, the drift of public opinion in the 1980s boded ill for correctional innovations that were predicated upon widespread community acceptance of ex-convicts for the vocational skills they brought back with them.[13]

The 1990s have so far seen a continuation of this trend. Two recent political events highlight continuing public concerns: The Administration has recently passed a new crime bill (the 11th federal crime bill in 26 years), and inmates' eligibility for Pell Grants is facing its most serious attack ever in the Congress. Public reluctance to spend money on the correctional population is also reflected in the relatively low budgets for correctional education. While local school districts spend an average of about $5,700 per student, the Federal Bureau of Prisons spends $1,255 per inmate-student in federal prisons, and states spend $1,830 for those in state prisons.[14]

In addition to these larger political concerns, there are also numerous practical problems in implementing correctional education programs. One recent review highlights problems created by the unique physical and organizational structure of the correctional environment:

> The secure correctional environment usually creates severe constraints on programs. Due to overcrowding, fiscal constraints, and the higher priorities usually set on security, correctional programs often lack adequate space and equipment for educational programs. Frequent lock-downs, tool-control policies, institutional counts, and other factors take large bites out of the time available for classes. Frequent — and often sudden — transfers impact on program continuity and completions. Uncertainty about parole or release makes it hard to time programs so that completions are possible and in proximity to release . . . "[15]

Other problems faced by correctional institutions mirror those found in public schools in general, but are exacerbated by the financial, political, and structural limitations inherent in the correctional environment. These include difficulties in finding and maintaining instructional staff; finding and maintaining necessary instructional equipment; keeping inmates long enough to impart advanced work skills; maintaining support for programs among institutional administrators, labor unions, legislators, and the public; and finding employment for program graduates upon release.[16]

The relatively low priority given to education within the correctional system is reflected in a recent General Accounting Office report on education programs in federal prisons, which found generally sloppy record-keeping and poor enforcement of the federal system's literacy requirements. For example, only a minority of eligible inmates were enrolled in the requisite GED or English-language programs. The federal literacy requirement for job promotion was not strongly enforced, and poor records were kept on inmates' educational course enrollments, completions, and withdrawals, limiting institutions' ability to determine inmates' eligibility for education programs or their educational needs.[17]

Education's Effect on Recidivism

Finally, there is the basic question of whether education programs "do" anything for prisoners (and for society). Is education an effective means of rehabilitation — does it reduce recidivism rates?

Published studies examining correctional education's effect on recidivism rates are rare, and many correctional researchers have noted the need for studies in this area (e.g., Schlossman and Spillane, 1992). However, the few studies available do suggest that these education programs may have positive effects.

For example, a recent study of ex-offenders in Alabama found that the recidivism rate for those who completed community or technical college programs while in prison was about 5 percent, compared to 35 percent for the entire prison population.[18] Studies in Maryland, New Jersey, New York, and the District of Columbia have also found lower recidivism rates among inmates who enroll in education programs.[19] A study of youthful offenders found that education and treatment programs within the correctional environment are two of many factors related to post-release success.[20]

Perhaps the best research on this issue comes from two recent studies conducted by the Federal Bureau of Prisons. The first of these found that participation in correctional education courses reduced the recidivism rate among ex-offenders; those completing at least one course per each six months of confinement had recidivism rates of 36 percent, compared to 44 percent for those who completed no courses.[21] The second study examined the relationship between participation in vocational and work experience programs and a range of post-release success measures. Participants in these programs were found to have better post-release success, including longer-term employment, slightly higher income levels, and a decreased likelihood of having their parole revoked.[22]

The rigor and reliability of many of these studies are limited or unclear, and we would not base definitive conclusions on them. There are, however, logical reasons to expect such positive outcomes from correctional education programs. First, the most common reason inmates give for participating in education programs is their interest in self-improvement and enhancing their chances of success after release.[23] Hence, programs may provide the means for a self-selected group of inmates to develop a viable alternative to a life of crime. Second, successful ex-offenders have noted that education programs can also spark interest in personal growth and change, by providing inmates with positive role models (through reading) and a constructive way to channel their anger and frustration (through writing). Some studies support this anecdotal evidence, showing that education programs have positive effects on the attitudes and behaviors of inmates while they are still incarcerated — effects that may carry over to the post-release environment.[24]

Studies that look specifically at the outcomes of correctional **vocational** education programs are even more rare. Noting this lack of evidence, researchers at the National Center for Research in Vocational Education have concluded:

> Too often, we believe, proponents of correctional education programs — especially with a vocational focus — have proclaimed the virtues of their ideas as self-evident: as if the greater alleged "practicality" of vocational programs guaranteed them both wider public support and greater rehabilitative effectiveness than other interventions. This is no longer adequate. . . . This is not to argue against innovative education programming in correctional institutions, but rather to insist that the development of a persuasive, empirically grounded justification for investment in vocational education ought to be considered necessary before it is decided, as a matter of policy, to choose this educational route rather than some other. Unless it can be shown that vocational programming is superior to other educational or therapeutic interventions with prisoners, there seems no compelling reason to assume it to be so.[25]

We agree that better data are needed to evaluate the effectiveness of vocational education within correctional facilities. With this background, we now turn to an examination of educational requirements and offerings within the correctional system.

EDUCATION IN CORRECTIONAL FACILITIES

Correctional education is mandatory for juvenile offenders below the compulsory school age (which varies by state) and for some adult offenders. For all other inmates, participation in education programs is voluntary, although incentives are often used to encourage participation among those with low achievement or attainment levels. Because of the low levels of educational attainment typical of the inmate population, most correctional education tends to focus on adult basic education (ABE) and GED preparation.

The Federal Correctional Education System

The federal correctional education system is run by the Division of Industries, Education, and Vocational Training of the Federal Bureau of Prisons (FBP). In 1993, the FBP had an education budget of $35 million, and enrolled 27,870 students, comprising the largest single correctional education system in the country.[26]

The FBP operates under the Training, Industries, and Education (TIE) model, which provides a single, coordinated management structure for education, vocational training, and prison industry programs. The TIE model originated in

1982 as a means of reducing the competition between prison industry and education programs, and improving training and work-experience programs.

Within this structure, the Federal Bureau of Prisons operates both mandatory and voluntary education programs. In accordance with the Crime Control Act of 1990, the FBP provides mandatory functional literacy programs for all mentally competent inmates who are functionally illiterate, and ESL (English as a Second Language) programs for non-English-speaking inmates. The mandatory literacy program requires that eligible inmates enroll in ABE or GED preparation programs for 120 days.

As an incentive for these inmates to continue beyond the mandatory period, and for others to improve their abilities, inmates must demonstrate minimal levels of proficiency in reading and computational ability in order to advance beyond the entry-level pay grade in jobs run by the Federal Prison Industries, Inc. In 1982, the passing level required to receive a pay increase was set at the 6th-grade level; it was raised to the 8th-grade level in 1986, and to the 12th-grade level in 1991.

Funding in Federal Facilities. Education in federal prisons is largely funded through a line-item in the overall budget for the Federal Bureau of Prisons. The budget for federal inmate educational and recreational programs has increased steadily from about $5 million in 1965 to about $112 million in 1993. Vocational education funding, however, increased to about $8 million in 1985 and has since declined to about $3 million in 1993.

State Correctional Education Systems

Each state and the District of Columbia operate their own corrections education system(s) through state agencies of correctional education. Thirty-eight states have separate state correctional education agencies for juveniles and adults, and 13 have combined juvenile-adult agencies. About 70 percent of these 89 state correctional education agencies operate within state departments of corrections, 20 percent within umbrella agencies (such as state departments of criminal justice, youth services, or health and human services), and 6 percent in state departments of education. About half of the states have mandatory literacy programs; several use the federal TIE model.

Correctional education agencies exhibit three broad systems of operation, with varying degrees of centralization and connection to "mainstream" education (see Table 4.1). The most common is the correctional education bureau, in which policy and decision-making are centralized within the state correctional education office, and are independent of the state's department of education. Fifty correctional education systems (just over half) operate under this model.

Table 4.1
Number of State Correctional Agencies With Each Operational Structure

Operational Structure	Level of State Agency			
	Juvenile	Adult	Combined	Total
Correctional education bureau	20	22	8	50
Decentralized system	13	6	2	21
Correctional school district	6	9	3	18
Total	39	37	13	89

Source: Burnham & Miro (1994)

Next most prevalent is the traditional decentralized system, in which education programs are administered independently by each facility, under the supervision of the facility warden. Twenty-one correctional education systems (about one-fourth) operate under a decentralized model.

Finally, just under one-fourth of the agencies operate as correctional school districts, recognized by their states' department of education as local education agencies (LEAs). As such, these correctional agencies are eligible for federal and state funds designated for LEAs. As we will see below, some correctional education agencies are classified as school districts only for Perkins purposes, making them eligible for Perkins basic grant funds in addition to the one-percent set-aside (and any available discretionary funds).

Funding in State Facilities. States provide about 90 percent of the funding for correctional education in state facilities, with federal sources covering the remainder.[27] State funds come largely from conventional line items in Department of Corrections budgets, while federal funds are derived from various federal laws, as described below.

Federal support for state correctional education began with the 1965 amendments to the Manpower and Training Act, which included secondary and vocational education in prisons as priority areas. Since the 1960s, correctional facilities have been able to draw from an increasing number of federal funding sources. Major sources of federal funds for adult correctional education currently

include the Adult Education Act, Chapter 1 of the Elementary and Secondary Education Act (ESEA), and the Higher Education Act, including the Pell Grant program. Vocational education funds are provided through the Job Training Partnership Act (JTPA) and the Perkins Act. At the juvenile level, major federal funding sources include Chapter 1 of the ESEA (the Neglected or Delinquent Program), Part B of the Individuals With Disabilities Education Act (IDEA), and the Perkins Act.

Federal funds constitute about 8 percent of adult correctional education funding, and 14 percent of juvenile funding. Perkins funds comprise 2 percent of funding at both levels, varying by state from less than one percent up to 22 percent. We do not know what proportion of vocational funds are derived from 1990 Perkins funds, but an earlier study found that 1984 Perkins funds made up anywhere from zero to 80 percent of states' vocational education funds for correctional facilities.[28]

In the past five years, funding for correctional education, and especially for vocational education, has declined in at least half of all state correctional systems, largely as a result of state budget cuts.[29] These reductions are affecting virtually all public education systems; as we saw in the *Interim Report*, many local communities were hard hit by the recession of the early 1990s, and vocational education programs appeared to have been particularly vulnerable in those communities as well.[30] Funding cuts are more problematic in correctional facilities, however, because the population in these facilities is growing so quickly. Even prior funding increases (of 59% from 1985–86 to 1990–91) allowed correctional education budgets to merely keep pace with population growth.

In spite of funding shortages, scheduling conflicts, and other problems, correctional education programs are often in high demand. In 1993, the Federal Bureau of Prisons and 84 percent of states reported that they have waiting lists for at least some of their education programs.[31] At the same time, continuing concerns about incentives for participation in education programs suggest that enrollments are not always as high as administrators and policymakers would like. For example, the GAO's recent report on federal prisons was commissioned to examine (among other things) why so few inmates complete education programs. Nonetheless, the supply of education courses is sometimes insufficient to meet existing demand, a problem that is likely to become more severe if state budgets continue to tighten while the prison population increases.

There is one potential benefit to this over-subscription. It provides a useful opportunity to assess the effects of correctional education programs independent of selection effects. Comparing the post-release employment and recidivism rates of inmates who remain on education waiting lists with those who are able to participate would reveal the effects of these programs beyond those of self-selection. (Of course, conducting such a study would require specific federal funding.)

Types of Education Programs Offered

How many correctional facilities offer education programs, and what types of programs do they offer? As Table 4.2 shows, correctional education programs are not universal, but are quite common; over three-quarters of federal and state facilities offer adult or secondary academic education programs. Federal facilities are more likely than state facilities to offer each type of education and training program, and especially to offer college education and prison industry programs.

Table 4.2
Percent of Federal and State Correctional Facilities Offering Education Programs, by Type of Program, 1980

	Federal Facilities	State Facilities
Academic programs		
Secondary/GED	96	80
Adult basic education	96	78
College education	88	59
Special education	65	49
Work-related programs		
Facility support services[a]	98	86
Vocational training	63	50
Prison industries	78	33

[a] Facility support services place inmates in jobs designed to support the operation and maintenance of the correctional institution. These jobs typically include office work, administration, food services, laundry, and building maintenance, repair, and construction.

Source: Maguire et al. (1993)

Both basic and advanced (college) academic programs are more common than vocational training programs, although some type of inmate work experience is offered by the vast majority of correctional institutions. Prison industries and facility support services are particularly common among federal facilities, as all federal inmates are required to participate in one of these programs. Interestingly, however, federal inmates rate vocational training programs as more likely than prison work programs to enhance their post-release success

(reflecting the fact that most work programs are designed to meet institutional needs, rather than inmate needs).[32]

Given rising costs and declining budgets, it is not surprising that facility support services are also more common than vocational training programs within state facilities. In fact, from 1984 to 1990, participation in facility support programs in state facilities grew from 31 to 41 percent, while vocational training enrollments remained relatively stable. This growth in programs that tend to provide the least valuable work experiences clearly reflects increased funding constraints within state correctional facilities. While it is reassuring that this growth has not led to a corresponding decline in vocational enrollments, there are no assurances that it will not negatively affect enrollments in the future.

From the survey of state correctional education agencies, we can compare a slightly different range of education offerings across state adult and juvenile facilities (see Table 4.3). These data show that although the vast majority of both types of facilities offer some form of education program, juvenile institutions are more likely to have these programs (except postsecondary programs). The wide range of offerings available reflects the varied needs of the inmate population for basic academic instruction, vocational training, and improved functional and social skills.

Table 4.3
Percent of State Adult and Juvenile Correctional Facilities Offering Educational Programs, 1991–92

Program	Adult Facilities	Juvenile Facilities
Academic/adult education	88	99
Life and social skills	67	93
GED preparation	[a]	85
Vocational education	67	83
Postsecondary education	52	30
Special education	29	89

[a] GED preparation is included in adult education category for adult facilities.

Source: 1993 Surveys of Adult and Juvenile State Correctional Education Agencies

Academic/Adult Education. For both adult and juvenile inmates, academic programs are the most commonly offered. Almost 90 percent of adult facilities and virtually all juvenile facilities provide these programs. These high percentages reflect the compulsory education requirements for school-age juveniles, and, at the adult level, mandatory education requirements within 19 states.

Life and Social Skills Instruction. Correctional facilities also provide inmates with instruction on personal and interpersonal issues related to effective functioning in society. This instruction includes topics such as health issues, interpersonal interactions, consumer education, substance abuse prevention, and "adjustment to release" issues. These programs are offered by most correctional facilities, ranking second only to academic programs; 67 percent of adult facilities offer these programs, and 93 percent of juvenile facilities. The greater prevalence of these programs at the juvenile level may reflect the common belief that it is easier to change the lifestyles and choices of teenagers than of adults.

Special Education. As mentioned earlier, the correctional population includes a relatively high percentage of individuals with learning disabilities. To address this problem, most juvenile facilities (89%) offer special education programs, which are usually federally funded through Chapter 1 of the ESEA and/or IDEA. Since most adult inmates are over the age limit for services funded under these Acts (21 years old), special population programs are less frequently found in adult facilities, with fewer than one-third offering these programs. According to state administrators, only about 20 percent of the adult inmate population with a need for these services currently receives them.[33]

Vocational Education. Most facilities also offer vocational education, including 67 percent of adult facilities and 83 percent of juvenile facilities. While the main goal of these programs is usually to prepare inmates for post-release employment, vocational training also can prepare inmates for prison work and facility maintenance programs. In some facilities, vocational education competes with these work programs; in others, the TIE approach helps integrate inmate and institutional needs for training and work activities.

Postsecondary Education. Postsecondary instruction is less often available than other, more basic forms of instruction; 52 percent of adult facilities and 30 percent of juvenile facilities offer postsecondary education programs. Most postsecondary education is taken in vocational program areas, and most is contracted out to local community colleges. To enroll in these courses, inmates have increasingly relied on Pell Grants. About 5 percent of the inmate population (both adult and juvenile) receive Pell Grants, or about half of the inmates enrolled in postsecondary programs.[34] Inmates currently receive about one percent of all Pell Grant awards.[35]

Participation in Education Programs

Only about one-fourth of state inmates currently participate in correctional education programs. This figure underestimates participation rates, however, as some inmates who are not currently enrolled may do so at a later date, and others may have been enrolled in the past. For example, a recent survey of federal inmates found that 8 percent were currently enrolled in vocational programs, but that one-quarter had been enrolled at some point in the last two years.[36] Nonetheless, current enrollment data are useful for comparing the level of enrollments across inmates and programs.

Not surprisingly, adult and juvenile inmates differ greatly in their participation rates; 21 percent of adult inmates are enrolled in education programs, compared to 90 percent of juveniles (see Table 4.4). At the adult level, academic programs enroll the largest percentage of inmates, followed by vocational programs. At the juvenile level, life and social skills are most popular, followed by academic, then vocational programs.

Table 4.4
Average Daily Attendance in State Adult and Juvenile Correctional Education Programs, as a Percentage of Daily Inmate Population, 1991–92

Program	Adult Population	Juvenile Population
Academic/adult education	11	83
Vocational education	7	64
Life and social skills	6	90
Postsecondary education	4	13
Apprenticeship	3	<1
Special education	1	33
GED preparation	[a]	20
Any education program	21	90

[a] GED preparation is included in adult education category for adult facilities.

Source: 1993 Surveys of Adult and Juvenile State Correctional Education Agencies

Seven percent of adults and 64 percent of juveniles participate in vocational education programs. Some correctional vocational programs include an apprenticeship, but these appear to be rare. Only 3 percent of adult inmates, and less than one percent of juveniles participate in apprenticeships.

Additional information on inmates' participation in vocational education is available from the 1992 National Adult Literacy Survey (NALS), which asked a sample of incarcerated individuals whether they had participated in education programs at any point in their current incarceration period. (These data are summarized in Appendix Table A-4.2.) The NALS found that male and female inmates and those of different racial/ethnic backgrounds (white, black, Hispanic) were about equally likely to participate in vocational education programs, with about one-third of each group having received some vocational training since their most recent admission.

A higher proportion, about half, had participated in general education programs. Inmates with longer sentences (and thus more time to have participated) were more likely to enroll in education programs, including vocational education, than those with shorter sentences.

Finally, those with more prior education were also more likely to enroll in vocational programs; 29 percent of those with eight or fewer years of schooling enrolled in vocational education programs, compared to 34 percent of those with a high school diploma or GED, and 40 percent of those with at least some college. The lower participation rate for those who did not complete high school is to some extent due to their greater enrollments in general education programs.

Provision of Vocational Education Services

In some cases, correctional institutions provide education services directly, using their own staff, instructional materials, and facilities. In other cases, instruction is contracted out to other providers, such as local education agencies (LEAs), community colleges, or vocational schools. At the state level, vocational education tends to be contracted out more often than academic education, and adult education — both vocational and academic — more often than juvenile education (see Appendix Table A-4.3). As one would expect, vocational services are most often contracted out to vocational schools and community colleges, and both of these providers are used more for vocational instruction than for academic instruction.

Program staffing also differs between adult and juvenile programs, and between academic and vocational programs. The average adult facility provides eight FTE (full-time equivalent) teachers, of whom three are vocational teachers. Juvenile facilities are much smaller than adult facilities, but because more juveniles are enrolled in education programs, juvenile facilities have more staff; the average juvenile facility provides 18 FTE teachers, four of whom are vocational teachers.

Student-teacher ratios (based on average daily attendance rates) show that juvenile facilities' staffing is superior to that of adult facilities. Juvenile education programs in general enroll 8 students per teacher, and juvenile vocational programs enroll 14 students per teacher. Adult programs are larger: Education programs in general enroll 26 students per teacher, and vocational programs enroll 17 students per teacher.

PERKINS FUNDS FOR CORRECTIONAL VOCATIONAL EDUCATION

The data for this section come from the 1993 Surveys of Adult and Juvenile State Correctional Education Agencies. Because of missing and inconsistent data, the information in the survey on Perkins funding is not highly reliable. While we think the data are still useful for providing a broad, first look at Perkins funding, the reader should view these findings as tentative. One exception is for states in which funding levels were found to drop in spite of the "hold harmless" provision; these states' correctional education agencies were contacted to verify their funding data.

Overall Funding

In 1991–92, the first year of funding under the 1990 Perkins Act, Perkins allocations to state correctional education agencies averaged $280,440 (based on 21 states). This includes funds for both adult and juvenile agencies, and funds from the one-percent set-aside and all other Perkins sources (e.g., single parent grants, Perkins local basic grants).

Allocation of Funds to Adult and Juvenile Agencies

Typically, both adult and juvenile state correctional education agencies received Perkins funds, although adult agencies received a slightly larger share. Seventy-two percent of the states reported that both agencies received Perkins funds in 1991–92, with funds going only to adult agencies in five states (20% of those responding), and only to juvenile agencies in two states (8%). Overall, 59 percent of Perkins funds were awarded to adult agencies.

Table 4.5 shows that although adult correctional agencies received a larger share of Perkins funds, these funds reach a larger share of the juvenile population than of the adult population (because the former is smaller). Juveniles also receive more Perkins funds on a per-student basis.

Perkins funds tend to be fairly concentrated at both levels. Less than half of the correctional population is reached by Perkins funds, but this concentration results in relatively high per-student Perkins expenditures. Funds concentration is slightly higher at the juvenile level; while funds for adults reach 57 percent of

Table 4.5
Distribution of 1990 Perkins Act Funds to Adult and Juvenile Correctional Populations, 1991–92
(N = Number of Responding States)

	Adult Corrections	Juvenile Corrections
Average amount of Perkins funds per state	$182,080 (N=37)	$100,037 (N=32)
Percent of state agencies receiving funds	95% (N=41)	84% (N=32)
Percent of population reached	12%	43%
Average amount per inmate	$41 (N=23)	$188 (N=23)
Percent of students reached[a]	57%	48%
Average amount per student	$122 (N=23)	$199 (N=23)

[a] These percentages were calculated from reported numbers of students and reported percentages of inmates reached.

Source: 1993 Surveys of Adult and Juvenile State Correctional Education Agencies

students and provide $122 per student, funds for juveniles reach relatively fewer students (48%) but provide more money per student ($199). Both per-student figures are relatively high and would be even higher if restricted to vocational students. This suggests that Perkins funds for correctional education are concentrated for maximal impact.

One-Percent Versus Other Perkins Funds

Most of the Perkins funds received by correctional education agencies (86%) are one-percent set-aside funds (see Table 4.6). Only half of the agencies receive other Perkins funds in addition to this. These "other" Perkins funds may include Title II basic grant funds, grants for single parents, single pregnant women, and displaced homemakers, and other potential funding sources.

Although we do not know the exact sources of these funds, we do know that adult agencies are more likely than juvenile agencies to receive "other" Perkins funds. However, as we saw above, this greater likelihood of receiving additional

Table 4.6
Distribution of 1991–92 Perkins One-Percent Funds and Other Perkins Funds to Correctional Education Agencies, 1991–92
(N = Number of Responding States)

	1-Percent Set-Aside	Other Perkins Funds
Average allocation per state	$265,276 (N=18)	$46,023 (N=16)
Percent of total Perkins allocation	86%	14%
Per inmate allocation	$30	NA
Percent of states in which:		
Either agency received funds	100%	50%
Adult agency received funds	89%	41%
Juvenile agency received funds	80%	19%
Both received funds	69%	10%
Adult per inmate allocation	$32	NA
Juvenile per inmate allocation	$133	NA
Percentage allocated to adult agency	59%	59%

NA = Not appropriate

Source: 1993 Surveys of Adult and Juvenile State Correctional Education Agencies

funds does not give adult agencies a funding edge; on a **per-student basis**, it helps adult agencies approach the higher funding level achieved by juvenile agencies.

Perkins Funding by Agency Designation

As discussed above, some correctional education agencies have LEA status because they operate under state departments of education (as correctional school districts), while others (operating under other state agencies) are designated as LEAs for Perkins Act purposes. In 1991–92, 25 adult agencies and 23 juvenile agencies had one or both of these LEA designations.

As shown in Tables 4.7 and 4.8, agencies that are designated as LEAs receive more Perkins funds than those that are not. Designation as an LEA for Perkins purposes seems an especially effective way to increase funding. For example, adult agencies with this designation received a total Perkins allocation of $54 per inmate, compared to $23 for correctional school districts, and $13 for agencies with neither designation. Comparable figures for juvenile agencies are $274, $108, and $92.

Table 4.7
Perkins Funding Received by Adult Correctional Education Agencies, by Agency Designation, 1991–92 (Number of Agencies in Parentheses)

	LEA for Perkins Purposes	Correctional School District	Neither
Average amount of:			
All Perkins funds	$217,842 (20)	$369,141 (9)	$114,457 (14)
1% set-aside funds	$153,300 (18)	$237,427 (9)	$113,094 (12)
Other Perkins funds	$79,570 (18)	$131,714 (9)	$14,570 (11)
Average daily inmate population	13,663 (19)	28,567 (8)	15,675 (19)
Average per-inmate amount of:			
All Perkins funds	$54 (18)	$23 (8)	$13 (14)
1% set-aside funds	$50 (16)	$13 (8)	$11 (12)
Other Perkins funds	$9 (16)	$10 (8)	$2 (11)

Source: 1993 Surveys of Adult and Juvenile State Correctional Education Agencies

The "Hold Harmless" Provision

A variety of changes in the 1990 Perkins Act affect states' ability to maintain corrections education funding at previous levels. First, changes in the allocations of Perkins funds from the old Act to the new, combined with an increase in Perkins appropriations, raised the amount of funds available to correctional facilities under the one-percent set-aside in most states. However, the use of 1990 Census data to replace older population estimates for each state resulted in some

Table 4.8
Perkins Funding Received by Juvenile Correctional Education Agencies, by Agency Designation, 1991–92 (Number of Agencies in Parentheses)

	LEA for Perkins Purposes	Correctional School District	Neither
Average amount of:			
All Perkins funds	$129,118 (19)	$100,892 (7)	$49,367 (12)
1% set-aside funds	$113,028 (18)	$66,221 (7)	$49,309 (11)
Other Perkins funds	$14,796 (16)	$30,123 (6)	0 (9)
Average daily inmate population	1,134 (17)	1,123 (7)	470 (12)
Average per-inmate amount of:			
All Perkins funds	$274 (16)	$108 (6)	$92 (10)
1% set-aside funds	$164 (15)	$55 (6)	$95 (9)
Other Perkins funds	$20 (14)	$39 (6)	$0 (8)

Source: 1993 Surveys of Adult and Juvenile State Correctional Education Agencies

states losing Perkins funds as a result of reduced population counts. The elimination of the set-asides for adult, disabled, and disadvantaged students also removed a source of support for corrections education agencies in some states.

As mentioned earlier, the Congress sought to keep these changes from adversely affecting corrections education by including a "hold harmless" provision in the 1990 Perkins Act. Two such provisions are currently in effect, one pertaining to the one-percent set-aside funds, and one to all funds corrections agencies receive. In this section, we examine the extent to which these provisions have worked. We focus on the provision applying to all Perkins funds received by state corrections education agencies.

Of 40 states providing relevant data, 11 reported that at least one agency (juvenile or adult) lost Perkins funds from 1990–91 to 1991–92. In one of the 11 states, declines at the juvenile level were compensated for by increases at the adult level, and the state system as a whole gained funding. In four other states, this type of counterbalancing may also have occurred, but we cannot tell from

the data. In the remaining six states — New Jersey, New York, South Carolina, Virginia, Wisconsin and Wyoming — the entire state system lost funds, in spite of the hold harmless provision.[37]

In some of these cases, the funding drop appears to be in compliance with the legislation. For example, New Jersey and New York lost funding under the 1990 Perkins Act due to population adjustments based on 1990 Census data, so these states had the right to reduce the corrections allocations proportionately.[38] In both states, corrections agencies lost a slightly higher percentage of funds than did the state as a whole, but these small differences may be due to idiosyncrasies in the allocation formulas (e.g., whether carry-over funds are included, whether allocations or expenditures are used). In New York, correctional education agencies also lost funds because the state's Commission on Corrections, an oversight agency, received funding under the new Act. In Virginia, the state limited the hold harmless provision (for funds other than one-percent funds) to Perkins expenditures made within a certain time period, and corrections education agencies were funded at a lower level as a result of expenditures that could not be made within the time limit.

In the remaining three states, the decline in funding may to be inconsistent with legislative intent. In Wisconsin, the state lost less than 10 percent of its Perkins funding, but corrections education lost 37 percent. In South Carolina, the state interpreted the hold harmless provision as applying only to the one-percent set-aside, and corrections education agencies lost funds that they had formerly received through the disabled and disadvantaged set-asides. In Wyoming, the state board decided to concentrate all Perkins funds within youth facilities, and has therefore excluded the adult agency from competing for Perkins funds. However, the juvenile agency was not awarded the additional funds that the adult agencies would have received had they not been excluded. We have not spoken to the fiscal authorities in these three states (although we have verified Perkins allocations by calling the state corrections education agencies). The departments of education in these states may have explanations for their decisions that can more fully support their current funding allocations. In any event, the hold harmless provision appears to have effectively safeguarded correctional education funds in most, but not all, states.

Within-Agency Use of Perkins One-Percent Funds

How are Perkins funds used? The State Correctional Education Agency Surveys provided administrators with a list of five inmate groups that could be targeted to receive Perkins one-percent funds, and eight curriculum or program improvement efforts. According to administrators, states tend to focus their Perkins one-percent funds on one or more targeted groups, and on a range of activities. Thirty-two of 36 responding adult agencies (89%) and 17 of 23 juvenile agencies (74%) spent their Perkins funds on at least one targeted inmate group, usually incarcerated women or those preparing for release (see Table 4.9).

Table 4.9
Percent (and Number) of State Correctional Education Agencies Using Perkins 1% Funds for Each Target Group and Each Curriculum or Program Improvement Effort, 1991–92

	Adult	Juvenile
Target group		
Incarcerated women	78 (28)	57 (13)
Inmates preparing for release	56 (20)	48 (11)
Released prisoners (after-release programs)	8 (3)	13 (3)
Inmates with disabilities	6 (2)	22 (5)
Inmates who have limited English proficiency	3 (1)	4 (1)
Curriculum or program improvement effort		
Equipment	67 (24)	57 (13)
Guidance/counseling services	53 (19)	52 (12)
General work readiness/post-employment skills	50 (18)	65 (15)
Academic-vocational integration	42 (15)	65 (15)
Staff development	39 (14)	39 (9)
Vocational performance standards and measures	28 (10)	39 (9)
"All aspects of the industry" curricula	3 (1)	13 (3)
Other curriculum development activities	22 (8)	22 (5)
Other uses		
Staff salaries	33 (12)	57 (13)
Programs in facilities without previous programs	17 (6)	—
Coordination with LEAs or postsecondary institutions	11 (4)	—
Number of states	36	23

Source: 1993 Surveys of Adult and Juvenile State Correctional Education Agencies

Juvenile agencies were somewhat less likely than adult agencies to target incarcerated women, but were more likely to target disabled inmates. All but two agencies spent funds on at least one of the eight listed curriculum and program improvement efforts (see Appendix Table A-4.4). Three-quarters of adult and

juvenile agencies spent funds on more than one effort, and over half spent funds on at least four separate curriculum efforts. The most common uses of funds in this category were guidance and counseling services, general work readiness/post-employment skills training, the integration of academic and vocational education, and vocational equipment.

We were surprised at the extent to which these agencies focus on academic-vocational integration, since integration is required for basic grant funds, but not for the correctional set-aside. On the other hand, integration is perhaps the most effective way to use the limited time correctional educators have to impart both basic academic and work skills, and may be popular for that reason.

Two-thirds of juvenile facilities, and more than one-third of adult facilities use Perkins funds for this program improvement effort, which suggests a fairly high level of responsiveness to the spirit of the Perkins Act. In general, Perkins funds use in juvenile facilities is more likely than that in adult facilities to mirror the priorities in the Perkins Act for vocational education programs (i.e., serving disabled students, integrated curricula, vocational performance standards, and "all aspects of the industry" curricula).

Participation in Perkins Planning and Implementation Efforts

In general, state correctional education agencies do not have a high level of involvement in state-level Perkins planning and implementation efforts. Although most correctional education agencies that received Perkins funds report that they have some input into the administration and implementation of the Perkins Act in their state, almost one-fifth of adult agencies and one-fourth of juvenile agencies do not (see Table 4.10).

For many agencies, involvement appears to be limited to the development of state plans for use of corrections funds; only about 50–60 percent report they are involved in other Perkins activities. The percentage of agencies that report involvement in the development of the state plan (about 60–70%) is also surprisingly low, since this is a mandated activity.

Effects of Changes in the 1990 Perkins Act

Both adult and juvenile agency administrators have generally positive perceptions of the effects of the Perkins Act requirements for academic and vocational integration, annual program evaluations, and the state system of performance standards on the administration and implementation of vocational education programs in their agencies (see Figures 4.1 and 4.2). Integration gets especially positive ratings at the juvenile level, where it is also more likely to be implemented. Opinions on states' interpretation of the hold harmless provision are more varied, and probably depend on how the state's interpretation affected agencies' funding levels.

Table 4.10
Percent (and Number) of Perkins-Funded Agencies That Have Had Each Type of Input Into the Perkins Planning and Decision-Making Process Since Passage of the 1990 Act

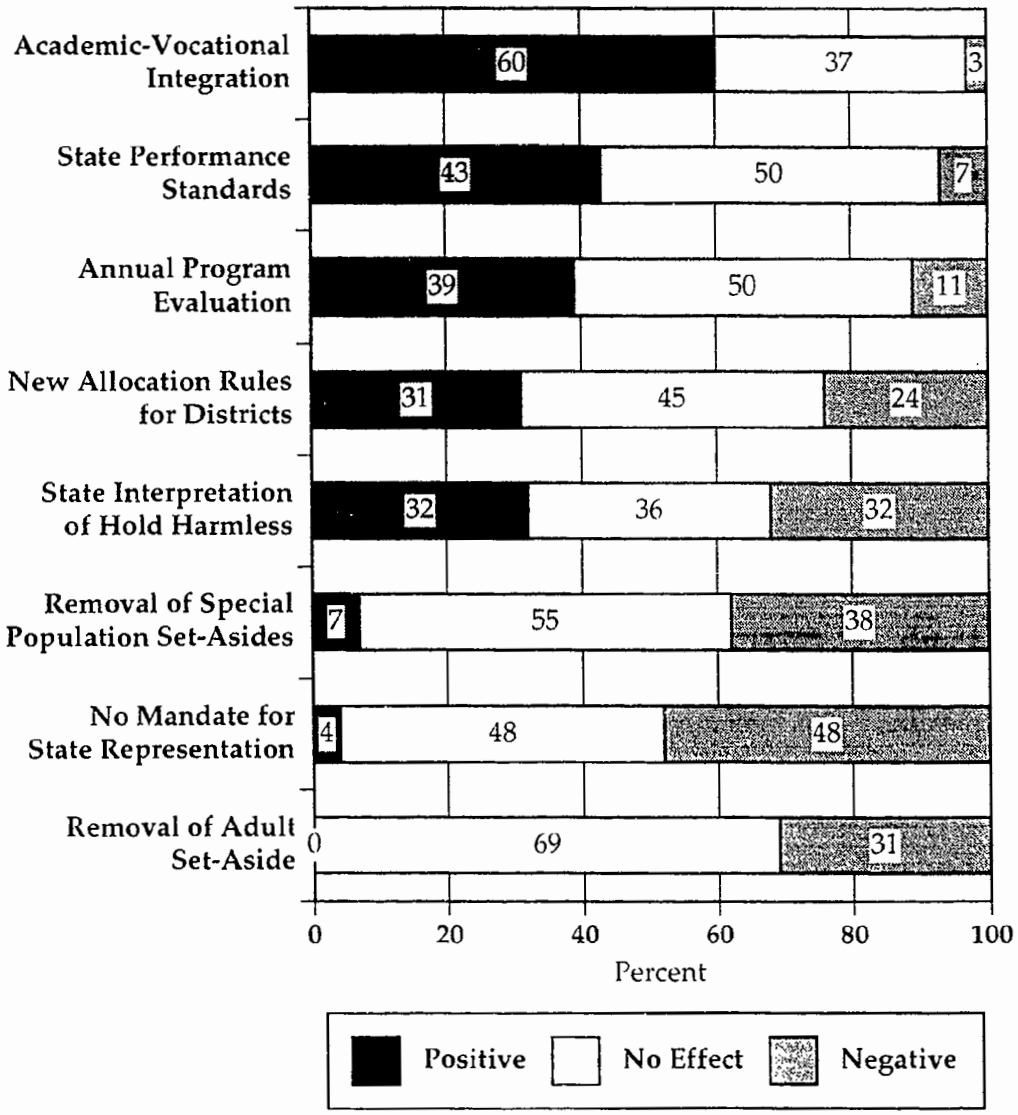
	Adult	Juvenile
Agency has had no input of any type	14 (5)	24 (8)
Input into development of state plan for corrections education	67 (24)	59 (20)
Attendance at regularly scheduled, continuing meetings with state vocational officials administering the Perkins Act	39 (14)	38 (13)
Representative on state council of vocational education	25 (9)	6 (2)
Input as to who should serve on committee of practitioners	11 (4)	12 (4)
Other type of input	11 (4)	35 (12)
Number of states	36	34

Source: 1993 Surveys of Adult and Juvenile State Correctional Education Agencies

The removal of the special population and adult set-asides was perceived as having negative effects (at the adult level), even though most state agencies did not lose Perkins funding as a result of these changes. It may be that state administrators perceive the loss of these set-asides as one less opportunity for correctional education agencies to leverage funds for their clients — regardless of its actual effect on funding levels.

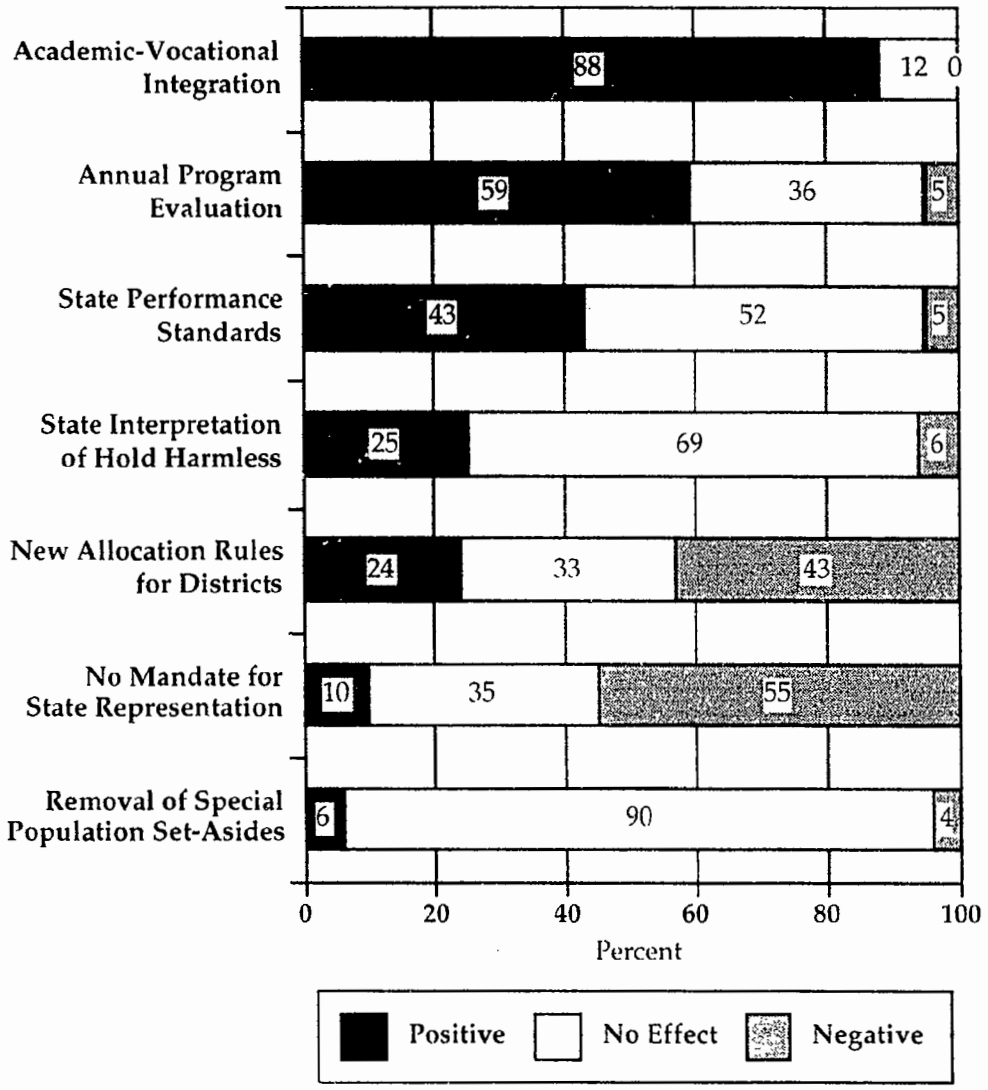
Finally, administrators at both adult and juvenile levels are unhappy about their lack of representation on state vocational education committees. It is difficult to say how and to what extent this representation would affect states' consideration of correctional agencies in their Perkins funding allocation decisions. However, if the Congress considers this group important enough to be classified as a "special population" and to receive a predetermined share of state Perkins funds, it seems appropriate to guarantee some form of representation. This would be in keeping with the emphases on participatory planning and the special populations oversight within the Act.

Figure 4.1
State Adult Correctional Education Directors' Opinions on the Effects of the 1990 Perkins Act



Source: 1993 Surveys of Adult and Juvenile State Correctional Education Agencies

Figure 4.2
State Juvenile Correctional Education Directors' Opinions on the Effects of the 1990 Perkins Act



Source: 1993 Surveys of Adult and Juvenile State Correctional Education Agencies

CONCLUSION

Education in correctional facilities faces a number of unique barriers and problems. For one thing, inmates tend to have extraordinary personal, social, and educational handicaps. Funding is a long-standing and growing problem, as the public financial burden caused by increasing incarceration rates combines with waning public support to limit expenditures for all rehabilitation programs.

Coordination of Programs

Correctional education programs must compete with prison industry and maintenance programs, counseling, drug and alcohol rehabilitation, and other "life skills" programs, as well as other activities that vie for inmates' time and institutional support. Vocational programs also compete with other education programs, particularly among inmates who are not functionally literate or high school completers.

In addition to these competing programs and services, vocational (as well as other) education programs face the day-to-day interruptions and inefficiencies created by security needs, overcrowded conditions, and the often unexpected transfer or release of inmates before programs can be completed. (Inmates are often transferred to minimize the formation of prison gangs.) Lack of public and political support, and staffing, space, and equipment shortages add to problems.

Competition between vocational education and prison-based work programs is common, but is also more amenable to policy action. There appears to be growing awareness of the need to ensure that vocational education is coordinated with prison industries and other education programs to avoid competition and duplication of effort. At present, however, coordination efforts (such as the TIE model) seem to be supported more in theory than in practice. **The Perkins Act should require that correctional education agencies demonstrate (in their state plans) active coordination of prison work, education, and vocational training programs.**

This coordination will allow vocational programs to serve more inmates; it may also help build support for vocational programs, as well-coordinated programs are more likely to contribute to institutional cost recovery efforts, and to provide more practical, "real world" skills development. For example, vocational programs may find it easier to obtain up-to-date equipment if that equipment will also be used to improve institutional productivity and profits. However, history has shown that this cooperative effort can be easily compromised, as training goals are quickly subsumed under institutional cost-recovery goals; inmates' output becomes more important than the training they receive. **To prevent these other goals from overtaking education goals, the Perkins Act should also require that states develop safeguards against this occurrence; these safeguards must be consistently and objectively monitored.**

Program Effectiveness

In spite of the problems they face, vocational programs are one of the most popular education programs in correctional facilities, second only to basic academic programs at the adult level, and closely following academic education, special education, and life and social skills at the juvenile level. At least one-third of inmates participate in these programs during their incarceration, and inmates believe these programs are more likely than prison work programs to improve their post-release job prospects.

Much of the popularity of vocational programs rests on the assumption that they are effective at increasing employment, and thus at reducing recidivism. We have only spotty evidence suggesting that correctional education in general (including vocational education) has positive effects on inmates' attitudes and behaviors. In general, the lack of solid evidence on the effectiveness of correctional vocational education, particularly of its effectiveness relative to other rehabilitation efforts, makes it difficult to determine the best allocation of the limited resources available for rehabilitation efforts.

Only with empirical evidence of programs' relative effectiveness can these resources be most productively and wisely spent. **Federal efforts in correctional education — in the Perkins Act and elsewhere — should support and encourage more rigorous evaluation of the outcomes and effectiveness of correctional education programs, including vocationally oriented programs.** As mentioned in the body of the chapter, the oversubscription to education programs provides a useful opportunity to assess outcomes by using random assignment methods.

Perkins Funding

Perkins funds are broadly disbursed to both adult and juvenile correctional education agencies in most states. While about half of these agencies receive Perkins funds in addition to the one-percent set-aside funds, the majority of their funding comes from the one-percent set-aside. Perkins funds also seem to be fairly well concentrated, rather than widely dispersed among the correctional population. As a result, fewer than half of inmates are reached by Perkins funds, but those who are reached appear to receive enough federal funds to "make a difference."

To some extent, this concentration of funds may result from the fact that Perkins one-percent funds are usually targeted on certain inmate groups, especially women and those preparing for release. They are also used for a number of program improvement efforts, including the integration of academic and vocational education. Correctional agencies, particularly juvenile agencies, appear to have responded fairly strongly to the Perkins mandate to integrate academic and vocational education.

In a few states, correctional education agencies have lost funding under the new Perkins Act, in spite of the hold harmless provisions. In some states the loss of funds occurred in full compliance with the law, but in three states compliance is not as clear. However, since we do not have complete information on these states' allocation decisions, we cannot say whether they have contravened the hold harmless provision; other explanations are possible.

The loss of the 1984 Perkins set-aside funds for adults and disabled and disadvantaged students is viewed by state administrators as having negative effects on corrections education programs. Many agencies did not receive these funds in the past, and among those that did, the hold harmless provision seems to have compensated for the funding loss in virtually all cases. Nevertheless, state agencies appear to be sensitive to the loss of any potential funding source; this sensitivity probably reflects concern over their tenuous position in public opinion, and over recent state cutbacks, which necessarily create a greater reliance on federal resources.

Perkins funding is notably larger among the 41 state correctional education agencies that are deemed LEAs for Perkins Act purposes, no doubt because these agencies are eligible for Perkins basic grant funds under this designation and because states that make this designation are likely to be more committed to correctional education in general.

Finally, state corrections education administrators have varying degrees of participation in Perkins planning and decision-making, with most having some input, but one-fifth to one-fourth having none. Given the importance of the correctional population in the Perkins Act, evident in their designation as a special population group, **state correctional education officials should be afforded more direct and consistent means of input into the Perkins planning and decision-making process.**

ENDNOTES

1 Maguire, K., Pastore, A.L., & Flanagan, T.J. (Eds.) (1993), *Sourcebook of Criminal Justice Statistics, 1992*, U.S. Department of Justice, Bureau of Justice Statistics.

2 Burnham, L.H., & Miro, R.J. (1994), *Meeting the Vocational Education Needs of the Correctional Population*, Report prepared for the National Assessment of Vocational Education, Library of Congress.

3 The survey provides data on correctional education in state adult and juvenile facilities in 1991–92. It is described in further detail in the Technical Appendix in Volume V.

4 Section 225.

5 Because of ambiguous language in the 1990 Perkins Act, currently two "hold harmless" provisions are in effect. The first, from Section 102 of the Act, applies to the one percent set-aside. The second, authorized through a separate amendment, applies to all Perkins funds received by a state's correctional education agencies.

6 These provisions are found in Section 417, Section 201, and Title VI, respectively.

7 This section draws heavily from Burnham & Miro (1994) and Maguire et al. (1993).

8 This does not mean that 81% of all inmates **become** repeat offenders. The recidivism rate is estimated to be between 50 and 70 percent (Taylor, J.M. (1993), Pell Grants for prisoners, *The Nation*, January).

9 Kirsch, I.S., et al. (1993), *Adult Literacy in America: A First Look at the Results of the National Adult Literacy Survey*, U.S. Department of Education, National Center for Education Statistics.

10 Burnham & Miro (1994), p. 6.

11 The reported number of crimes includes violent crimes and property crimes but excludes "victimless" crimes such as drunkenness, drug abuse, and prostitution. Data on crimes are from the U.S. Bureau of the Census (1993a), *Statistical Abstracts of the United States, 1993*, U.S. Department of Commerce.

12 This section draws heavily from Schlossman, S., & Spillane, J. (1992), *Bright Hopes, Dim Realities: Vocational Innovation in American Correctional Education*, National Center for Research in Vocational Education.

13 Ibid., pp. 3–4.

14 Lillis, J. (1994), Prison education programs reduced, *Corrections Compendium, 19*(3).

15 Coffey, O.D. (1992), Special considerations in assessing vocational education in corrections, in *Papers Presented at the Design Conference for the National Assessment of Vocational Education*, p. 235, U.S. Department of Education, Office of Research.

16 List extracted from Schlossman & Spillane (1992), pp. 52–53.

17 General Accounting Office (1993a), *Federal Prisons: Inmate and Staff Views on Education and Work Training Programs.*

18 Alabama Department of Post-Secondary Education (undated), *A Study of Alabama Prison Recidivism Rates of Those Inmates Having Completed Vocational and Academic Programs While Incarcerated Between the Years of 1987 thru 1991.* Another study of Alabama's programs that shows positive outcomes is reported in O'Neil, M. (1990), Correctional higher education: Reduced recidivism? *Journal of Correctional Education, 41*(1), 28–31.

19 Taylor (1993).

20 Study discussed in Coffey (1992).

21 Harer, M.D. (1993), *Recidivism Among Federal Prison Releasees in 1987: A Preliminary Report,* Federal Bureau of Prisons, Office of Research and Evaluation.

22 This study is discussed in more detail in the General Accounting Office report (1993a, pp. 16–17), which also outlines the limitations of this study.

23 Ibid.

24 See Gendron, D., & Cavan, J. (1988, April), *Inmate Education: The Virginia Model,* paper presented at the conference of the American Association of Community and Junior Colleges, Las Vegas, NV; and Grissom, G.R., & McMurphy, S. (1986), *College-Correctional Collaboration in the Treatment of Juvenile Offenders: Evaluation of a Program Model in Six Sites,* University City Science Center.

25 Schlossman & Spillane (1992), pp. 54–55.

26 Lillis (1994).

27 Local and private funds combined account for about one percent of state correctional education funds.

28 Coffey (1992).

29 Lillis (1994).

30 See U.S. Department of Education (1994), *National Assessment of Vocational Education: Interim Report to Congress,* pp. 96–99.

31 Lillis (1994).

32 General Accounting Office (1993a).

33 Burnham & Miro (1994).

34 This estimate is based on data from the 1993 Surveys of Adult and Juvenile State Correctional Education Agencies; federal government estimates range between 25,000–70,000 inmates, or roughly 3–10% of the prison population. See Zook, J. (1993, December), Amendment would cut off Pell Grants to prisoners, despite data that show education cuts recidivism, *The Chronicle of Higher Education*, p. A24.

35 Burnham & Miro (1994).

36 General Accounting Office (1993a).

37 Three of these states — New Jersey, New York, and Wisconsin — also allocated fewer one-percent funds to correctional agencies in 1991–92 than in 1990–91; since correctional agencies in these states received only one-percent funds, the discussion in the text explains these cases.

38 Data on state Perkins allocations are from Barro, S.M. (1994), *The Interstate Distribution of Federal Funds for Vocational Education*, pp. 3–4, report prepared for the National Assessment for Vocational Education, SMB Economic Research.

CHAPTER 5

MINORITY PARTICIPATION IN VOCATIONAL STUDENT ORGANIZATIONS

INTRODUCTION

In 1990, the U.S. Department of Education instituted a policy of support for and cooperation with ten federally recognized vocational student organizations (VSOs). The Department's recognition parallels similar efforts in the 1990 Perkins Act, where VSO membership in states' vocational education boards is explicitly acknowledged, support for VSOs is listed as an acceptable use of Perkins state leadership funds, and an examination of minority involvement in VSOs is mandated for the National Assessment of Vocational Education.

The Role of the VSOs

This interest in and support for VSOs derives from their role in working to foster the career, leadership, and personal development of vocational students. These basic goals are reflected in VSO operations and activities. Leadership skills are encouraged by having students participate in chapter planning and decision making, and by running for chapter offices. Fundraising and community service are also common activities that help build team spirit and individual initiative. In addition, local, regional, state, and national contests serve as a type of "vocational skill Olympics."

While VSO contests can vary, the national contests follow a set format in which students complete industry-developed written and performance tests of job-related skills. The written tests focus on relevant academic knowledge, while the performance tests assess vocational skills. For example, construction students may be required to build a cabinet or the corner of a house; marketing students may develop an advertising campaign; business students may perform wordprocessing or bookkeeping assignments; and livestock or crops raised by agriculture students may be judged on a variety of dimensions. Other performance tests assess leadership abilities through such activities as speeches and mock job interviews. While only a small fraction of students (e.g., less than 2% of the students in the Vocational Industrial Clubs of America, or VICA) may make it to the national competition, many more participate in state competitions (e.g., 20% of VICA students), with even more in regional and local competitions.

Because of such opportunities for student skill development, recognition, and leadership, VSO membership is widely regarded as a valuable adjunct to more formal education, particularly as a means to increase student motivation and professionalism. Although empirical evidence on the effectiveness of VSOs in fostering students' development is not available, their potential to do so seems

clear. Given this important educational role, VSO membership should be available to all students.

A concern with equitable VSO involvement motivated the Congress to include an analysis of "the degree to which minority students are involved in vocational student organizations" as part of the current National Assessment of Vocational Education.[1] This chapter examines minority participation in VSOs at both the secondary and postsecondary levels. It first reviews the nature and structure of the ten federally recognized VSOs. It then examines the level of minority participation in VSOs, in general, within individual schools, and across schools serving different concentrations of minority students. The chapter then reviews the factors that affect student participation, and ends with suggestions for encouraging minority participation in VSOs.

Data Sources

We have data on VSOs from three sources (each source is described in more detail in the Technical Appendix in Volume V). First, we surveyed approximately 2,000 secondary and postsecondary chapter advisors from all ten VSOs. Advisors were asked about VSO structure, membership, activities, funding, and factors that motivate or inhibit minority participation. Second, the 1992 follow-up to the National Education Longitudinal Study of 1988 (NELS) provides information on whether 1992 high school graduates participated in VSOs while in high school.[2] Finally, our 1992 Omnibus Survey asked secondary and postsecondary school administrators which VSOs have chapters in their schools, and what factors affect VSO participation in their schools.

VOCATIONAL STUDENT ORGANIZATIONS

Vocational student organizations bring together students interested in careers in specific vocational fields, providing them with a range of individual, cooperative, and competitive activities designed to expand their leadership and job-related skills. Some VSO activities are incorporated into the regular classroom curriculum, while others support curricular efforts outside the classroom. Student members take part in chapter meetings; serve on committees; run for elected positions; participate in local, state, or national workshops, conferences, and competitive events; help with chapter fund-raising activities and community service projects; and serve as mentors for other vocational students.

Organizational Structure

VSOs are organized into local chapters, which are typically formed by vocational students in a class or from several classes within a vocational program area. Each chapter is "sponsored" by an instructor who serves as the chapter faculty advisor. State departments of education typically support VSO activities by designating state advisors for each vocational program area, and by providing

administrative or financial assistance for local, state, and national meetings and conferences. Each VSO also has a national office, focusing on policies, guidelines and curricula to assist instructors in implementing VSO programs.

The Ten VSOs

The ten federally recognized VSOs include student organizations for each vocational program area, at the middle school, secondary (high school), postsecondary, and, in one case, the adult level. The VSOs associated with the vocational program areas are:

Agriculture —
- National FFA Organization (formerly Future Farmers of America)
- National Postsecondary Agricultural Student Organization (PAS)
- National Young Farmer Education Association (NYFEA)

Business/Office —
- Business Professionals of America (BPA)
- Future Business Leaders of America — Phi Beta Lambda (FBLA-PBL)

Consumer/Homemaking and Occupational Home Economics —
- Future Homemakers of America/Home Economics Related Occupations (FHA/HERO)

Marketing —
- Distributive Education Clubs of America (DECA)

Health Occupations —
- Health Occupations Students of America (HOSA)
- Vocational Industrial Clubs of America (VICA)[3]

Trades and Technical fields —
- Vocational Industrial Clubs of America (VICA)

Technology Education (formerly Industrial Arts) —
- Technology Student Association (TSA)

More information on the structure of each VSO is provided in Table 5.1. Although VSO participation is obviously dependent on student interest and enrollment in each vocational field, it also seems to be related to the length of time the VSO has been in existence. For example, business and the trades are large vocational program areas, and also have large VSO enrollments. However, FFA, the oldest VSO, has the largest membership, even though agriculture enrollments account for less than 10 percent of vocational enrollments at both the

Table 5.1
Overview of the Ten Nationally Recognized Vocational Student Organizations (VSOs)

Organization	Year Founded	Education Levels Served	Membership Size
National FFA Organization (FFA)	1928	Secondary Postsecondary[a]	400,000
Future Business Leaders of America — Phi Beta Lambda (FBLA-PBL)	1943	Middle Secondary (FBLA) Postsecondary (PBL)	275,000
Distributive Education Clubs of America (DECA)	1945	Secondary Postsecondary	180,000
Future Homemakers of America/Home Economics Related Occupations (FHA/HERO)	1945	Middle Secondary Postsecondary[a]	285,000
Vocational Industrial Clubs of America (VICA)	1965	Secondary Postsecondary	300,000
Health Occupations Students of America (HOSA)	1976	Secondary Postsecondary	40,000
Technology Student Association (TSA)	1977	Elementary Middle Secondary	70,000
National Postsecondary Agricultural Student Organization (PAS)	1979	Postsecondary	Not available
National Young Farmer Education Association (NYFEA)	1982	Adult	25,000
Business Professionals of America (BPA)	1988	Secondary Postsecondary	58,000

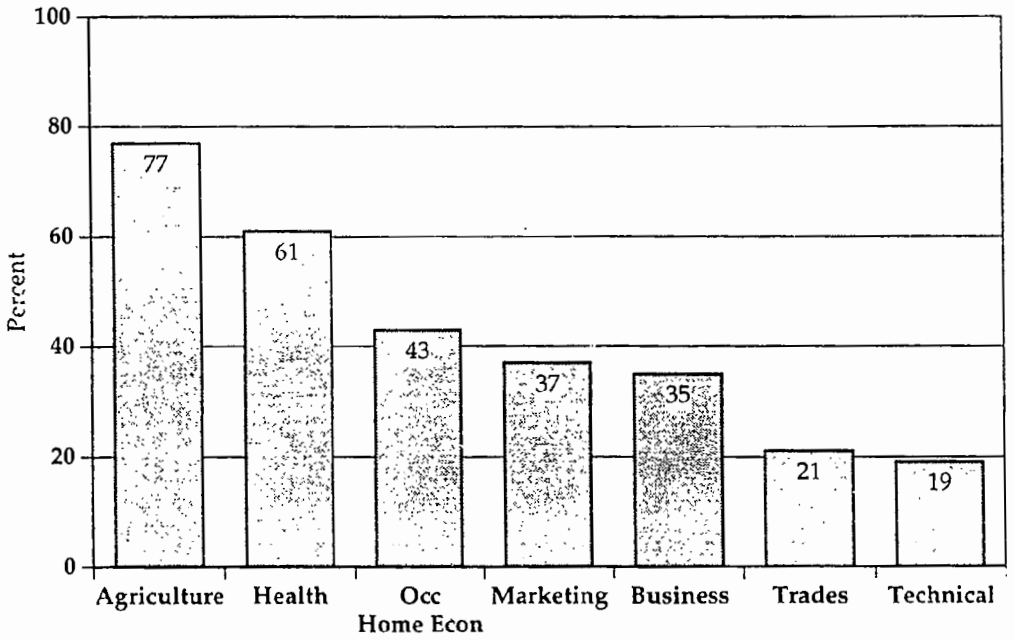
[a] Although FFA and FHA/HERO include postsecondary students, chapter lists used for our VSO survey showed no postsecondary chapters. As a result, this report does not include data on postsecondary FFA or FHA/HERO chapters.

Sources: Tao & Richard, 1993; NCCVSO, 1990

secondary and postsecondary levels. Similarly, home economics and consumer/homemaking education have relatively small enrollments, but the VSO serving these students (FHA/HERO) is one of the oldest, and has a large membership.

The differential appeal of individual VSOs is clear in Figure 5.1; secondary students in different vocational program areas have widely varying rates of participation in VSOs. Agriculture students are the most likely to join a VSO, with fully 77 percent of these students participating (most likely in FFA). Health students are also quite likely to join VSOs, while students in the trades and in technical fields are the least likely to join — only about 20 percent of these students participate in VSOs. Overall, about one-third of vocational students participate in VSOs.

Figure 5.1
Percent of Secondary Vocational Students in VSOs, by Program Area



NOTE: Vocational students are those earning at least 3 credits in the vocational program area.

Source: National Education Longitudinal Study, 1992

Prevalence of VSO Chapters

The data in Table 5.1 and Figure 5.1 do not reveal just how widespread VSOs are. In fact, 82 percent of public secondary schools and 51 percent of public two-year postsecondary institutions sponsor at least one VSO chapter.[4] The typical (average) public high school sponsors two VSO chapters, while the typical postsecondary institution sponsors one chapter.

While both vocational and comprehensive schools sponsor VSO chapters, vocational schools are slightly more likely to do so. At the secondary level, 93 percent of vocational schools have VSO chapters, compared to 81 percent of comprehensive high schools (an average of three and two chapters per school, respectively). At the postsecondary level, 61 percent of vocational schools (vocational-technical institutes and postsecondary area vocational schools) have VSO chapters, compared to 49 percent of community colleges (1.4 and .8 chapters per school).

Finally, even though enrollments in secondary vocational education are declining (see Volume II, Chapter 1), secondary-level VSOs are expanding. From 1987–88 to 1991–92, about one-quarter of secondary school districts expanded student leadership programs such as VSOs, while less than 5 percent discontinued programs. It appears that districts are using VSOs as an incentive to increase student interest and participation in vocational education. (Data are not available on postsecondary VSO trends.)

VSO Goals, Entry Criteria, and Activities

Our survey of VSO chapter advisors provides a more detailed picture of how VSOs operate. Here, we look at the goals chapter advisors emphasize, the criteria for joining VSOs, and chapter activities. We also examine whether VSOs in high-minority schools differ from other VSOs on these dimensions.

Goals of VSO Chapters. Consistent with the goals expressed by national VSO policy, chapter advisors report that their most important goals are those related to students' general development: enhancing student self-esteem, decision-making and problem-solving skills, leadership, and teamwork. Academic and occupational learning goals, while also regarded as important, are seen as secondary to these more general personal and professional development goals. These goals are remarkably consistent across all VSOs, including secondary and postsecondary chapters.

Criteria for Joining VSOs. VSO membership is most often voluntary. This is the case for 76 percent of secondary VSO chapters and 84 percent of postsecondary chapters. Mandatory participation, the less common option, typically occurs when students are required to join as part of their enrollment in a particular vocational class or program. However, most VSOs do have entry criteria, the

most common being enrollment in a related vocational course (see Table 5.2). For about one-third of VSOs, the ability to pay annual dues is also a membership criterion. (Dues are required of all VSO members, but may in some cases be paid by school activities fees, VSO fundraising or other sources; we examine dues and other VSO-related costs in more detail later.)

Table 5.2
Percent of VSO Secondary and Postsecondary Chapters With Each Entry Criterion

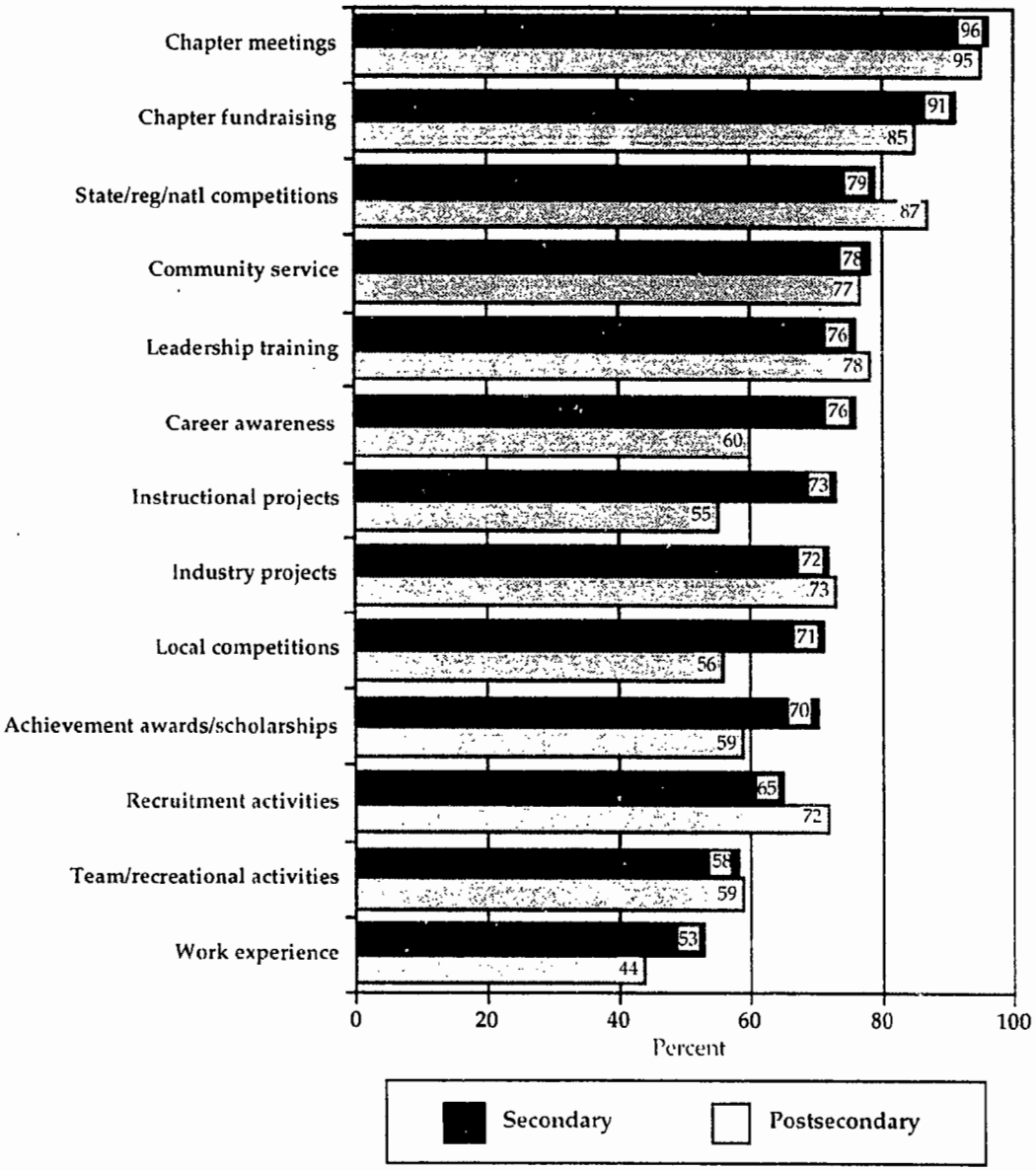
	Secondary Chapters	Postsecondary Chapters
No criteria	4	13
Enrollment in a specific vocational class	55	38
Enrollment in any vocational class in a specific program area	37	33
Ability to pay annual dues	36	35
Minimum level of schooling	21	8
Minimum age	3	6

Source: 1992 VSO Chapter Survey

VSO Chapter Activities. VSO chapters appear to be quite active. As Figure 5.2 shows, a majority of VSO chapters engage in a wide range of activities. In general, the most common are leadership activities related to the administrative and financial support of the chapter — chapter meetings and fundraising — followed by other leadership and general skill development activities. More traditional vocational activities (career awareness, work experience) are less common, as are more social activities. This pattern of activity coincides with stated priorities for goals related to student leadership and general skill development.

Secondary and postsecondary chapters tend to engage in the same types of activities, with a few exceptions that reflect the different needs and experiences of the populations they serve. For example, postsecondary VSOs are less likely to

Figure 5.2
Percent of VSO Chapters Engaging in Each Activity, by Educational Level



Source: 1992 VSO Chapter Survey

participate in career awareness and work experience programs, or in instructionally related projects. Postsecondary VSOs are also less likely to participate in local competitions, but are more likely to participate in regional, state, or national competitions. Finally, recruitment activities are more common at the postsecondary level, perhaps as a result of less mandatory participation at this level, and less opportunity for informal recruitment through peer interactions.

VSO chapters in schools with high, medium, and low minority populations do not differ on any of these dimensions — their goals, the extent to which participation is voluntary, the entry criteria they use, or the activities in which they engage.[5]

VSO PARTICIPATION COSTS

We will see later that the costs of VSO membership are one of the factors that discourage VSO participation, particularly for minority students. Here we review these costs, both overall and in schools serving different concentrations of minority students.

Student participation costs include chapter dues and other expenses associated with travel to and participation in VSO competitions. Even though only about one-third of advisors list chapter dues as an entry criterion, all VSO students are required to pay these dues. Students may also incur additional costs for uniforms, transportation to and accommodations at events other than competitions, child care, and other related expenses.

VSO Dues

VSO dues are generally modest, averaging about $9 per year at the secondary level, and about $13 at the postsecondary level. For students from middle- or high-income homes, these dues are quite affordable, but some students from low-income homes may consider them large enough to serve as a barrier to participation.

Schools sometimes try to lower students' costs by subsidizing student dues. In some chapters (roughly 10%), dues are routinely subsidized, in whole or part, for all students, while in other chapters (roughly 20%), dues are subsidized for low-income students. But most chapters — almost two-thirds — provide no student subsidies.

Since high-minority schools typically include inner-city schools serving low-income students, it is not surprising to find that more of these schools provide dues subsidies, although still fewer than half do so (see Table 5.3). Of course, we cannot tell from these data whether the amount of financial assistance is appropriate to student need, in either high-minority schools or others.

Table 5.3
Percent of Secondary and Postsecondary VSO Chapters Subsidizing Student Dues, Overall and by Minority Concentration of School

School Enrollment	Secondary	Postsecondary
Low minority	32	25
Medium minority	34	31
High minority	41	36
All Schools	37	36

Source: 1992 VSO Chapter Survey

Other Costs

Student dues, minimal as they are, do not cover all expenses incurred by VSO participation, particularly the relatively large expenses involved in traveling out-of-town for VSO competitions or other events. To cover these costs, most VSO chapters must acquire funds from other sources.

By far the most common additional source of funds is fundraising, used by at least 80 percent of all VSO chapters, and providing about $2,000 a year in additional income for each chapter involved in this activity (see Table 5.4). However, students are sometimes asked to provide additional funds as well; over one-quarter of VSOs collect additional student contributions, with an average of $75–$80 collected per student per year (most likely to cover students' expenses for out-of-town events).[6]

In general, while chapters in high-minority schools receive as much money from non-dues sources as do others, they receive less from fundraising and more from student, district, and advisor donations (see Appendix Table A-5.1). For example, secondary VSO chapters in high-minority schools receive an average of $8 per student from school activities fees, $56 from advisor donations, and $1,116 from fundraising; the respective amounts for low-minority schools are $4, $43, and $1,889. Among postsecondary VSO chapters, those in high-minority schools receive $21 per student from student contributions, $80 from advisors' donations, and $1,507 from fundraising; low-minority schools receive $15, $53, and $2,165.

Table 5.4
Percent of Secondary and Postsecondary VSOs Using Each Funding Source, and Average Amounts Earned From Each Source

Funding Source	Secondary		Postsecondary	
	Percent With Each Funding Source	Of Those, Average Amount Earned	Percent With Each Funding Source	Of Those, Average Amount Earned
School activity fees[a]	9	$46	23	$94
Student contributions other than dues[a]	30	$80	26	$75
Fundraising activities[b]	84	$1,790	80	$2,639
School district/institution[b]	21	$1,379	28	$2,044
Advisors' donations[b]	22	$248	23	$310
Business/industry donations[b]	16	$796	31	$1,004

[a] Annual amount per student
[b] Annual amount per chapter

Source: 1992 VSO Chapter Survey

Faculty Compensation

Some instructors who serve as VSO advisors are compensated for their extra time and effort. This clearly provides an incentive for teachers to serve as advisors, and thus can affect the extent to which chapters are available. Overall, only one-third of advisors receive extra pay, and fewer advisors in high-minority schools than in other schools receive extra pay (see Table 5.5). In other words, advisors in low-minority schools have more (financial) incentive than those in high-minority schools to sponsor VSO chapters.

Table 5.5
Percent of Secondary and Postsecondary Chapter Advisors Who Are Paid for Serving as Advisors, Overall and by Minority Concentration of School

	Secondary	Postsecondary
Low minority	38	46
Medium minority	26	23
High minority	22	22
All Schools	33	33

Source: 1992 VSO Chapter Survey

In short, the additional financial burdens that VSO participation places on students, teachers, and their schools suggest that low-income students, and schools with fewer funding resources, may be less likely to support VSO activities. To the extent that minority students fall into these categories, their participation is also likely to be affected. Moreover, many of the financial costs for participation are greater for students and teachers in high-minority schools than in other schools, creating a greater barrier to VSO participation in those schools. These financial burdens present very practical reasons why minority students may be less likely than other students to participate in VSOs. We now examine the extent to which minority students participate in vocational student organizations.

VSO PARTICIPATION

Rates of Participation

Students in secondary-level VSO chapters are 79 percent white and 21 percent minority; those in postsecondary-level chapters are 86 percent white and 14 percent minority. Clearly, these are not exclusively white organizations. But the real question is whether there are (proportionally) as many minority students in VSOs as there are minority students in general, or in vocational education. We examine these issues here, using data from **public** schools and students (except where noted).

At the secondary level, minority students are slightly underrepresented in VSOs compared to their representation in the student population; 26 percent of secondary students are minority, compared to 21 percent of VSO students (Table 5.6). Underrepresentation is greater at the postsecondary level, where 23 percent of all students are minority, compared to 14 percent of VSO students.

Table 5.6
Percent of Students in General, in Vocational Programs, and in VSOs in Each Race/Ethnic Group, by Educational Level

	Students in General	Vocational Students	Students in VSOs
Secondary			
White	74.0	74.0	78.6
All minorities	26.0	26.0	21.4
Black	11.5	11.6	12.6
Hispanic	9.4	9.4	6.2
American Indian	1.0	1.4	1.0
Asian	4.1	3.6	1.3
Postsecondary			
White	77.4	75.7	85.8
All minorities	22.6	24.3	14.2
Black	9.2	11.2	7.8
Hispanic	7.6	7.3	3.0
American Indian	0.8	0.9	2.6
Asian	5.0	4.9	0.6

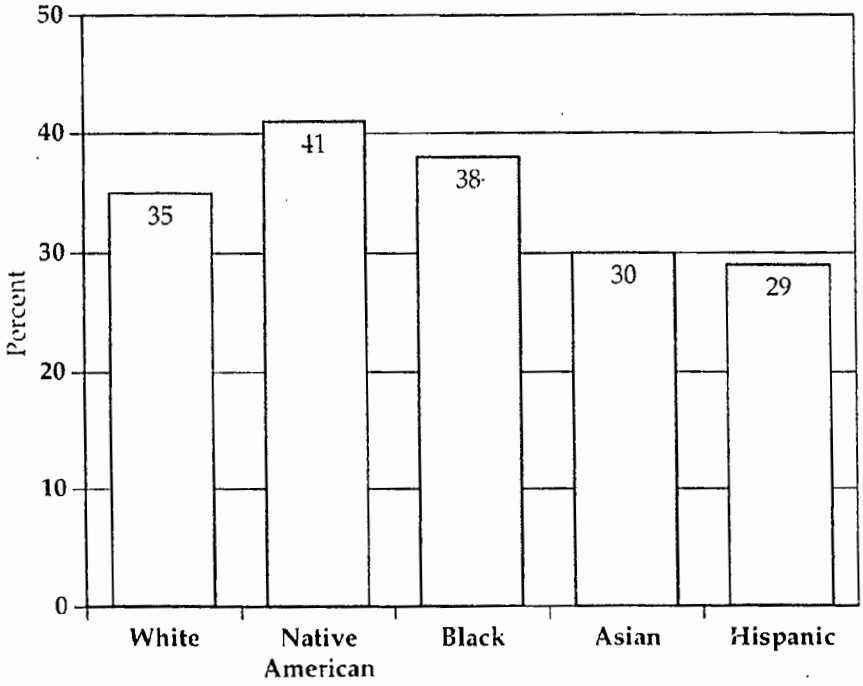
Sources: 1992 VSO Chapter Survey; National Postsecondary Student Aid Study, 1989–1990 (public institutions only); National Education Longitudinal Study, 1992

However, one could argue that students in general are not the most valid comparison group, since VSOs typically draw members only from students pursuing vocational education programs. To make a more relevant comparison, we used coursetaking records from public high school graduates to categorize

students as "vocational" if they earned at least three credits in one vocational program area, such as agriculture, business, health care, or the trades. Students' majors were used to categorize postsecondary students.

Comparing vocational students to VSO students reveals a statistically nonsignificant difference in the racial composition of the two groups. This essentially equitable VSO representation is also reflected in the fact that secondary students of different racial/ethnic groups have similar VSO participation rates (see Figure 5.3). However, minority postsecondary students are underrepresented in VSOs; minority students at this level are almost twice as likely to be enrolled in vocational programs as in VSOs (24% versus 14%; see Table 5.6).

Figure 5.3
Percent of Secondary Vocational Students in VSOs, by Student Race/Ethnicity



NOTE: Differences between all students groups are nonsignificant, p<.05.

Source: National Education Longitudinal Study, 1992

Finally, there are large differences in minority participation among the different VSOs, with minorities least likely to be enrolled in the agriculturally related VSOs, and most likely to be in the VSOs related to business, trades, and health (see Table 5.7). In some cases, these VSO participation patterns follow those for student enrollments in related vocational program areas, while in other cases, minority representation in VSOs is lower than it is in related vocational program areas. At the secondary level, minorities appear to be appropriately represented in VSOs related to agriculture, marketing, health, and trades, but under-represented in VSOs related to business and home economics.

Table 5.7
Percent of VSO Members and of Students in Related Vocational Programs Who Are Minority, by Educational Level

VSO (and related vocational program area)[a]	Secondary[b]		Postsecondary[c]	
	VSO Members	Vocational Students	VSO Members	Vocational Students
FFA (agriculture)	9	11	—	—
PAS (agriculture)	—	—	2	6
BPA (business)	23	28	8	33
FBLA/PBL (business)	23	28	21	33
DECA (marketing)	23	26	13	23
FHA/HERO (home ec)[d]	20	27	—	—
HOSA (health)	33	31	26	25
VICA (trades, technical)	23	24	22	30

[a] TSA and NYFEA were omitted because these VSOs have no related majors or concentrators.
[b] Enrollments for public school students who concentrate in a field, defined as earning at least three credits in that field.
[c] Enrollments for public, proprietary, and private school students majoring in the related field.
[d] Home economics enrollments also include students who earn any credits in consumer and homemaking, as well as those concentrating in occupational home economics.

Sources: 1992 VSO Chapter Survey; National Education Longitudinal Study, 1992; National Postsecondary Student Aid Study, 1989–1990.

At the postsecondary level, the program-area data include private and proprietary schools, which serve higher proportions of minorities, but rarely sponsor VSO chapters. Thus, the data probably overestimate the extent to which minorities are underrepresented within **public** institutions. With this caveat in mind, these data show that minorities are appropriately represented in health, slightly underrepresented in agriculture, and more underrepresented in business, marketing, and the trades.

In sum, the evidence suggests that in most cases minorities are participating in secondary-level VSOs at levels comparable to their level of participation in vocational education. Although representation is somewhat lower in VSOs related to business and home economics, these differences are not pronounced. A larger problem seems to exist at the postsecondary level. Here, minority students are not represented in VSOs in proportion to their numbers in vocational education, and this underrepresentation cuts across many VSOs and most minority groups (see Table 5.6).

To better understand the nature of minority representation in VSOs, it is useful to examine minority participation **within** schools and **between** schools. Instances of minority underrepresentation can occur at either level. Within-school underrepresentation arises when, within individual schools, minority students are less likely than their white counterparts to join VSOs. Between-school underrepresentation occurs when schools that serve large concentrations of minority students are less likely to sponsor VSO chapters. We examine each of these possibilities in turn.

Within-School VSO Participation Levels

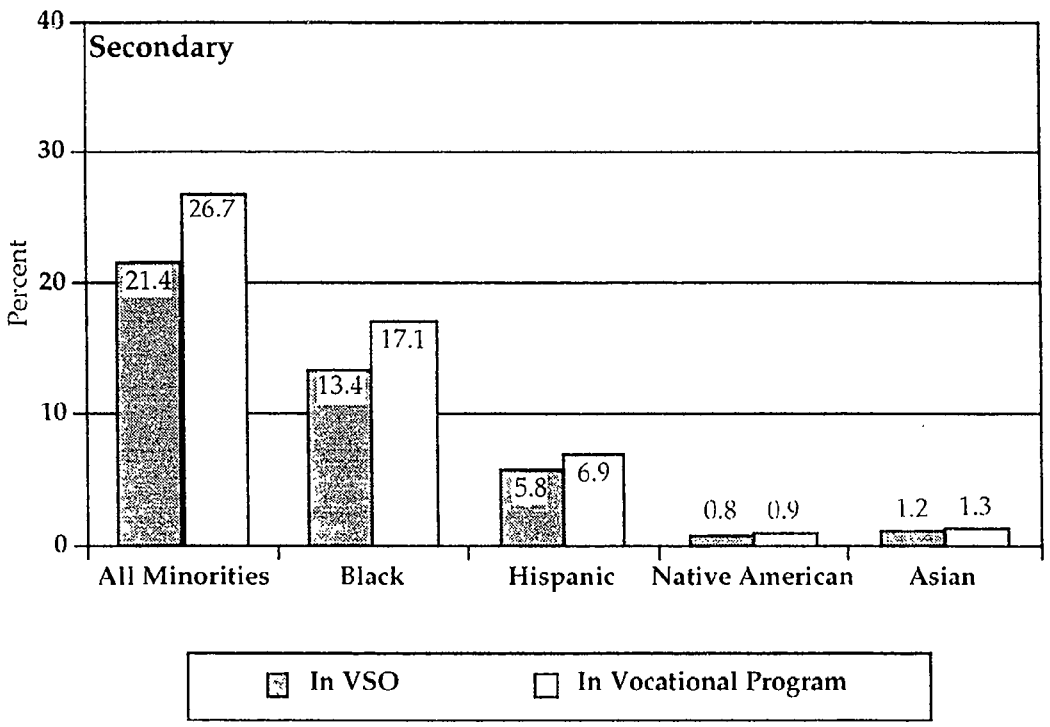
In those schools that have VSO chapters, are minority students less likely than other students to join? Apparently so — in both secondary and postsecondary schools with VSO chapters, minority students are less likely to be in VSOs than they are to be in the vocational programs related to those VSOs (see Figure 5.4). The disparity is most marked at the postsecondary level. Within schools, black and Hispanic students appear to be the most underrepresented in VSOs.[7]

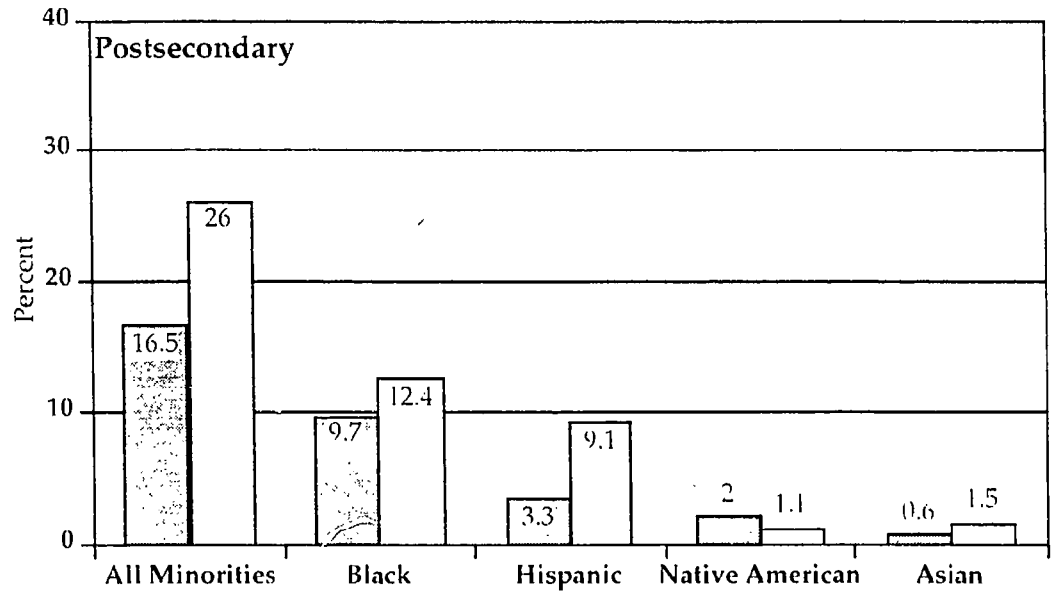
Between-School VSO Participation Levels[8]

Are VSOs distributed equitably across schools serving different concentrations of minority students? It appears that they are at the secondary level, but not at the postsecondary level.

For example, students in high-minority secondary schools are as likely to participate in VSOs as are students in other schools: From schools with the fewest minority students to those with the most, the percentage of vocational students in VSOs is 39, 32, 42, and 32 (based on NELS data). Also, the proportion of secondary schools that offer VSO chapters, and the average number of VSO

Figure 5.4
Percent of Minority Students in VSOs and in Vocational Programs, Among Schools With VSO Chapters

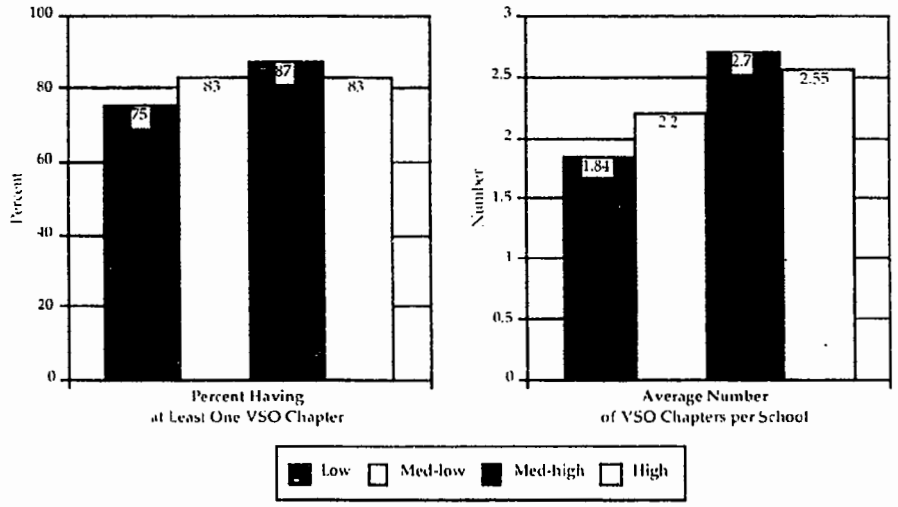




Source: 1992 VSO Chapter Survey

chapters offered, are no lower for high-minority schools than for other secondary schools (see Figure 5.5). In fact, high-minority secondary schools are **more** likely to offer VSOs, but this turns out to be because they are larger than other schools. Among secondary schools of the same size and with the same proportion of vocational students, high-minority schools are just as likely as other schools to offer VSO chapters, and offer the same number of VSOs. (See regression results in Table A-5.2 in the Appendix.)

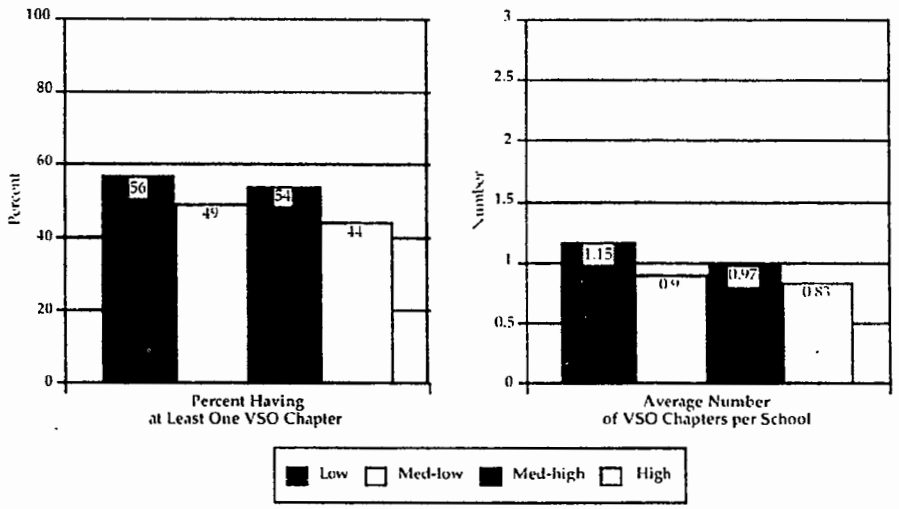
Figure 5.5
Percent of Secondary Schools With at Least One VSO Chapter, and Average Number of VSO Chapters Per School, by School Minority Concentration



Source: Omnibus Secondary School Survey

However, a different picture again emerges at the postsecondary level (see Figure 5.6). Among public two-year postsecondary institutions, fewer high-minority schools offer VSO chapters, and these schools offer fewer chapters than do other schools. These differences remain even when multiple regression procedures are used to control for school size and the proportion of vocational students in the school. (See Appendix Table A-5.2).

Figure 5.6
Percent of Postsecondary Schools With at Least One VSO Chapter, and Average Number of VSO Chapters per School, by School Minority Concentration



Source: Omnibus Postsecondary Institution Survey

Summary

At the secondary level, there are no overall differences in VSO participation by race/ethnicity. However, in those secondary schools that have VSO chapters, minority students are slightly less likely than others to participate in VSOs. This underrepresentation is not evident in overall participation data because it is counterbalanced by the fact that high-minority schools are more likely than other schools to offer VSO chapters (mainly because they tend to be larger than other schools).

At the postsecondary level, minorities are clearly underrepresented in VSOs, both within and between schools. First, minority students in postsecondary schools with VSO chapters are less likely than other students to join chapters. Second, postsecondary schools that serve higher concentrations of minority students sponsor fewer VSO chapters than other schools. These findings apply to **public** postsecondary institutions. Since private and proprietary institutions serve relatively large shares of minority students, but rarely offer VSO programs, this between-school difference would undoubtedly be even larger if these institutions were taken into account.

FACTORS THAT INFLUENCE STUDENT PARTICIPATION

Given the evidence of some minority underrepresentation in VSOs, the obvious question is **why** are these students underrepresented? This question is not likely to have a simple, single answer. A variety of influences may affect the rate at which minority students participate in these student organizations.

Our surveys asked secondary school vocational education administrators and VSO chapter advisors what factors they believe influence student participation in VSOs. In addition, chapter advisors were asked explicitly about factors affecting minority participation. (These data are summarized in Tables A-5.3, A-5.4, and A-5.5 in the Appendix.) These opinion data, plus the information discussed above on participation costs, provide evidence on the following factors which could underlie VSO participation patterns: students' interests and time constraints, participation costs, the support structure for VSOs, and (this must be considered) discrimination.

Student Interest and Time

At both the secondary and postsecondary levels, conflicts with other student activities and, to a lesser extent, a lack of student interest are rated as the factors that most frequently discourage VSO participation. For example, about three-quarters of secondary-level chapter advisors rated conflicts with students' jobs or other activities as factors discouraging VSO participation, and about two-thirds rated a lack of student interest as a discouraging factor. Conflict with other activities is not rated as a greater obstacle in high-minority schools than in other schools.

On the other hand, lack of student interest may be a more serious barrier among minority students, at least in high-minority postsecondary schools. Advisors in these schools were more likely than others to believe that a lack of student interest discourages VSO participation. "Attitudinal barriers" (e.g., a lack of self-esteem, negative attitude toward VSOs) also were rated as a greater barrier to minority participation within high-minority schools than in other schools.

Participation Costs

We saw earlier that VSO participation typically entails costs for students, faculty advisors, and schools or their districts. In addition, while high-minority schools are particularly likely to subsidize student dues, participation costs for students, advisors, and schools remain higher among VSO chapters in high-minority schools than in low-minority schools, especially because the latter have better results from fundraising efforts.

Not surprisingly, these participation costs are second only to lack of student interest and time as a factor that limits VSO participation. Moreover, at both secondary and postsecondary levels, costs are a greater barrier to participation among schools that enroll more minority students than among those enrolling fewer minority students. For example, 48 percent of VSO advisors from low-minority secondary schools rate the "costs associated with VSO membership" as a factor that discourages participation, compared to 58 percent of those from high-minority schools. Similarly, a lack of transportation services is rated as a barrier by 35 percent of advisors in low-minority secondary schools, and 44 percent of those in high-minority schools. At the postsecondary level, a lack of funds for VSO activities and an excess emphasis on fundraising are additional cost considerations that are more often rated as participation barriers among high-minority schools.

Support Structure

To function most effectively (and therefore be most useful and appealing to students), VSOs require more than just financial support. Teachers must be interested in serving as chapter advisors, school districts and states must provide assistance and leadership, and strong connections must be maintained with local business and industry. Inadequacies in these support structures are rated as barriers to VSO participation by relatively few respondents (about 20–25%), and are no more likely to be barriers to participation in high-minority schools than in other schools.

Discrimination

Official VSO policies are nondiscriminatory, and some VSOs make active efforts to recruit minority students. So "official" discrimination is not likely to be a factor contributing to the underrepresentation of minority students in VSOs. Also, when chapter advisors were asked to list factors that limit minority VSO participation, discrimination was not one of the factors they listed.

Nonetheless, more subtle forms of racial conflict and insensitivity may affect some students. "Student racial/ethnic differences" are rated as a barrier to VSO participation by a small but nontrivial proportion of chapter advisors (6–8%), and are seen as a greater barrier to participation in schools with more minority students; 4 percent of advisors in low-minority secondary schools rate student racial/ethnic differences as a barrier, compared to 12 percent in high-minority schools.

Our impression is that these racial tensions reflect the state of U.S. race relations in general, rather than a problem unique to VSOs. However, recognition of how these issues limit minority VSO participation can help practitioners and policymakers minimize their impact.

CONCLUSION

In general, VSOs are fair, equitable organizations dedicated to improving the leadership and skills of vocational students and the quality of the technical workforce. They provide valuable opportunities for students to develop their vocational skills, assume leadership roles and responsibilities, and earn recognition — opportunities that may be particularly valuable for vocational students, who are often looked down upon by their more academically oriented peers.

At the secondary level, minority students are represented in VSOs at levels comparable to their representation in vocational education in general, and schools that enroll different proportions of minority students are equally likely to offer VSO chapters. It thus does not appear that more limited resources within high-minority schools restrict VSO participation at the secondary level. However, within secondary schools, minority students are slightly less likely than other students to join VSOs. It is difficult to determine what would cause this within-school effect, without also causing a between-school effect, and the within-school effect is so small that it may not be reliable.

It is interesting that even though student interest and participation costs are more often viewed as barriers to VSO participation in high-minority secondary schools than in other schools, high-minority schools do not have lower levels of minority VSO participation. But students and faculty in high-minority schools do appear to — literally — pay a higher price for their VSO participation. Participating students and chapter advisors in high-minority schools have larger out-of-pocket expenses, and advisors are less likely to receive extra pay, than their counterparts in schools with fewer minority students. In other words, students and advisors in high-minority schools make a greater financial sacrifice to participate in VSOs.

At the postsecondary level, minority students are underrepresented in VSOs, both because fewer minority students within schools choose to join VSO chapters, and because schools serving higher concentrations of minority students, both public and private, are less likely to have VSO chapters. It would seem that at this level, differences in student interest and in their ability to afford VSO expenses both serve to limit VSO participation.

These inferences about the causes of minority students' underrepresentation in VSOs should be viewed cautiously. The data we have as a basis for these judgments are based solely on the opinions of school administrators and VSO chapter advisors. While knowledgeable about these issues, they may not be fully cognizant of the various factors that affect students' decisions.

With this caveat in mind, we suggest the following options in addressing minority participation in VSOs. First, at the secondary level, the fact that minority participation is at most slightly lower than expected may reflect

differences in student interest more than inequitable access. To increase minority participation rates among these students, **more active recruitment of minority students within individual secondary schools** appears to be the most logical path to pursue.

At the postsecondary level, low minority participation in VSOs may involve factors other than just student interest. Surprisingly, a lack of funds for VSO activities appears to be a greater problem for high-minority postsecondary schools than for those at the secondary level, perhaps because of more state or district support for secondary schools' VSO activities. To improve minority participation in postsecondary VSOs, **efforts need to focus on the resources and interests of minority students, and on the resources of institutions that serve relatively high proportions of minority students.**

Finally, whatever its effect on minority participation, there is a clear inequity in the costs that students (and sponsoring faculty members) must bear to participate in VSOs. To their credit, schools do attempt to minimize students' costs, but these efforts are only partially successful in leveling the playing field. **If more equitable VSO participation is a policy goal, a modest amount of federal or state support to cover costs for low-income students would probably help. Providing funds for students' transportation costs could be particularly helpful.**

ENDNOTES

1 Section 403 (b) (10).

2 The wording of the question about VSO participation on the NELS student survey was such that these data may produce biased estimates of student participation in VSOs. The Technical Appendix discusses this issue in more detail (see section on the High School Transcript Studies).

3 VICA is the one VSO that cuts across vocational program areas: It serves students preparing for careers in trade, industrial, technical, and health occupations.

4 The proportion of private schools that have VSO chapters is unknown, but is likely to be small, as VSOs are commissioned to serve public school students, and are therefore almost exclusively located in public institutions. Over 99% of secondary VSO chapters are in public schools, as are about 96% of postsecondary VSO chapters.

5 See the Technical Appendix for an explanation of how high, medium, and low minority schools are defined.

6 These per-student costs may be inflated. When estimating students' contributions, some advisors may have included monies from fundraising that were used to pay for individual students' travel expenses to VSO competitions. Nonetheless, students' travel costs can be very high, often in excess of the average figures reported here.

7 The data in Figure 5.4 should be considered tentative, since the ethnic/racial composition of students in related vocational areas was reported by VSO chapter advisors, who may not have reliable information on those enrollments. However, these are the best data available to address this issue.

8 For the analyses in this section, schools in the Omnibus and NELS surveys were classified by minority composition, with four categories representing minority concentration quartiles. On the Omnibus Survey, the quartiles for secondary schools were 0–1.74% minority; 1.75–10%; 10.1–40%; and greater than 40%. The postsecondary school quartiles were 0–7.19%; 7.2–16.8%; 16.9–31%; and greater than 31%. The NELS quartiles were 0–3%; 4–15%; 16–46%; and greater than 46%.

CHAPTER APPENDICES

CHAPTER 1 APPENDIX

Table A-1.1
Percent (and Number) of States Reporting Perkins Roles of State Officials Responsible for Part B of IDEA, Chapter 1, and LEP Programs, 1991–92

Activity	Official Responsible for: Part B, IDEA	Chapter 1	LEP Programs	All 3 Officials
Review applications submitted by eligible participants[a]	88 (43) 90 (43)	83 (43) 84 (43)	86 (43) 86 (43)	83 (40) 83 (40)
Develop state plan for Perkins Act	71 (34)	63 (32)	64 (32)	58 (28)
Review and approve state plan for Perkins Act	71 (34)	65 (33)	66 (33)	67 (32)
Attend meetings with state vocational education officials	60 (29)	45 (23)	50 (25)	46 (22)
Disseminate materials on addressing needs of special group	48 (23)	29 (15)	40 (20)	27 (13)
Monitor local programs	48 (23)	29 (15)	40 (20)	29 (14)
Certify local programs for appropriateness for special group	31 (15)	24 (12)	24 (12)	25 (12)
Other	10 (5)	8 (4)	8 (4)	8 (4)
None of the above[b]	0 (0)	4 (2)	4 (2)	0 (0)
Number responding	48	51	50	48

[a] The first row includes Puerto Rico, the remainder do not. Numbers of respondents for the first row are: 49, 52, 50, 48.

[b] The same two states report no input for Chapter 1 and LEP student representatives.

Source: Omnibus Secondary State Survey

Table A-1.2
Percent (and Number) of States Reporting Levels of Group Involvement in Developing the State System of Secondary Performance Standards and Measures, 1991–92

Possible Contributors	Not Consulted	Consulted 1–2 Times	Consulted Regularly or Played Major Role
State vocational education officials	0 (0)	0 (0)	100 (48)
Local vocational education administrators or staff	0 (0)	10 (5)	90 (43)
School administrators	0 (0)	14 (7)	86 (42)
Special population group representatives	0 (0)	17 (8)	83 (40)
Employer representatives	6 (3)	22 (11)	71 (35)
Parents	4 (2)	51 (25)	45 (22)
Students	12 (6)	47 (23)	41 (20)
Union representatives	25 (12)	35 (17)	40 (19)
State legislators or staff	55 (27)	22 (11)	23 (11)

Source: Omnibus Secondary State Survey

Table A-1.3
Percent (and Number) of States Helping Secondary Vocational Programs Provide Equal Access to Quality Vocational Education for Members of Special Populations

Type of Assistance	Prior to 1991–92	1991–92	1992–93
Provide districts with guidelines for determining whether special population students have equal access to vocational programs	71 (36)	68 (34)	88 (45)
Establish systematic procedure to monitor vocational education of special population students to ensure equal access and quality instruction	73 (37)	74 (37)	90 (46)
Provide districts with documents or procedures to inform parents of special population students about opportunities in vocational education	53 (27)	50 (25)	73 (37)
Other assistance	8 (4)	8 (4)	24 (12)
Any of the above	80 (41)	92 (46)	98 (50)
Number of states responding	51	50	51

Sources: Omnibus Secondary State Survey and Followup Survey

Table A-1.4
Percent (and Number) of States Reporting Levels of Group Involvement in Developing the State System of Postsecondary Performance Standards and Measures

Possible Contributors	Not Consulted	Consulted 1–2 Times	Consulted Regularly or Played Major Role
State vocational education officials	0 (0)	0 (0)	100 (46)
Vocational faculty or administrators	2 (1)	9 (4)	89 (40)
Special population group representatives	7 (3)	17 (8)	76 (35)
Employer representatives	27 (12)	36 (16)	38 (17)
Parents	36 (16)	31 (14)	33 (15)
Students	33 (15)	36 (16)	31 (14)
Union representatives	49 (22)	31 (14)	20 (9)
State legislators or staff	62 (28)	16 (7)	23 (10)

Source: Omnibus Postsecondary State Survey

Table A-1.5
Percent (and Number) of States Helping Postsecondary Vocational Programs Provide Equal Access to Quality Vocational Education for Members of Special Populations

Type of Assistance	Prior to 1991–92	1991–92	1992–93
Issue written information to institutions indicating methods to determine whether special population students have equal access to quality vocational education programs	52 (24)	51 (23)	70 (35)
Establish systematic procedure to monitor vocational education of special population students to ensure equal access and quality instruction	52 (24)	62 (28)	94 (47)
Provide information to special population students enrolled in postsecondary institutions about vocational opportunities in their schools	NA	NA	58 (29)
Provide LEAs with documents or procedures to inform special population students and their parents about opportunities in vocational education in their communities	NA	NA	64 (32)
Other assistance	2 (1)	2 (1)	14 (7)
Any of the above	63 (29)	67 (30)	98 (49)
Number of states responding	46	45	50

Sources: Omnibus Secondary State Survey and Followup Survey

Table A-1.6
Omnibus and Followup Survey Lists of Supplemental Services for Special Population Students[a]

Services	Disabled Students	Disadvantaged Students	LEP Students
Assessment of vocational interests/abilities/special needs	OF	OF	OF
Modified or adapted curriculum	OF	OF	OF
Guidance, counseling, and career development activities	OF	OF	OF
Guidance and counseling on transition to further education or employment	O	O	
Paraprofessionals or aides in regular vocational classes	OF	OF	OF
Employability/job placement services	OF	OF	OF
Targeted recruitment/outreach	F		OF
Adapted or simplified equipment	OF		
Modified facilities	OF		
Separate vocational classes	OF	OF*	
Learning disabilities testing	F		
Remedial/developmental education	F	OF	
Tutoring or other individual attention	O		
Enrollment in a vocationally oriented school-within-a school or alternative school		OF*	
Recruitment of out-of-school youth		OF*	
Summer job combined with vocational education		OF*	
Paid employment through a school-coordinated program (e.g., cooperative vocational education)		OF	
Stipend or subsidized employment in conjunction with vocational education (e.g., work study program)		OF	
Child care		OF	
Purchase of student materials, uniforms, and equipment		F	
Bilingual basic skills instruction			OF
Bilingual vocational instruction			OF
Vocational English-as-a second-language			F
Vocational tutoring by native speaker			O
Other	OF	OF	OF

[a] O=Omnibus Survey, F=Followup Survey
*Asked at secondary level only.

Sources: Omnibus Survey and Followup Survey

CHAPTER 2 APPENDIX

Table A-2.1
Percent of All Regular Districts, Area Vocational Schools, and Postsecondary Institutions That Offered Each Service for Single Parents, Single Pregnant Women, and Displaced Homemakers in 1991–92

Activity or Service	Regular Districts	Area Vocational Schools	Two-Year Postsecondary Institutions
Paraprofessionals or aides	8	29	26
Separate vocational classes	6	12	—
Separate life skills classes	11	27	51
Extended day or evening offerings	8	30	—
Basic skills instruction in vocational classes	23	55	57
Guidance, counseling, and career development activities	34	67	91
Guidance/counseling on transition to further education or employment	31	66	88
Student recruitment activities	18	54	82
Child care services	10	25	62
Transportation services	14	29	38
Job placement services	19	60	79

Source: Omnibus Surveys of School Districts (Version A), of Vocational Schools and of Postsecondary Institutions

Table A-2.2
Percent (and Number) of Administrators Reporting Various Amounts of Time Allocated for Each Perkins-Related Activity in 1991–92

Activity	Too Little Time Allocated	In-Between	Sufficient Time Allocated
Managing 10.5% funds			
Monitoring local programs	40 (21)	44 (23)	15 (8)
Evaluating effectiveness of local programs	37 (19)	53 (27)	10 (5)
Distributing, managing, and monitoring local program funds	14 (7)	52 (26)	34 (17)
Developing annual plan for the use of funds	12 (6)	50 (25)	38 (19)
Needs Assessments			
Reviewing local agencies' plans for meeting training needs of men and women in nontraditional jobs	25 (13)	58 (30)	17 (9)
Reviewing local vocational education programs for sex stereotyping/bias	24 (12)	66 (33)	10 (5)
Reviewing proposed actions on grants, contracts, and State Board policies	41 (21)	41 (21)	18 (9)
Assessing state progress in sex equity	25 (13)	63 (32)	12 (6)
Local Assistance			
Providing technical assistance and advice to local educators	23 (12)	65 (33)	12 (6)
Assisting in program implementation at the local level	36 (18)	56 (28)	8 (4)
Outreach Services			
Disseminating information on programs	20 (10)	63 (32)	18 (9)
Developing outreach programs/activities	25 (13)	53 (27)	22 (11)

Source: National Alliance State Sex Equity Administrator Survey

Table A-2.3
Percent (and Number) of Administrators Who Rate the 1990 Perkins Act as Having Had Various Effects on Their Programs, Spring 1992 and Spring 1993 (Matched Samples)

Provision	Too Early to Tell[a]	No Effect	Negative Effect	Positive Effect
Spring 1992				
Removal of adult set-asides	48 (12)	54 (7)	46 (6)	0 (0)
Removal of disadvantaged and disabled set-asides	44 (11)	50 (7)	43 (6)	7 (1)
Required state match for state administration funds	26 (6)	59 (10)	29 (5)	12 (2)
Emphasis on serving special populations	23 (6)	15 (3)	10 (2)	75 (15)
Emphasis on preparatory services	15 (4)	27 (6)	0 (0)	73 (16)
Emphasis on tech-prep programs	42 (11)	20 (3)	0 (0)	18 (12)
Requirement for competitive grants	8 (2)	54 (13)	13 (3)	33 (8)
Implementation of state system of standards and measures	54 (14)	8 (1)	0 (0)	92 (11)
New roles and responsibilities for Perkins sex equity administrator	24 (6)	16 (3)	10 (2)	74 (14)
Emphasis on vocational and academic integration	38 (10)	19 (3)	0 (0)	81 (13)
All changes combined	60 (15)	10 (1)	0 (0)	90 (9)
Spring 1993				
Removal of adult set-asides	26 (7)	50 (10)	40 (8)	10 (2)
Removal of disadvantaged and disabled set-asides	18 (5)	30 (7)	52 (12)	17 (4)
Required state match for state administration funds	3 (1)	48 (14)	34 (10)	17 (5)
Emphasis on serving special populations	10 (3)	30 (8)	7 (2)	63 (17)
Emphasis on preparatory services	17 (5)	24 (6)	12 (3)	64 (16)
Emphasis on tech-prep programs	27 (8)	27 (6)	5 (1)	68 (15)
Requirement for competitive grants	4 (1)	19 (5)	11 (3)	70 (19)
Implementation of state system of standards and measures	41 (12)	29 (5)	0 (0)	71 (12)
New roles and responsibilities for Perkins sex equity administrator	10 (3)	15 (4)	12 (3)	73 (19)
Emphasis on vocational and academic integration	29 (10)	12 (3)	0 (0)	88 (21)
All changes combined	18 (5)	13 (3)	4 (1)	83 (19)

[a] "Too early to tell" percentages are based on the full sample. All other percentages are based on only those who did not think it was "too early to tell."

NOTE: Table A-7.4 in the Interim Report lists responses from the larger 1992 sample.

Source: National Alliance State Sex Equity Administrator Survey and Follow-up

Table A-2.4
Percent (and Number) of Administrators Who Rate the 1990 Perkins Act as Decreasing, Not Changing, or Increasing Each Program Feature, or Who Think It Is Too Early to Make this Judgment, Spring 1992 and Spring 1993 (Matched Samples)

Program	Too Early to Tell[a]	Decrease	About the Same	Increase
Spring 1992				
Enrollments in Perkins-funded programs	27 (7)	5 (1)	74 (14)	21 (4)
Community outreach efforts	16 (4)	5 (1)	71 (15)	24 (5)
Consistency of local program quality	31 (8)	6 (1)	72 (13)	22 (4)
Ability to reach students in greatest need of services	35 (9)	0 (0)	59 (10)	41 (7)
Training women for entry into high technology occupations	27 (7)	0 (0)	68 (13)	32 (6)
Overall level of local program quality	31 (8)	6 (1)	61 (11)	33 (6)
Professional development for local personnel	12 (3)	9 (2)	50 (11)	41 (9)
Role of administrator in program management	15 (4)	0 (0)	32 (7)	68 (15)
State curriculum development efforts	28 (7)	17 (3)	56 (10)	28 (5)
State oversight of local programs	15 (4)	4 (1)	32 (7)	64 (14)
State technical assistance to localities	8 (2)	21 (5)	25 (6)	54 (13)
Responsiveness to sex equity issues at the state level	15 (4)	0 (0)	59 (13)	41 (9)
Provision of services most needed by:				
Single pregnant women	27 (7)	5 (1)	79 (15)	16 (3)
Single parents	27 (7)	5 (1)	79 (15)	16 (3)
Displaced homemakers	27 (7)	5 (1)	84 (16)	11 (2)
Nontraditional program students	35 (9)	0 (0)	82 (14)	18 (3)

(Continued)

Table A-2.4 (continued)
Percent (and Number) of Administrators Who Rate the 1990 Perkins Act as Decreasing, Not Changing, or Increasing Each Program Feature, or Who Think It Is Too Early to Make this Judgment, Spring 1992 and Spring 1993 (Matched Samples)

Program	Too Early to Tell[a]	Decrease	About the Same	Increase
Spring 1993				
Enrollments in Perkins-funded programs	17 (5)	8 (2)	42 (10)	50 (12)
Community outreach efforts	3 (1)	14 (4)	36 (10)	50 (14)
Consistency of local program quality	11 (3)	8 (2)	33 (8)	58 (14)
Ability to reach students in greatest need of services	7 (2)	0 (0)	48 (11)	59 (16)
Training women for entry into high technology occupations	3 (1)	7 (2)	32 (9)	61 (17)
Overall level of local program quality	11 (3)	0 (0)	38 (9)	62 (15)
Professional development for local personnel	4 (1)	15 (4)	22 (6)	63 (17)
Role of administrator in program management	3 (1)	4 (1)	32 (9)	64 (18)
State curriculum development efforts	11 (3)	25 (6)	50 (12)	25 (6)
State oversight of local programs	0 (0)	27 (8)	23 (7)	50 (15)
State technical assistance to localities	3 (1)	19 (5)	26 (7)	56 (15)
Responsiveness to sex equity issues at the state level	3 (1)	7 (2)	32 (9)	61 (17)
Provision of services most needed by:				
Single pregnant women	3 (1)	7 (2)	43 (12)	50 (14)
Single parents	3 (1)	4 (1)	36 (10)	61 (17)
Displaced homemakers	3 (1)	3 (1)	38 (11)	59 (17)
Nontraditional program students	7 (2)	0 (0)	30 (8)	70 (19)

[a] "Too early to tell" percentages are based on the full sample. All other percentages are based on only those who did not think it was "too early to tell."

NOTE: Table A-7.5 in the *Interim Report* lists responses from the larger 1992 sample.

Source: National Alliance State Sex Equity Administrator Survey and Follow-up

CHAPTER 3 APPENDIX

Table A-3.1
1990 Perkins Section 103 Grant Recipients: Program Characteristics

Grantee	Tribe(s)	Project Duration (years)	Total Funding	Planned Number of Trainees	Educational Level	Training Fields	Location of Tr	
							State	Region
NANA Corp.	Native Alaskans, Aleuts, Inupiats, and others	2	$240,096	94/yr	Adult	Managment, Drill operators, Blasters, Equipment operators	AK	West
Kawerak, Inc.	Native Alaskans of Bering Straits Region	3	$72,558	150	Adult	Mining operations, Managment, Drill operators, Blasters, Equipment operators	AK	West
Lee Chee Chapter	Navajo	3	$266,682	140	Adult	Accounting, Hospitality, Tourism, Marine trades, Building trades, Custodial, Computer	AZ	West
Leupp Schools, Inc.	Navajo	3	$447,896	60	Dropouts	Basic skills, Pre-employment skills, Entre-preneurship, Electronic assembly	AZ	West
Rough Rock School Board, Inc.	Navajo	3	$105,462	80–100 per yr	Secondary / Dropout	Welding, Drafting, Carpentry	AZ	West

Table A-3.1 (continued)
1990 Perkins Section 103 Grant Recipients: Program Characteristics

Grantee	Tribe(s)	Project Duration (years)	Total Funding	Planned Number of Trainees	Educational Level	Training Fields	Location of T	
							State	Region
Salt River Pima Maricopa Indian Community	Pima, Maricopa, and others	3	$156,660	45	Secondary/ Dropout/ Adult	Not available	AZ	West
Soboba Band of Indians	Soboba	3	$251,436	30	Post-secondary	Medical technician, Fire science, Security guard, Management, Computer, Secretarial, Basic skills	CA	West
Penobscot Indian Nation	Penobscot	3	$245,964	335	Adult	Day care management, Small business management, Technical education, Skill upgrading, Basic skills	ME	East
Bay Mills Community College	7 Regional tribes	3	$338,210	180	Post-secondary/ Adult	Women's advocacy, Tribal enterprise, Employment consortium	MI	Midwest
Grand Traverse Band of Indians	Chippewa and Ottawa	3	$279,023	50	Adult	Secretarial, Computer, Hospitality	MI	Midwest

Table A-3.1 (continued)
1990 Perkins Section 103 Grant Recipients: Program Characteristics

Grantee	Tribe(s)	Project Duration (years)	Total Funding	Planned Number of Trainees	Educational Level	Training Fields	Location of	
							State	Region
Mississippi Band of Choctaw Indians	Choctaw	3	$552,689	346	Post-secondary/ Adult	Cable assembly, Wiring harness assembly, Emergency medical technician, Nursing assistant, Cashier/retail sales	MS	South
Chippewa-Cree Tribe Stone Child College	Chippewa-Cree	3	$304,153	60	Post-secondary	Not available	MT	West
Little Big Horn Community College	Crow	3	$293,707	90	Post-secondary/ Adult	Not available	MT	West
Fort Belknap Community Council	Gros Ventre and Assiniboine	3	$216,208	48	Post-secondary/ Adult	Child development, Guidance Counseling	MT	West
Fort Peck Community College	Assiniboine and Sioux	3	$156,930	270	Post-secondary	Computer, Building trades, Small business, Agriculture, Pre-nursing	MT	West
Salish Kootenai College	Salish and Kootenai	3	$528,136	780	Post-secondary	Secretarial, Computer, Building trades, Forest technology, Nursing skills, Basic skills	MT	West

Table A-3.1 (continued)
1990 Perkins Section 103 Grant Recipients: Program Characteristics

Grantee	Tribe(s)	Project Duration (years)	Total Funding	Planned Number of Trainees	Educational Level	Training Fields	Location of T	
							State	Region
Omaha Tribe	Omaha Tribe of Nebraska	3	$196,610	69	Post-secondary	Multi-occupational	NE	Midwest
Nebraska Indian Community College	Omaha, Santee, Sioux, and Winnebago	3	$270,791	150	Post-secondary	Carpentry, Computer science, Electrical, Masonry, Plumbing	NE	Midwest
Las Vegas Paiute Tribe	Paiute	3	$401,710	150	Post-secondary/ Adult	Medical assistant, Machine technician, Cut and sew, Computer repair	NV	West
Pyramid Lake Paiute Tribe	Paiute	1	$45,610	NA	Secondary	Agricultural production, Agricultural mechanics	NV	West
Coyote Canyon Rehabilitation Center	Navajo	3	$296,585	100	Adult	Coal production, Food service, Custodan	NM	West
Alamo Navajo School Board, Inc.	Navajo	3	$230,453	48	Adult	Ranch/ Woodland management, Multi-occupation al	NM	West

Table A-3.1 (continued)
1990 Perkins Section 103 Grant Recipients: Program Characteristics

Grantee	Tribe(s)	Project Duration (years)	Total Funding	Planned Number of Trainees	Educational Level	Training Fields	Location o	
							State	Region
Santa Fe Indian School	Pueblo, Navajo, Mescalero, Hopi, Jicarilla, others	3	$303,766	60	Secondary	Business, Graphics, Computers, Drafting, Multi-occupational	NM	West
Tahatchi Special Education Center	Navajo	3	$255,896	45	Adult	Woodworking, Agriculture/ livestock, Janitorial services	NM	West
Turtle Mountain Community College	Chippewa	3	$201,096	35	Post-secondary / Adult	Entrepreneurial, Office education, Child development, Crafts and technologies, Welding	ND	Midwes
Little Hoop Community College	Sioux	3	$376,150	170	Secondary / Post-secondary	Mid-management, Pre-employment, Work skills, Game and fish management	ND	Midwes
Comanche Tribe	Comanche	2	$231,507	100	Adult	Job orientation, Medical technician, LPN, Cashier, Customer service, Graphic arts, Computer science, Management	OK	Midwes

Table A-3.1 (continued)
1990 Perkins Section 103 Grant Recipients: Program Characteristics

Grantee	Tribe(s)	Project Duration (years)	Total Funding	Planned Number of Trainees	Educational Level	Training Fields	Location of Tribe(s)		
							State	Region	Locale
Inter-Tribal Council, Inc.	Shawnee, Miami, Modoc, Ottawa, Peoria, others	3	$200,158	65	Adult	Truck driver training, Hospitality management, Diesel mechanics, Secretarial, Accounting, Tribal enterprise	OK	Midwest	Rural
Kickapoo Vo-Tech Program, Inc.	Kickapoo, Sac, Fox, Iowa, Pottawatomie, others	4	$256,761	24	Adult	Basic skills, Multi-occupational	OK	Midwest	Rural/ Suburban
Cherokee National of Oklahoma	Cherokee	2	$342,286	37	Adult	Office occupations, Electronics, Horticulture/ landscaping, Basic skills	OK	Midwest	Rural
Cheyenne River Community College	Sioux	3	$363,884	150	Post-secondary	Not available	SD	Midwest	Isolated Rural
Oglala Lakota College	Oglala Lakota	3	$507,385	80	Post-secondary	Accounting, Carpentry, Computer science, Management/entrepreneurship, Natural resources, Secretarial	SD	Midwest	Isolated Rural

(continued)

Table A-3.1 (continued)
1990 Perkins Section 103 Grant Recipients: Program Characteristics

Grantee	Tribe(s)	Project Duration (years)	Total Funding	Planned Number of Trainees	Educational Level	Training Fields	Location of Tribe(s)		
							State	Region	Locale
Sisseton-Wahpeton Community College	Sioux	3	$270,673	75	Post-secondary	Building trades, Computer science, Basic skills	SD	Midwest	Isolated Rural
Utah Development Council, Inc.	Navajo and Ute	3	$196,943	117	Secondary/ Post-secondary/ Adult	Building trades, Health occupations, Service technicians, Office occupations, Recreation/hospitality	UT	West	Isolated Rural
Lummi Indian Business Council	Lummi	3	$349,265	68	Post-secondary/ Adult	Basic skills, Marine trades, Building trades, Heavy equipment, Accounting, Data processing	WA	West	Suburban/ Urban
Nisqually Indian Tribe	Nisqually	3	$209,828	80	Post-secondary/ Adult	Business/retail, Maintenance, Carpentry, Security, Basic skills	WA	West	Rural/ Suburban
Lac Courte Oreilles Ojibwa Community College	Ojibwa	3	$325,743	30	Secondary/ Post-secondary	Carpentry, Masonry, Electrical, Pre-vocational	WI	Midwest	Isolated Rural
Oneida Tribe of Wisconsin	Oneida	3	$294,050	110	Post-secondary/ Adult	Basic skills, Lab technicians, Competency upgrading	WI	Midwest	Rural

Sources: Hudis (1993); Office of Vocational and Adult Education, U.S. Department of Education

CHAPTER 4 APPENDIX

Table A-4.1
Characteristics of the Prison Inmate Population and the General Population (Age 16 or Older) (Percent)

	Inmate Population	General Population
Sex		
Male	94	48
Female	6	52
Race/Ethnicity		
Black	44	11
White	35	76
Hispanic	17	10
Native American	2	1
Asian	1	2
Age		
16–18	2	5
19–24	21	13
25–39	57	33
40–54	17	23
55–64	2	10
65 or older	1	16
Income the year before arrest[a]		
No income	3	5
Less than $3,000	13	8
$3,000–$9,999	24	16
$10,000–$24,999	35	33
$25,000 or more	26	38
Education level[b]		
Less than high school	49	23
High school graduates	51	77

NOTE: Percentages may not add to 100 because of rounding.

[a] General population income data are for males age 15 or older.

[b] According to the Bureau of Justice Statistics, 61% of the prison population has less than a high school education.

Sources: National Adult Literacy Survey, 1992; Burnham & Miro (1994) (for inmate income data); U.S. Bureau of the Census, 1991 (for general population income data)

Table A-4.2
Percent of Incarcerated Individuals Age 16 or Older Participating in Education Programs Since Current Admission, by Selected Characteristics

	Vocational Education	Non-Vocational Education	No Education Participation
Sex			
Male	33	50	37
Female	40	59	27
Race/Ethnicity			
White	31	43	41
Black	36	54	33
Hispanic	33	52	28
Length of current incarceration (months)			
0–23	25	37	49
24–47	39	53	30
48–119	37	55	32
120 or more	48	70	20
Educational attainment			
0–8 years	29	54	39
9–12 years	31	57	33
HS Diploma/GED	34	39	42
Some college/degree	40	49	32

NOTE: Rows sum to more than 100%, because some inmates participate in both non-vocational and vocational programs.

Source: National Adult Literacy Survey, 1992

Table A-4.3
Percent (and Number) of State Correctional Education Agencies Using Each Method of Educational Service Provision for Vocational and Academic Instruction, 1991–92

Method	Vocational Education		Academic Education	
	Adult Agencies	Juvenile Agencies	Adult Agencies	Juvenile Agencies
Direct service	74 (32)	83 (30)	84 (36)	86 (30)
Contract/agreement	60 (26)	36 (13)	44 (19)	26 (9)
Contract/agreement ONLY	26 (11)	17 (6)	16 (7)	14 (5)
Direct service ONLY	39 (17)	64 (23)	56 (24)	74 (26)
Both direct service and contract/agreement	35 (15)	19 (7)	28 (12)	11 (4)

Source: 1993 Surveys of Adult and Juvenile State Correctional Education Agencies

Table A-4.4
Percent (and Number) of State Correctional Education Agencies Using Perkins Funds for Each Number of Inmate Groups and Curriculum Efforts, 1991–92

	Adult Agencies	Juvenile Agencies
Number of inmate groups targeted (of 5)		
0	11 (4)	30 (7)
1	36 (13)	30 (7)
2	44 (16)	17 (4)
3	8 (3)	13 (3)
4 or more	0 (0)	9 (2)
Number of curriculum efforts targeted (of 8)		
0	3 (1)	4 (1)
1	19 (7)	22 (5)
2	14 (5)	9 (2)
3	25 (9)	9 (2)
4 or more	39 (14)	57 (13)

Source: 1993 Surveys of Adult and Juvenile State Correctional Education Agencies

CHAPTER 5 APPENDIX

Table A-5.1
Percent of Secondary and Postsecondary VSOs Using Each Funding Source, and Average Amounts Earned From Each Source, by School Minority Concentration

Funding Source	Secondary		Postsecondary	
	Percent With Each Funding Source	Average Amount Earned	Percent With Each Funding Source	Average Amount Earned
Student and Advisor Costs				
School activity fees[a]				
Low minority	8	$4	22	$16
Medium minority	9	$2	23	$19
High minority	13	$8	20	$17
Student contributions other than dues[a]				
Low minority	36	$21	22	$15
Medium minority	28	$15	37	$17
High minority	29	$27	23	$21
Advisors' donations[b]				
Low minority	23	$43	16	$53
Medium minority	16	$55	24	$67
High minority	24	$56	35	$80
Total (student and advisor costs)[c]				
Low minority		$1,193		$1,448
Medium minority		$837		$1,687
High minority		$1,666		$1,790
Other Sources of Support				
School district/institution[b]				
Low minority	23	$301	32	$529
Medium minority	22	$234	28	$293
High minority	24	$340	31	$639
Fundraising activities[b]				
Low minority	88	$1,889	78	$2,165
Medium minority	87	$1,645	85	$1,371
High minority	83	$1,116	80	$1,507
Business/industry donations[b]				
Low minority	18	$163	35	$273
Medium minority	20	$390	26	$195
High minority	15	$89	39	$247
Total (other sources)[b]				
Low minority		$2,353		$2,967
Medium minority		$2,269		$1,859
High minority		$1,545		$2,393
Total (all non-dues sources)[c]				
Low minority		$3,546		$4,415
Medium minority		$3,106		$3,546
High minority		$3,211		$4,183

[a]Annual amount per student [b]Annual amount per chapter
[c]Annual amount per chapter, assuming activities fees and contributions from 46 students at the secondary level and 45 at the postsecondary level (average enrollment sizes).
Source: 1992 VSO Chapter Survey

Table A-5.2
Regression Equations Examining Relationship Between School Minority Concentration and VSO Offerings

Secondary Level

Dependent Variable: Percent of students who are minority

R-square = .0847, F(3, 1328) = 40.955, p<.0001

Independent Variables	b-value	t-value	Significance Level
Whether any VSO chapters are offered	-.011921	-.600	.5485
Number of students	.000127	10.640	.0001
Percent of students who are vocational	.105652	3.466	.0005
Intercept	.107660	6.339	.0001

Dependent Variable: Percent of students who are minority

R-square = .0861, F(3, 1328) = 41.724, p<.0001

Independent Variables	b-value	t-value	Significance Level
Number of VSO chapters	.007216	1.573	.1160
Number of students	.000120	9.691	.0001
Percent of students who are vocational	.096235	3.151	.0017
Intercept	.101241	5.940	.0001

(continued)

Table A-5.2 (continued)
Regression Equations Examining Relationship Between School Minority Concentration and VSO Offerings

Postsecondary Level

Dependent Variable: Percent of students who are minority

R-square = .0324, F(3, 782) = 8.727, p<.0001

Independent Variables	b-value	t-value	Significance Level
Whether any VSO chapters are offered	-.040570	-2.637	.0085
Number of students	.000005	4.432	.0001
Percent of students who are vocational	.027444	1.007	.3143
Intercept	.168761	7.880	.0001

Dependent Variable: Percent of students who are minority

R-square = .0311, F(3, 782) = 8.381, p<.0001

Independent Variables	b-value	t-value	Significance Level
Number of VSO chapters	-.015166	-2.437	.0150
Number of students	.000005	4.361	.0001
Percent of students who are vocational	.030283	1.107	.2686
Intercept	.201788	9.906	.0001

Sources: Omnibus Surveys of Public Secondary Schools and Public Two-Year Postsecondary Institutions

Table A-5.3
Percent of School Administrators Saying Each Factor Limits Student VSO Participation "Somewhat" or "A Great Deal," Overall and by School Minority Concentration

	All Schools	Minority Concentration			
		Low	Mid-Low	Mid-High	High
Lack of student interest	44	49	43	43	44
Costs associated with membership	28	25	22	28	40
Lack of teacher interest or leadership	26	26	32	22	29
Lack of transportation services	24	22	20	24	35
Lack of state or district assistance or leadership	18	18	14	18	23

Source: Omnibus Secondary School Survey

Table A-5.4
Percent of VSO Chapter Advisors Stating Each Factor "Discourages" or "Greatly Discourages" VSO Participation, Overall and by School Minority Concentration

	Total	Minority Concentration		
		Low	Medium	High
Secondary Level				
Conflict with students' extracurricular activities	77	77	76	72
Conflict with students' jobs	70	72	67	66
Lack of student interest	64	63	65	61
Costs associated with membership	53	48	54	58
Lack of funds for VSO activities	46	45	44	47
Lack of transportation services	37	35	25	44
Student indecision over job goals	35	36	38	36
Too much emphasis on fundraising	27	27	26	29
Lack of association with business/industry	16	15	12	19
Student racial/ethnic differences	8	4	5	12
Postsecondary Level				
Conflict with students' extracurricular activities	75	79	80	76
Conflict with students' jobs	65	72	66	60
Lack of student interest	57	54	63	66
Costs associated with membership	47	43	46	53
Lack of funds for VSO activities	46	40	46	56
Lack of transportation services	30	28	39	37
Student indecision over job goals	27	27	28	23
Too much emphasis on fundraising	19	13	17	30
Lack of association with business/industry	16	17	15	16
Student racial/ethnic differences	6	2	6	6

Source: 1992 VSO Chapter Survey

Table A-5.5
Percent of VSO Chapter Advisors Who Listed Each Factor as One That Discourages Minority Participation in VSOs[a]

Factors That Discourage Participation	Level		Minority Concentration		
	Secondary	Postsecondary	High	Medium	Low
Lack of money (for dues, uniforms, etc.)	20	17	26	21	10
Attitudinal barriers (e.g., lack of self-esteem, negative attitude toward VSOs)	12	11	14	11	9
Conflicts with other extracurricular activities	8	10	9	8	5
Lack of minority leader or minority participation	6	10	6	8	6
Transportation problems	7	2	8	5	4
Peer pressure	5	4	4	5	5

[a] Factors listed by 5% or more of respondents.

Source: 1992 VSO Chapter Survey

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