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ABSTRACT

This document identifies and describes the sources of public support for postsecondary vocational training in the United States, including the mix of public assistance that is currently available to economically disadvantaged individuals. Following an introduction, the second section is an overview of the general financing situation. Tables report amounts of assistance for 1988 and the distribution of high school graduates from the classes of 1972 and 1980 entering postsecondary education within 4 years. The third section provides a more detailed description of public support for institutions and programs, describing the distribution of postsecondary credits by field for the class of 1980; the level and the recipients of state and local assistance; and federal appropriations made under the Higher Education Act, the Carl D. Perkins Vocational Education Act, and the Job Training Partnership Act. The fourth section describes publicly provided student financial assistance, including the three types of student aid (need-based, merit-based, and aid designed to serve special populations) historically available to postsecondary students. The impact of student financial aid is discussed. The fifth section describes tax subsidies for postsecondary training. It is concluded that while the variety of available subsidies is effective and while there are remarkably few overlaps between programs, there are still four areas that warrant further study. The document concludes with a brief description of these areas. A 19-item bibliography is also provided. (CXL)

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FINANCING POSTSECONDARY TRAINING

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The Financing of Post Secondary Training

Abstract

Public financial support for postsecondary training in the United States comes from the federal government, states, and localities through their direct financing both of postsecondary institutions and training programs and of students who participate in them. This combination of public programs creates postsecondary educational opportunities and subsidizes the direct costs of these opportunities for low-income individuals. This paper provides an overview of public programs that support and promote postsecondary training opportunities, with an emphasis on the economically disadvantaged. It also identifies issues that merit closer scrutiny in future investigations of the financing of postsecondary training.

The Financing of Postsecondary Training

Introduction

Postsecondary vocational training in the United States is provided by a diverse array of organizations, including colleges and universities, vocational-training institutions, community-based organizations, unions, and private corporations. The amount of information that is available on these organizations varies substantially. A great deal is known about the universe of colleges and universities in the United States, who enrolls in them, and how they are financed. At the other extreme, relatively little is known at a national level about the extent of non-formal vocational postsecondary training provided by trade unions, private corporations, and community organizations.

The purpose of this paper is to identify and describe the sources of public support for postsecondary vocational training in the United States. More specifically, it focuses on vocational or career-oriented training that is post high school, yet below the bachelor's level. Of particular concern is the mix of public assistance that is currently available to individuals from economically disadvantaged backgrounds. The analysis is limited to a review of information that is currently available about postsecondary programs and their participants, including information reported in the first two interim reports by the National Assessment of Vocational Education (NAVE), which has sponsored the paper. This paper pulls together from available information sources a description of vocational postsecondary training and how it is financed, with a particular emphasis on opportunities for the economically disadvantaged. It examines public programs that provide support to postsecondary institutions and to the students attending them. It

describes the programs, their funding, their impact, the overlaps and gaps between them, and who benefits from them. First an overview of the financing of postsecondary training is offered, followed by a discussion of institutional aid, student aid, and tax subsidy programs.

Overview of the Financing of Postsecondary Vocational Training

The taxpayers provide direct support for postsecondary vocational training through subsidies: 1) to institutions for the services they provide; and 2) to students for a portion of their costs of obtaining their postsecondary education. The subsidies to institutions include, first, direct support for general operating expenses, usually provided by state and local governments to public institutions; and second, support for programs intended to serve specialized purposes, usually provided on a grant or contract basis. Students are subsidized both by programs which provide direct assistance to them, such as the federal Pell Grant and Guaranteed Student Loan Programs, and by those which provide allocations to institutions, such as the federal Campus-Based Programs. In addition, tax subsidies are provided, in special circumstances, to: 1) individuals and corporations for some portion of their costs of training; and 2) public and not-for-profit postsecondary institutions in the form of tax exempt status. The primary focus in this paper is on direct payments to individuals and institutions because they are the most substantial form of public support. However, tax subsidies are also briefly examined.

Public and private collegiate institutions provide most of the formal postsecondary training in the United States. It is also provided by non-collegiate institutions, including public vocational institutions, and private for-profit (proprietary) institutions. In addition, there is a substantial amount of non-formal vocational postsecondary training in the

United States, including training programs by unions for their membership, by private companies for their employees, as well as by college and university extension services; not-for-profit organizations, and for-profit corporations for various clientele. Of primary concern in this paper is formal vocational postsecondary training programs offered by the collegiate and non-collegiate sectors, although the role of the Job Training Partnership Act (JTPA) in promoting non-formal postsecondary training for the disadvantaged is also considered.

Federal, state, and local subsidies to institutions can take the form of either direct appropriations to fund their operating costs, or contracted support for training programs, which is the case with JTPA. State and local government appropriations usually subsidize the cost of instruction at public institutions, while most federal programs subsidize training for special populations, especially for low-income students.

The federal and state governments also provide payments to individuals to subsidize some portion of their higher education expenses. These include need- and merit-based student financial aid, as well as other student financial aid programs intended to serve particular populations, such as veterans' benefits. Of primary concern to this paper are federal and state need-based financial aid programs because they expand postsecondary training opportunities for the economically disadvantaged. Merit-based financial aid is less frequently provided to students who attend vocational programs.

The primary federal role in the financing of postsecondary education is to provide student aid (Exhibit 1). The U.S. Department of Education's student financial assistance programs were funded at approximately \$8.2 billion in fiscal year (FY) 1987, while other programs that subsidize postsecondary vocational training received less -- \$1.0 billion for ED's

Exhibit 1

FEDERAL FUNDING FOR PROGRAMS
WHICH SUBSIDIZE POSTSECONDARY TRAINING,
FISCAL YEAR 1988
(Amounts in Millions)

U.S. Department of Education

Postsecondary Programs

Student Financial Aid Programs (1)	\$8,173.0
Institutional Subsidies (1)	354.4

Vocational and Adult Education

Vocational Education Programs (2)	881.9
Adult Education Program (2)	131.4

U.S. Department of Labor

Job Training Partnership Act (JTPA) (3)	3,534.1
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Sources: (1) Uses appropriations from: U.S. Department of Education, Office of Planning, Budget, and Evaluation, Annual Evaluation Report, Fiscal Year 1987, Washington D.C.: U.S. Department of Education, 1988; (2) Uses Appropriations from: National Assessment of Vocational Education, First Interim Report from the National Assessment of Vocational Education, Washington D.C.: U.S. Department of Education, 1988; and (3) Uses outlays from: Office of Management and Budget, Appendix to the Federal Budget, 1988, Washington D.C.: GPO, 1988.

vocational and adult education programs, and \$3.5 billion for JTPA. Since only a portion of the student financial assistance resources subsidize students in vocationally-oriented programs, a larger total amount of their subsidization is provided by these specialized federal programs. It should be noted that these vocational programs are larger than the other institutional subsidy programs operated by the federal government.

The primary role of state and local governments in the financing of higher education is that of providing direct appropriations to public institutions. However, the majority of state appropriation usually goes to four-year institutions; only a small portion goes to institutions with two-year and vocational programs--in most states, less than twenty percent (Exhibit 2). Florida and Washington are the only states that allocated more than 30 percent of their state appropriations for postsecondary education at two-year institutions. Local governments also provide general operating support for these schools

Identification of vocational students is always problematic. However, since a large percentage of those students who enroll in programs of two years or less in duration take vocational courses, the focus here is on institutions which offer these programs. According to NAVE's second interim report (1988B), the percentage of high school seniors who enrolled in some form of postsecondary education within four years of high school graduation increased only slightly for the high school class of 1980 (61.7 percent) compared to the class of 1972 (60.3 percent) (Exhibit 3). However, during the same period, the percentage of students enrolled in vocational programs at two-year institutions increased (from 9.9 to 12.1 percent), while the percentage in academic programs declined (from 8.2 to 7.3 percent). A similar pattern was true in four-year colleges. The percentage who enrolled

Exhibit 2

STATE APPROPRIATIONS FOR HIGHER EDUCATION
WITH SPECIAL EMPHASIS ON FUNDING FOR TWO-YEAR INSTITUTIONS
(JUNIOR AND COMMUNITY COLLEGES, AND VOCATIONAL INSTITUTIONS)
BY STATE, 1987-88
(Amounts in Millions)

	Total Appropriated (1)	Community College Appropriations	Percent for Community Colleges
Alabama	\$ 570,537	\$ 58,869	10.3
Alaska	157,156	*	*
Arizona	421,911	56,793	11.5
Arkansas	279,105	21,131	7.5
California	4,748,158	1,259,347	26.5
Colorado	441,021	84,670**	19.2
Connecticut	409,549	68,357**	16.7
Delaware	101,339	22,258	22.0
Florida	1,365,759	421,526	33.0
Georgia	759,404	63,454	8.4
Hawaii	254,672	45,985	18.1
Idaho	139,136	20,896	15.0
Illinois	1,331,564	193,008	14.5
Indiana	707,703	43,048	6.1
Iowa	441,458	73,343	16.6
Kansas	325,725	29,351	9.0
Kentucky	499,526	37,314	7.5
Louisiana	514,517	*	*
Maine	140,645	18,878	13.4
Maryland	614,657	99,149	16.1
Massachusetts	859,299	134,658	15.7
Michigan	1,313,048	198,080	15.4
Minnesota	809,963	212,980**	26.3
Mississippi	362,032	99,435**	27.5
Missouri	503,189	56,417	11.2
Montana	105,106	3,051	2.9
Nebraska	227,203	22,285	9.8
Nevada	112,730	21,565	19.1
New Hampshire	66,901	10,292	15.4

1. Includes funding for statewide programs, state grant programs, and state coordination.

* Subtotal not available.

** State appropriations for community colleges, junior colleges, and occupational/vocational centers.

Exhibit 2, continued

	Total Appropriated	Community College Appropriations	Percent for Community Colleges
New Jersey	1,013,299	92,865	9.2
New Mexico	242,798	6,616	2.7
New York	2,936,954	295,460	10.1
North Carolina	1,284,076	323,594**	25.2
North Dakota	236,347	*	*
Ohio	1,259,569	151,585**	12.0
Oklahoma	386,265	64,823	16.8
Oregon	349,940	60,486	17.3
Pennsylvania	1,176,066	81,505	6.9
Rhode Island	126,185	22,914	18.2
South Carolina	521,016	95,120**	18.3
South Dakota	74,041	5,901	8.0
Tennessee	639,237	63,961	10.0
Texas	2,231,785	413,584	18.5
Utah	257,289	39,784	15.5
Vermont	50,555	*	*
Virginia	915,818	156,242	17.1
Washington	678,482	219,326	32.3
West Virginia	236,565	59,921	4.2
Wisconsin	705,430	85,588	12.1
Wyoming	228,375	68,544	30.0

*Subtotal not available.

**State appropriations for community colleges, junior colleges, and occupational/vocational centers.

Source: Edward R. Hine, Appropriations: State Tax Funds for Operating Expenses of Higher Education, 1987-88, Washington, D.C.: National Association of State Universities and Land-Grant Colleges, undated.

Exhibit 3

DISTRIBUTION OF HIGH SCHOOL GRADUATES ENTERING POSTSECONDARY
EDUCATION WITHIN FOUR YEARS, CLASSES OF 1972 AND 1980
(Percentage)

<u>Type of Institution</u>	Class of 1972	Class of 1980
Any postsecondary education (Total)	<u>60.3*</u>	<u>61.7*</u>
Public two-year colleges	<u>18.1</u>	<u>19.4</u>
Vocational	9.9	12.1
Academic	8.2	7.3
Public technical institutes	<u>2.9</u>	<u>3.6</u>
Private vocational schools	<u>2.0</u>	<u>2.4</u>
Four-year colleges	<u>35.1</u>	<u>35.5</u>
Vocational	17.6	19.8
Academic	18.5	15.7
Private junior colleges	<u>1.1</u>	<u>0.4</u>
<u>Student characteristics:</u>		
Male	63.3	59.3
Female	57.2	64.1
White	61.7	62.7
Black	55.9	57.3
Hispanic	50.1	55.3
Low SES	39.6	43.3
High SES	83.9	83.1
Low ability (in high school)	32.8	35.9
High ability	83.2	84.9
Academic program (in high school)	84.3	84.1
Vocational program	32.1	42.5
General program	48.6	51.2
Educational aspirations (in high school)		
High school only	13.8	13.9
Vocational certificate	41.9	42.0
Associate degree	71.6	67.1
Bachelor's degree	90.2	87.0
Postgraduate degree	90.2	88.6

Source: National Longitudinal Survey of the High School Class of 1972 (NLS-72)
and High School and Beyond (HS&B) Seniors, 1980. From NAVE.1988B, 1-6

in private vocational schools and public vocational institutes also increased slightly. The analysis for the NAVE second interim report (1988B) also revealed that almost 35 percent of the college credit hours taken by the students in the class of 1980 were in vocational fields (Exhibit 4). A substantial percentage of the credit hours in both two-year and four-year colleges was in vocational fields (34.7 and 31.9 percent respectively).

It should be noted that in some states public four-year colleges offer two-year vocational programs. The distinction between two- and four-year institutions is thus somewhat arbitrary. Most formal postsecondary vocational training is nevertheless provided by two-year institutions, and whenever possible special consideration is given to them.

NAVE's second interim report also revealed that the percentage of economically disadvantaged who obtain postsecondary education has increased slightly -- 43.3 percent of the class of 1980 attended compared to 39.6 percent of the class of 1972. Postsecondary participation by low-ability students also increased, but economically disadvantaged attendance remained relatively low for the high school class of 1980 (35.9 percent). Many low-income students do not obtain any form of postsecondary education, and for them there are non-school-based programs such as JTPA.

Public Support for Institutions and Programs

Federal, state and local governments provide direct subsidies to postsecondary institutions and programs both through appropriations to institutions and through the funding of programs or projects intended to achieve special purposes. State and local governments have primary responsibility for providing direct operational support to public postsecondary institutions in the United States, while the federal government funds programs are intended to achieve special purposes. In addition, the

Exhibit 4

DISTRIBUTION OF POSTSECONDARY CREDITS BY FIELD,
CLASS OF 1980

	Public Two-Year Colleges	Public Technical Institutes	Private Vocational Schools	Four- Year Colleges	All Post- secondary Institutions
<u>Shares of all</u>					
<u>postsecondary credits</u>	<u>18.1%</u>	<u>6.1%</u>	<u>2.1%</u>	<u>74.1%</u>	<u>100.0%</u>
<u>Share of all postsecondary</u>					
<u>vocational credits</u>	<u>30.2%</u>	<u>11.4%</u>	<u>7.5%</u>	<u>50.1%</u>	<u>100.0%</u>
<u>Shares of credits among</u>					
<u>curriculum areas</u>					
Vocational	34.7%	70.4%	69.4%	31.9%	34.7%
Academic	58.3	24.9	28.1	64.6	61.1
Remedial/avocational	<u>6.5</u>	<u>3.8</u>	<u>1.5</u>	<u>3.2</u>	<u>4.2</u>
	100.0%	100.0%	100.0%	100.0%	100.0%
<u>Distribution by fields</u>					
Vocational fields	<u>34.7</u>	<u>70.4</u>	<u>69.4</u>	<u>31.9</u>	<u>34.7</u>
Business	12.0	18.4	24.5	9.6	10.7
Marketing	1.5	1.6	4.4	1.7	1.8
Health care	3.6	7.7	14.0	1.8	2.6
Occupational home econ.	2.4	2.7	4.9	1.9	2.0
Trades and industry	3.1	15.0	7.0	1.1	2.1
Technical & engineering	6.9	17.0	10.2	6.7	7.1
Education	1.0	.4	.1	3.8	3.0
Public Service	1.1	2.0	.0	1.5	1.4
Agriculture	1.1	2.8	.4	1.2	1.2
Communications	1.9	2.9	3.9	2.6	2.5
Academic fields	<u>58.3</u>	<u>24.9</u>	<u>28.1</u>	<u>64.6</u>	<u>61.1</u>
Letters	12.1	5.8	6.2	9.8	10.0
Foreign languages	1.4	.0	.1	3.4	2.8
Humanities	6.1	.6	2.3	8.6	7.7
Sciences	10.5	4.1	4.6	11.4	10.7
Mathematics	9.1	7.4	4.4	7.6	7.8
Social sciences	14.1	6.1	4.9	16.2	15.1
Fine arts	4.1	.8	5.6	7.1	6.3
Liberal/general studies	.3	.1	.1	.5	.4
Remedial/avocational	<u>6.5</u>	<u>3.8</u>	<u>1.5</u>	<u>3.2</u>	<u>4.2</u>
	100.0%	100.0%	100.0%	100.0%	100.0%

Source: HS&B Seniors 1980. From NAVE, 1988B, p 1-13.

federal government subsidizes postsecondary institutions through the financing of research, which has little direct impact on postsecondary training. State and federal financing of postsecondary training are examined below.

State and Local Appropriations

Most public institutions of higher education (IHEs) in the United States are state-supported. Local governments also support some four-year institutions and often are partners with states in the financing of community colleges. In addition, states and local governments finance vocational-training institutes and programs. The distribution of postsecondary institutions across the states is presented in Exhibit 5. There are approximately 3,000 institutions of higher education in the United States. In addition, there are approximately 7,000 vocational schools. The latter include public, non-profit and for-profit non-collegiate (proprietary) institutions that offer postsecondary education.

The Level of Public Subsidies: Most state and local governments have historically appropriated funds to higher education institutions on a per-student or FTE (full-time equivalent) basis. However, during the past decade, many states have experimented with financing policies that de-emphasize per student funding. The enrollment-driven funding approach has been criticized because it provides incentives for institutions to grow and to compete with each other for declining enrollments (Bowen, 1980). Consequently, some states have experimented with policies in the 1980s that provide little or no additional funding for small enrollment increases. However, per-student funding remains an integral part of most state funding strategies.

Exhibit 5

POSTSECONDARY INSTITUTIONS AND ENROLLMENT IN
EACH STATE BY SECTOR AND LEVEL, 1986-87
(Enrollment in Thousands of Students)

	Public 4 Year		Public 2 Year		Private 4 Year		Private 2 Year		Voc/Tech
	N	Enroll	N	Enroll	N	Enroll	N	Enroll	N
Alabama	16	104	37	57	17	17	9	4	92
Alaska	3	11	9	16	3	1	0	0	58
Arizona	3	87	16	127	9	11	4	2	211
Arkansas	10	54	10	14	10	9	4	2	141
California	32	488	106	1308	138	194	23	11	1301
Colorado	14	106	15	51	14	16	9	4	149
Connecticut	7	59	17	40	21	58	4	2	148
Delaware	2	21	3	8	4	5	1	NA	22
D.C.	2	12	0	0	16	66	0	0	38
Florida	9	150	28	235	40	85	12	7	381
Georgia	18	117	18	31	29	39	16	9	164
Hawaii	3	23	6	20	5	9	0	0	41
Idaho	4	29	2	7	3	2	1	7	54
Illinois	12	196	47	335	91	148	13	9	496
Indiana	15	162	14	32	38	52	9	4	192
Iowa	3	70	18	40	35	41	5	3	105
Kansas	8	85	21	45	20	12	3	1	96
Kentucky	8	89	13	26	22	21	13	9	106
Louisiana	14	132	6	14	10	23	2	2	218
Maine	8	29	5	5	13	11	5	1	34
Maryland	13	106	19	94	21	33	3	1	188
Mass.	14	109	17	70	72	221	18	18	239
Michigan	15	237	29	209	43	68	4	6	347
Minnesota	10	131	23	48	33	43	7	5	148
Mississippi	9	50	16	40	11	9	6	2	68
Missouri	13	111	15	58	53	74	11	3	243
Montana	6	27	4	4	3	3	4	1	51
Nebraska	7	55	11	29	14	16	1	*	65
Nevada	2	22	4	24	2	*	1	*	63
N. Hampshire	4	22	8	7	12	23	4	3	40
New Jersey	14	131	17	104	26	57	4	2	283
New Mexico	6	46	12	32	3	2	0	0	55
New York	42	347	44	227	175	400	47	33	515
N. Carolina	16	133	58	129	37	54	14	7	75
N. Dakota	6	27	8	8	4	2	1	*	28
Ohio	22	263	38	122	63	102	19	34	390
Oklahoma	14	94	15	55	14	17	4	5	83
Oregon	8	62	13	64	23	19	1	*	161
Pennsylvania	26	193	36	112	109	208	41	34	396
Rhode Island	2	22	1	13	10	34	0	0	33
S. Carolina	12	70	21	38	20	21	9	5	71
S. Dakota	8	24	0	0	7	6	3	1	25
Tennessee	10	100	14	49	44	42	14	6	148
Texas	39	370	61	316	55	87	3	3	522

Exhibit 5, Continued

	Public 4 Year		Public 2 Year		Private 4 Year		Private 2 Year		Voc/Tech
	N	Enroll	N	Enroll	N	Enroll	N	Enroll	N
Utah	4	52	5	21	2	32	3	1	62
Vermont	4	15	2	4	14	12	2	2	12
Virginia	15	148	24	118	31	40	5	3	203
Washington	6	77	26	135	18	29	2	1	183
W. Virginia	12	58	4	10	9	7	4	3	59
Wisconsin	13	155	16	90	31	37	2	1	139
Wyoming	1	10	7	14	0	0	1	1	14

* Rounds to less than 1,000

Source: Compiled from: The Chronicle of Higher Education Almanac: Facts About Higher Education in Each of the Fifty States and D.C., September 1, 1988. Primary Sources were statistics provided by the U.S. Department of Education.

The level of appropriations per FTE received by public institutions varies substantially at two- and four-year institutions (Exhibit 6). In 1985-86, the average state appropriation per FTE in public four-year institutions was \$4,674, compared to \$2,510 in public two-year institutions. However, public two-year institutions received an additional \$775 per FTE from local appropriations, compared to an average \$25 for public four-year institutions. The constant-dollar value of local appropriations to public two-year institutions remained relatively constant between 1975-76 and 1985-86, while local appropriations to public four-year institutions declined in constant and actual dollars. And state appropriations per FTE grew more rapidly in two-year institutions than in four-year institutions.

Tuition revenue per FTE increased more rapidly than government appropriations at public four-year institutions and less rapidly than state appropriations at public two-year institutions. In the early 1980s, many states experienced tax revenue shortfalls, which caused cutbacks in state appropriations and an increased institutional reliance on tuition revenue.

The Beneficiaries of Public Subsidies: Exhibit 7 examines the percentage of freshmen in the high school class of 1980 attending public institutions in the fall of 1980 and the state and local appropriations per FTE at the institutions they attended. A slightly smaller percentage of whites than blacks and Hispanics attended public institutions. A higher percentage of Hispanics who enrolled attended public two-year institutions and a higher percentage of blacks who enrolled attended public four-year institutions. Students who attended public four-year institutions benefited from a larger subsidy per FTE than those who attended public two-year institutions. A higher percentage of low-income students (below \$20,000 family income in 1980) who enrolled in college attended public two-year

Exhibit 6

TRENDS IN STATE AND LOCAL APPROPRIATIONS PER FTE
TO HIGHER EDUCATION INSTITUTIONS: 1975-1985

	1975-76	1980-81	1985-86	% Change 1975-1985
<u>Public Four-Year IHEs</u>				
State Appropriations				
Current \$	\$2,043	\$3,232	\$4,674	128.8%
Constant (1975) \$	2,043	2,110	2,337	14.4
Local Appropriations				
Current \$	32	33	25	-21.9
Constant (1975) \$	32	22	13	-59.4
Tuition and Fees				
Current \$	640	958	1,595	149.2
Constant (1975) \$	640	626	797	24.5
Number:	462	462	462	--
<u>Public Two-Year IHEs</u>				
State Appropriations				
Current \$	\$1,033	\$1,667	\$2,510	143.0%
Constant (1975) \$	1,033	1,088	1,255	21.5
Local Appropriations				
Current \$	384	498	775	101.8
Constant (1975) \$	384	325	387	0.8
Tuition and Fees				
Current \$	363	530	861	137.2
Constant (1975) \$	363	346	430	18.5
Number:	812	812	812	--

Source: Calculated from the Higher Education General Information Surveys

Exhibit 7

AVERAGE PUBLIC SUBSIDY (STATE AND LOCAL APPROPRIATIONS)
PER STUDENT AND PERCENTAGE OF HIGHER EDUCATION ENROLLEES
ATTENDING PUBLIC INSTITUTIONS, FALL 1980

Class of 1980

	<u>Public Two Year</u>		<u>Public Four Year</u>	
	Pct. Attending This Type	Ave. Public Subsidy	Pct. Attending This Type	Ave. Public Subsidy
<u>ETHNIC</u>				
All	35.2%	\$2,080	43.2%	\$3,320
White	34.6	2,070	42.9	3,270
Black	29.5	2,050	50.1	3,200
Hispanic	56.5	2,230	31.3	3,890
Other	36.5	2,250	45.5	4,790
<u>INCOME</u>				
All	35.2	2,080	42.9	3,320
< \$7K	36.0	2,140	43.5	3,330
\$7K-\$16K	43.2	2,130	38.0	3,360
\$16K-\$20K	41.7	2,190	41.2	3,270
\$20K-\$25K	33.8	2,050	43.0	3,110
\$25K-\$38K	33.4	1,950	47.6	3,410
> \$38K	24.9	2,060	44.4	3,420

Source: High School and Beyond Study, Base Survey and Follow Ups and
Higher Education General Information Surveys, from St. John (1988).

institutions, while a higher percentage of students from families with incomes above \$20,000 attended public four-year institutions.

It should also be noted that students who attend public four-year institutions receive a higher average subsidy than students who attend public two-year institutions. This situation has been criticized as inequitable since a larger percentage of low-income students attend these schools. An alternative -- lowering subsidies at public institutions and raising aid to low-income students to cover higher tuition charges -- has often been proposed, a policy direction some states have taken with no apparent decrease in low-income enrollment. However, many states continue to maintain low tuition at their two-year institutions as a matter of policy.

Federal Programs

There are several federal programs that subsidize postsecondary training. Such programs are authorized under:

- o Higher Education Act (HEA),
- o Carl D. Perkins Vocation Education Act, and
- o Job Training Partnership Act (JTPA).

The FY1987 appropriations under these acts are presented in Exhibit 8. The HEA and Perkins programs provide funds directly to postsecondary institutions, although a substantial portion of Perkins funds are allocated to secondary schools. In contrast, JTPA provides funding for vocational training only on a contract basis. Of the programs, those authorized by JTPA are the largest, with an appropriation of over \$3.5 billion. The HEA programs for the disadvantaged (Upward Bound, Talent Search, Educational Opportunity Centers, and Student Support Services) are intended to extend secondary opportunities to first-time college attendees. Most of these funds are awarded to four-year institutions and their impact is uncertain. The

Exhibit 8

APPROPRIATIONS FOR FEDERAL PROGRAMS
WHICH SUPPORT POSTSECONDARY TRAINING
FISCAL YEAR 1987
(Amounts in Millions)

U.S. Department of Education

HEA Programs*

Special Programs for the Disadvantaged	\$ 176.4
Veterans' Educational Outreach Program	3.0
Fund for the Improvement of Postsecondary Education	13.6
Training Program for Special Programs	1.0
Institutional Aid Programs	147.2
Minority Science Program	5.0
Subtotal	\$ 354.4

Perkins Program**

Vocational Education (Perkins Basic State Grants)	809.5
Community-Based Organizations	6.0
Consumer and Homemaking Education	31.6
Indian and Hawaiian Native Programs	12.5
National Programs	11.1
Bilingual Vocational Training	3.7
State Councils	7.5
Subtotal	\$ 881.9

U.S. Department of Labor

JTPA Programs***

Job Training Partnership (Block Grants to States)	1,841.5
Summer Youth Employment and Training Program	635.0
Dislocated Workers' Assistance	266.6
Federally-Administered Programs	
Native Americans	61.5
Migrants and Seasonal Farm Workers	59.5
Job Corps	640.2
Veterans' Employment	3.8
National Activities	67.0
Trade Adjustment Assistance	49.9
Subtotal	\$3,534.1

Source: *U.S. Department of Education, Office of Planning, Budget, and Evaluation, Annual Evaluation Report, Fiscal Year 1987, Washington, D.C.: U.S. Department of Education, 1988;
**National Assessment of Vocational Education, First Interim Report from the National Assessment of Vocational Education, Washington, D.C.: U.S. Department of Education, 1988; and
***Office of Management and Budget, Appendix to the Federal Budget, 1988, Washington, D.C.: GPO, 1988.

institutional aid programs authorized under Title III of the HEA provide grants to both two- and four-year institutions, and these funds have been used to develop vocationally-oriented curricula at two-year institutions. The smaller institutional subsidy programs authorized under the HEA usually have little direct impact on vocational training per se.

Perkins Program: The Carl D. Perkins Vocational Education Act (P.L. 98-524) authorizes federal vocational education programs through FY1989. The Basic State Grant program (Title II A&B), the major component of the Act, provided approximately \$810 million in FY1987 for state grants for vocational training programs (NAVE, 1988A). Perkins funds can be used to support only the additional costs of services for the disadvantaged. The major purposes of the Act are to serve special-need populations, improve the quality of vocational education, and contribute to economic development. The largest portion of JTPA funds are for state grants, which are apportioned to the states using a formula based mainly on population in age brackets (15-19, 20-24, and 25-35), but with an adjustment factor that favors states with low per-capita incomes. States may retain seven percent of the allotment for state-level administration. The remainder is divided into shares for target-group populations (57 percent) and for program improvement, innovation, and expansion (43 percent).

The Perkins Act does not specify a postsecondary share -- school districts and intermediate districts (such as separately-administered vocational facilities) also receive funds. Most states appear to make an allocation between sectors, and then apply the intrastate formula (NAVE, 1988A). Because of this process and the fact that there are fewer disadvantaged and handicapped students at the postsecondary level, NAVE's first interim report observed one possible result: "The typical

postsecondary student qualifying for assistance under these set asides may reap a considerably larger share of resources than a comparable secondary student" (NAVE, 1988A, p. 2-17). Postsecondary level services under the Perkins program, provided mostly by public two-year colleges, are most likely to be used for vocational instruction in mainstreamed classrooms, while funds through JTPA are more likely to be used in separate vocational instruction programs, according to case studies developed for NAVE's first interim report (NAVE, 1988, p. 2-24).

The Act develops a broad definition of "disadvantaged" and leaves decisions about which students to serve entirely to local officials. At the postsecondary level, the criteria for determining who is disadvantaged are considered more relative than for other vocational programs, because higher ability level is generally necessary for attendance.

JTPA Program: The Job Training Partnership Act (P.L. 97-300) authorizes, describes, and provides procedures for the development of basic elements of the partnership structure for administering the JTPA programs at the local, state, and federal levels. The administrative features of the program include sub-state service delivery areas (SDA's), local private industry councils (PIC's), state job training councils (SJTC's) and the program responsibilities of local and state elected officials. The Act authorizes basic training services for economically disadvantaged youth and adults (Part A) and summer youth employment and training programs for disadvantaged young people (Part B) (National Commission on Employment Policy, 1987).

JTPA provides work experience as well as training opportunities. Localities have considerable latitude under JTPA in designing programs for youth and adults. A substantial level of remedial and basic skills education is provided through JTPA. Training programs under JTPA almost always involve

an exchange of JTPA funds for services. Services providers may be school districts, colleges or private contractors. Surveys of SDA administrators show little apparent overlap with Perkins (National Alliance of Business, 1987). Training services contracted for by JTPA would generally be considered non formal -- outside the mainstream of postsecondary collegiate and non-collegiate sectors -- since it is mostly provided on a contract basis and generally does not provide college credit. Although community colleges and technical institutes are used by JTPA, how its funding runs through them is, at best, unclear.

Overview

Public finance of postsecondary institutions and training programs creates opportunities for attendance by disadvantaged students. State and local governments subsidize the cost of attendance for all students attending public colleges and universities. Low-income and minority students who attend collegiate institutions are more likely to attend public than private ones. Direct public subsidies to institutions therefore increase opportunities for the economically disadvantaged to attend them.

Through the Higher Education Act, the federal government provides a series of programs designed to increase participation in public and private collegiate institutions. These smaller HEA programs provide outreach to disadvantaged students and help support the continued development of institutions that serve minority students. In combination, these programs appear to extend access to postsecondary education to populations who might not otherwise be able to attend.

Other federal programs extend postsecondary vocational training opportunities. The Perkins programs support the postsecondary vocational training costs for disadvantaged populations. Most often Perkins funds are

used in public community or vocational institutions. JTPA also provides postsecondary vocational training opportunities, as well as employment opportunities for individuals from disadvantaged backgrounds. JTPA funds most often used to contract for training services provided by a range of collegiate and non-collegiate institutions. The types of training opportunities provided by JTPA are primarily non formal.

In spite of this diversity of programs there is relatively little apparent redundancy or overlap. Evaluations of Perkins and JTPA note little apparent overlap between these programs at the local level. Perkins regulations also appear to preclude substituting federal for state and local funds.

One issue from this brief review does merit careful consideration in future investigations into the financing of postsecondary training. It was noted above that the portion of revenue derived from tuition in public institutions increased in the 1980s. In fact, the tuition charges in public and private institutions have increased more rapidly than inflation each year in the 1980s (Hauptman and Hartle, 1987). Tuition charges in public two-year institutions have risen more rapidly than inflation during the 1980s, although the increase has not been as great as that in four-year institutions. Therefore, the issue of whether postsecondary training is, or will remain, affordable for the economically disadvantaged in many states merits careful consideration.

Public Support for Student Financial Assistance

Student financial assistance provides opportunities to attend postsecondary institutions and programs to students who might not otherwise be able to afford to attend. The direct costs to the individual of obtaining a higher education includes tuition and fees, living expenses, travel, books

and other education-related expenses. Many of the economically disadvantaged would not be able to afford even the direct costs of public institutions without some form of subsidy. In the 1970s, need-based federal student financial aid programs were expanded to increase opportunities for the disadvantaged to attend colleges. In addition, states, postsecondary institutions, philanthropic organizations, and others do much to provide subsidies to those who most need them.

Overview of Student Financial Aid

A diversity of student financial aid is available to students attending postsecondary institutions. Historically, three types of student financial aid have been available to postsecondary students.

First, need-based student financial aid programs now comprise the largest portion of aid. The federal government's need-based programs provide financial assistance in the form of grants, loans, and work. In addition, all states have need-based grant programs that supplement the federal ones. Some of the state need-based programs, in fact, predate federal involvement in student financial aid. Federal and state need-based student aid programs are of primary concern here because of their obvious role in expanding postsecondary training opportunities.

Many postsecondary institutions also provide need-based student financial aid, and during the 1980s private institutions of higher education have become the most active in providing this type of aid. Institutional student financial aid, in effect, provides a price discount for some students. This type of financial aid is not separately considered here, although its impact is considered when the impact of student financial aid is examined below.

Second, a substantial portion of student financial aid is merit-based, which means it is awarded based on ability or achievement rather than

financial need alone. Many states operate merit-based grant programs. In addition, many institutions and private organizations maintain merit-based scholarship programs. Prior to the middle 1970s, there was a relative balance between merit- and need-based programs, but the latter have increased more rapidly in the past decade (Jenny, 1983). Merit-based programs do not receive separate consideration here because they are less prevalent in institutions which provide vocational training.

Third, there is also a set of federal programs designed to serve special populations. These include Social Security Education Benefits, which has been phased out of existence in the 1980s, and Veterans' Benefits. The current Veterans' Educational Benefits programs encourage savings and should not be considered need-based student aid. These programs are not analyzed separately, but their impact is considered below.

Most students who receive financial aid receive federal need-based student financial aid. According to the results of the 1987 National Postsecondary Student Aid Survey (NPSAS), 45.5 percent of all undergraduate postsecondary students receive some form of student financial aid and approximately 34.9 percent receive federal student aid (Exhibit 9). The percentage receiving state (14.8 percent) or institutional (14.0 percent) aid is less than half the percentage who receive federal student financial aid. The percentage of postsecondary students receiving other types of student aid is only 6.3 percent.

Half of the traditional college-age undergraduate students, those under 23 years of age, receive some type of student financial aid, and 39 percent of this age group receive federal student financial aid. A much larger percentage of black undergraduates than any other race/ethnic group receive financial aid. Additionally, students who live on campus in school-owned

Exhibit 9

UNDERGRADUATES ENROLLED IN THE FALL OF 1986,
BY AID STATUS, SOURCE OF AID, AND SELECTED STUDENT CHARACTERISTICS

Selected Student Characteristic	Number of Undergraduates	Nonaided	Any Aid 2/	Source of aid 1/ (in percent)			
				Federal	State	Institution	Other
Total undergraduates	11,213,432	54.5	45.5	34.9	14.8	14.0	6.8
Gender							
Male	5,034,831	55.5	44.5	34.1	13.9	14.0	6.5
Female	6,178,601	53.7	46.3	35.6	15.5	14.1	7.2
Race/ethnicity							
American Indian	112,134	51.1	48.9	40.3	15.9	10.3	8.6
Asian American	571,885	59.5	40.5	33.3	18.1	12.8	5.4
Black, non-Hispanic	1,042,849	36.2	63.8	55.7	20.0	13.9	5.8
Hispanic	762,513	52.2	47.8	40.9	17.1	10.4	5.4
White, non-Hispanic	8,724,050	56.7	43.3	32.0	13.7	14.5	7.1
Age							
23 or younger	6,761,700	50.0	50.0	39.0	17.8	18.9	6.3
24-29	1,895,070	57.2	42.8	34.2	10.7	7.8	6.5
30 or older	2,545,449	64.6	35.4	24.8	9.8	5.9	8.6
Marital status							
Married	2,713,651	64.6	35.4	24.6	7.8	6.4	8.3
Not married 3/	8,499,782	51.3	48.7	38.3	17.0	16.5	6.4
Attendance status							
Full-time	6,997,182	41.7	58.3	47.4	20.9	19.9	6.7
Part-time	4,216,251	75.6	24.4	14.4	4.7	4.6	7.1
Dependency status							
Dependent	6,974,755	54.8	45.2	33.9	15.7	17.5	6.2
Independent	4,238,677	53.6	46.4	37.1	13.4	8.5	8.0
Housing status							
School-owned	2,220,260	36.2	63.8	49.1	23.2	32.5	9.6
Off-campus, not with parents	5,651,570	57.7	42.3	32.7	12.1	9.3	7.4
With parents	3,341,603	61.4	38.6	29.3	13.7	9.9	4.1

1/ Percents added across the various sources may total more than 100 because some students received aid from multiple sources.

2/ Includes students who reported they were awarded aid but were not specific about the source of aid.

3/ Includes students who were single, separated, divorced, or widowed.

Source: U.S. Department of Education, Center for Education Statistics, The 1987 National Postsecondary Student Aid Study. From Korb, Schantz, Stowe, and Zambler, 1988, p. 31.

housing are more likely to receive student aid. Students who live on campus are also far more likely to attend four-year institutions.

More federal student aid was received by students at public four-year institutions (over one third) than by those at public two-year institutions (20 percent) (Exhibit 10). But higher percentages of students received this aid in the private not-for-profit sector (48 percent), and in the private for-profit sector (81 percent). Possible explanations for this are that a larger portion of students at public institutions are older, or employed, or attending part time, and therefore often not eligible for federal aid.

ED's Student Financial Aid Programs

The federal government's need-based student financial aid programs are authorized in the Higher Education Act, as amended (P.L. 99-498), and administered by the U.S. Department of Education (ED). The appropriations for the HEA Title IV Programs in FY1987 are presented in Exhibit 11. The Pell Grant Program was funded at \$4.2 billion, and the Guaranteed Student Loan Program loaned \$9.3 billion. Two-year and proprietary institutions participate in all of the programs. ED's student financial aid programs are described briefly below. (Program statistics cited in this section are from the U.S. Department of Education, Office of Planning, Budget and Evaluation, 1988).

The Pell Grant program, formerly Basic Educational Opportunity Grants (BEOG), was created in the Education Amendments of 1972, which reauthorized the HEA. The Pell program provides grants to help eligible students finance their undergraduate postsecondary education. In FY1987 appropriations for the Pell program were funded at \$4.2 billion; 2.8 million awards totaling \$3.4 billion were made.

Exhibit 10

UNDERGRADUATES ENROLLED IN THE FALL OF 1986
WHO WERE AWARDED FEDERAL AID, BY FEDERAL AID PROGRAM
AND CONTROL AND LEVEL OF INSTITUTION

Control and Level of Institution	Number of Under- graduates	Type of Federal Aid (in Percents)		
		Any Federal Aid	Any Title IV Aid	Any Other Federal Aid
Total Undergraduates	11,213,432	34.9	30.8	4.0
Public	8,572,090	28.5	24.3	4.1
4-Year Doctoral	2,581,556	35.5	32.0	3.6
Other 4-Year	1,681,052	38.4	34.6	3.7
2-Year	4,180,263	19.9	15.1	4.3
Less than 2-Year	129,219	41.9	33.1	9.4
Private, Non-Profit	2,038,949	48.8	44.7	3.8
4-Year Doctoral	769,069	45.7	41.1	4.8
Other 4-Year	1,119,661	50.1	46.8	3.2
2-Year	133,779	47.9	45.6	2.7
Less than 2-Year	16,441	59.4	56.1	5.6
Private, For-Profit	602,394	80.6	75.5	4.9
2-Year and above	223,859	79.2	74.8	4.4
Less than 2-Year	376,535	31.4	75.9	5.2

Source: U.S. Department of Education, Center for Education Statistics,
The 1987 National Postsecondary Student Aid Study. Adapted from
Korb, Schantz, Stowe, and Zembler, 1988, p. 48.

Exhibit 11

APPROPRIATIONS FOR DEPARTMENT OF EDUCATION
TITLE IV STUDENT FINANCIAL AID PROGRAMS,
FISCAL YEAR 1987
(In Millions)

Pell Grant Program	\$4,187.0
Supplemental Education Opportunity Grants	412.5
State Student Incentive Grants:	76.0
Guaranteed Student Loan Program*	2,717.0
Carl D. Perkins Loans	100.0
Work/Study Program	<u>592.5</u>
Total	\$8,137.0

*Loan volume was \$9.266 billion in FY1987.

Source: U.S. Department of Education, Office of Planning, Budget,
and Evaluation, Annual Evaluation Report, Fiscal Year 1987,
Washington, D.C.: U.S. Department of Education, 1988.

The Pell Grant program has done more than any other federal student aid program to finance postsecondary training to the non-collegiate sector. The Pell Grant program, when it was first implemented as the BEOG program in the early 1970s, provided portable grants that were intended to enhance student choice. In FY1987, students in proprietary institutions received nearly one-quarter of all the aid awarded under the Pell program, those in private non-profit institutions received 21 percent, and those in public institutions, 54 percent.

The Education Amendments of 1986 further extended Pell eligibility to include less than half-time students. A study of the impact of this provision is currently in process. When implemented, the new provisions will extend postsecondary training opportunities to students enrolled less than half time and could create new opportunities for poor and underemployed to participate in postsecondary training.

Supplemental Educational Opportunity Grants (SEOG) also provide grants to undergraduates to meet their educational expenses. Created as part of the HEA in 1965, SEOG (then Equal Educational Opportunity Grants), was one of the original campus-based programs. In FY1987, \$413 million was appropriated for SEOG. According to program data, 685,961 students received an average award of \$598 in 1985-86.

The SEOG program is administered by postsecondary institutions. Because only limited amounts of new SEOG funds have been available since 1972, when the provisions of ED's student aid programs were expanded to include non-collegiate institutions, most of the SEOG funds are allocated to the collegiate institutions. In FY1987 private non-profit institutions received a disproportionately large amount of funds (40 percent) relative to their

enrollment, while public two-year institutions received a disproportionately small share (13 percent).

The State Student Incentive Grant Program (SSIG) was created in the Education Amendments of 1972 to help states develop and expand grant and work-study programs to students attending postsecondary educational institutions. States match SSIG dollars on at least a dollar-for-dollar basis. The FY1987 appropriation for SSIG was \$76.0 million. In 1986-87, \$72.7 million SSIG funds were matched by \$145.5 million in state funds that were distributed to 290,928 recipients with an average award of \$609. Over three quarters of the SSIG recipients in FY1986 were from families that earned less than \$20,000. In 1985-86, 22 percent of the SSIG awards and 15 percent of their dollars were made to public two-year institutions.

The Guaranteed Student Loan (GSL) programs provide loans to students and their parents to facilitate students' access to postsecondary education and to enhance their choices among institutions. The GSL programs authorize low-interest loans to students. The PLUS and Supplemental Loans for Students (SLS) programs, also components of GSL, make loans to parents and dependent students and to graduate and independent undergraduate students respectively. GSL, PLUS and SLS loans are made by private lenders. The federal government subsidizes interest, guarantees repayments, and subsidizes administrative expenses. In FY1987 there were approximately \$9.27 billion in loans and the appropriation was \$2.72 billion.

The Carl D. Perkins Loan program helps institutions make low-interest loans to financially needy students. The Perkins Loan program (formerly National Direct Student Loans) is a component of the campus-based programs that are directly administered by financial aid officers at postsecondary institutions. In FY1987, the Perkins Loan program was appropriated at \$188

million. The proprietary sector received approximately 23 percent of the Perkins Loan funds in FY1986, compared to seven percent by public two-year institutions and a scant two percent by private two-year institutions.

The Work-Study program is designed to stimulate and promote part-time employment for postsecondary students who need the earnings to help meet the cost of their education. Federal grants to institutions are used to subsidize up to 80 percent of the student wages and 20 percent or more is the institution's share. In FY1987, the appropriation for the program was \$592.5 million. The Work-Study program is the third component of the campus-based program. Public two-year institutions have been historically under-represented in this program. Proprietary schools were included for the first time in FY1987.

State Grant Programs

States provide both need-based and non-need-based grant programs. For 1987-88, states estimate they will award \$1.89 billion to almost 1.7 million students in postsecondary education. This represents a nine percent growth over the \$1.65 billion awarded in 1986-87 (Reeher and Davis, 1988). Most of this aid (81.2 percent) is awarded by need-based programs (Exhibit 12).

Most of the need-based grants provided by states are part of SSIG approved programs. In 1987-88, it is estimated that only 5.2 percent of the total amount of SSIG funds awarded in 1987-877 (\$1.45 billion) are from the SSIG program. While several states maintain SSIG programs that barely meet the 50-50 federal match, most states, including most of the largest states, substantially exceed federal matches for SSIG, which are distributed to states and territories on a population-based formula.

State grant programs have diverse eligibility criteria. However, most states provide grants to students at public two-year institutions, and most

Exhibit 12

ESTIMATED TOTAL GRANT AID AWARDED BY STATE PROGRAMS,
1987-88, BY TYPES OF PROGRAMS
(Amounts in Millions)

Grants	Need-Based Aid		Non-Need-Based Aid		Other Aid*	Total
	Undergrads	Grads	Undergrads	Grads		
Alabama	\$ 2.260	\$ 0.048	\$ 3.523	\$ 0.028	\$ 3.444	\$
9.703						
Alaska	0.240					0.240
Arizona	3.244	0.010				3.254
Arkansas	3.896		0.722		0.087	4.705
California	135.002	3.410				138.412
Colorado	9.325	0.801	7.378	1.052		18.556
Connecticut	16.337			0.200	10.278	26.815
Delaware	0.852	0.150	0.201		0.100	1.303
District of Columbia	1.106	**				1.106
Florida	17.186	0.003	19.880	1.002	0.260	38.331
Georgia	4.934		13.363		1.485	19.782
Hawaii	0.734					0.734
Idaho	0.343	0.144	0.118			0.605
Illinois	135.772		7.971		4.210	147.953
Indiana	45.408		0.408			45.816
Iowa	26.157		0.799	1.525	2.750	31.231
Kansas	5.430		0.025		0.300	5.755
Kentucky	12.229				1.000	13.229
Louisiana	1.880		0.630			2.510
Maine	1.422					1.422
Maryland	9.051	0.243	2.671	0.011	0.037	12.013
Massachusetts	61.654	5.276	1.900	0.300	21.351	90.481
Michigan	68.380	2.999			1.000	72.379
Minnesota	60.000				4.040	64.040
Mississippi	1.406		0.039	0.381		1.826
Missouri	9.835		1.834		0.210	11.879
Montana	0.420					0.420
Nebraska	1.089					1.089
Nevada	0.352	0.048				0.400
New Hampshire	0.856	0.001	0.134		0.651	1.642
New Jersey	72.475	0.604	2.963	0.600		76.642
New Mexico	(1.461)					(1.461)
New York	381.007	11.444	26.698	6.305		425.454
North Carolina	4.559	1.365	22.038		23.112	51.074
North Dakota	0.540		0.050			0.590

Exhibit 12, continued

	<u>Need-Based Aid</u>		<u>Non-Need-Based Aid</u>		<u>Other Aid*</u>	<u>Total Grants</u>
	<u>Undergrads</u>	<u>Grads</u>	<u>Undergrads</u>	<u>Grads</u>		
Ohio	49.400		20.638	0.203		70.241
Oklahoma	10.493	1.358	0.165	0.294	5.609	17.919
Oregon	10.121					10.121
Pennsylvania	109.823		0.636			110.459
Rhode Island	9.226		0.520			9.746
South Carolina	16.460					16.460
South Dakota	0.581	**	0.090			0.671
Tennessee	16.500		0.104			16.604
Texas	21.931	1.591			77.012	100.534
Utah	1.080		0.673	0.935	5.856	8.544
Vermont	8.242	0.145			0.181	8.568
Virginia	4.420		14.739	1.103		20.262
Washington	12.975				0.149	13.124
West Virginia	5.227				4.964	10.191
Wisconsin	34.754	**			1.658	36.412
Wyoming	(0.204)	(0.036)				(0.240)
Puerto Rico	12.806	**				12.806
Totals	\$1,421.085	\$29.676	\$151.310	\$13.939	\$169.744	\$1,785.754
*	79.6%	1.6%	8.5%	0.8%	9.5%	100.0%

* Aid reported under this heading includes grant aid administered by other state agencies, tuition fee waiver programs administered by state and institutions, special programs for veterans, matching programs, etc.

** Reported a grant program for graduate students but could not report dollars awarded. Amounts are included in undergraduate figures for these states.

Figures in () are 1986-87 data.

Source: Reeher and Davis, 1988, p. 14.

have at least one program for which students at proprietary institutions are eligible.

The Impact of Student Financial Aid

The combination of federal, state, institutional, and other student aid programs provides a substantial resource to subsidize the direct costs of obtaining postsecondary training for many disadvantaged students. Federal need-based student financial aid comprises the largest share of the total amount of financial aid available to students.

In 1986-87, the average award for full-time, full-year undergraduates with an aid award was \$3,813, compared to an average of \$2,199 for other undergraduates with financial aid awards (Exhibit 13). The average federal award was \$2,973 for full-time, full-year undergraduates with aid from federal programs. Institutional awards had the second highest average (\$2,098) followed by aid from other sources (\$1,416) and from states (\$1,280).

Most research on the impact of student financial aid suggests it is effective in promoting access to and persistence in postsecondary education (Leslie and Brinkman, 1988). Research using the National Center for Educational Statistics longitudinal data bases consistently concludes that all types of aid are effective in promoting access, but grants are most effective at increasing the probability that low-income students will attend (Jackson, 1988; Leslie and Brinkman, 1988; Manski and Wise, 1983; St. John and Noell, 1988); and that all types of aid are effective in promoting persistence to program completion (Leslie and Brinkman, 1988; St. John, Kirshstein, and Noell, 1988; Terkla, 1985).

One of the issues complicating conclusions about the effectiveness of student financial aid in promoting access to the disadvantaged during the

Exhibit 13

AVERAGE AMOUNT OF AID AWARDED FOR THE 1986-87 SCHOOL YEAR
TO AIDED UNDERGRADUATES ENROLLED IN THE FALL OF 1986, BY SOURCE
OF AID, ATTENDANCE STATUS, AND SELECTED STUDENT CHARACTERISTICS

Selected Student Characteristics	Any Aid	Federal	State	Institutional	Other
Full-time, Full-year Undergraduates					
Total	\$3,813	\$2,973	\$1,280	\$2,098	\$1,416
Gender					
Male	3,964	3,127	1,247	2,263	1,536
Female	3,690	2,849	1,305	1,963	1,330
Race/Ethnicity					
American Indian	4,201	3,020	--	2,521	--
Asian American	4,374	2,903	1,373	2,582	2,458
Black, non-Hispanic	4,126	3,132	1,400	2,524	1,568
Hispanic	3,817	2,741	1,469	2,267	1,323
White, non-Hispanic	3,716	2,970	1,235	2,007	1,280
Age					
23 or younger	3,853	2,912	1,319	2,172	1,351
24-29	3,810	3,265	1,097	1,798	1,814
30 or older	3,535	3,033	1,179	1,401	1,575
Marital Status					
Married	3,478	3,034	1,176	1,613	1,560
Not Married*	3,858	2,964	1,291	2,138	1,396
Dependency Status					
Dependent	3,762	2,828	1,319	2,202	1,352
Independent	3,939	3,277	1,176	1,601	1,618
Housing Status					
School-owned	4,650	3,280	1,483	2,591	1,476
Off-campus, not with parents	3,708	3,132	1,145	1,705	1,529
With parents	2,757	2,256	1,188	1,379	1,074

Exhibit 13, continued

Selected Student Characteristics	Any Aid	Federal	State	Institutional	Other
All Other Undergraduates					
Total	\$2,199	\$2,203	\$ 851	\$1,232	\$1,009
Gender					
Male	2,259	2,172	864	1,418	1,295
Female	2,155	2,225	843	1,094	802
Race/Ethnicity					
American Indian	2,126	1,893	--	--	--
Asian American	2,842	2,488	864	1,475	1,856
Black, non-Hispanic	2,410	2,295	860	1,125	903
Hispanic	2,499	2,454	1,098	1,035	979
White, non-Hispanic	2,061	2,123	815	1,250	969
Age					
23 or younger	2,525	2,282	931	1,359	1,285
24-29	1,917	2,089	686	1,061	791
30 or older	1,939	2,158	806	998	974
Marital Status					
Married	1,805	2,068	745	1,108	966
Not Married*	2,388	2,254	885	1,271	1,052
Dependency Status					
Dependent	2,383	2,207	968	1,433	1,168
Independent	2,070	2,206	760	959	934
Housing Status					
School-owned	3,469	2,553	960	2,008	1,370
Off-campus, not with parents	2,000	2,168	766	903	928
With parents	2,159	2,129	972	1,133	1,246

--Too few cases for a reliable estimate.

* Includes students who were single, separated, divorced, or widowed.

Source: U.S. Department of Education, Center for Education Statistics, The 1987 National Postsecondary Student Aid Study. From Korb, Schantz, Stowe, and Zembler, 1985, p. 32.

early 1980s is that the funding of federal grant programs did not keep pace with inflation during the early 1980s. Pell funding actually declined between FY1981 and FY1983, before it began to increase again in the middle 1980s. SEOG also decreased between FY1981 and FY1983 and began to climb slowly in FY1984. During this period the volume of GSL loans increased. These developments complicate the issue of access for the disadvantaged precisely because low income are more responsive to changes in the amount of grant aid than of loan aid.

There is some apparent overlap between the various federal grant and loan programs. Periodically there are proposals to simplify, combine, or streamline these programs. Nevertheless the combination of federal, state, and institutional aid appears effective in promoting postsecondary opportunities.

Tax Subsidies for Postsecondary Training

In addition to providing direct financial support for higher education, the federal government and states provide an unknown amount of forgone taxes on exempt income due to tax deductions for postsecondary training. Many postsecondary institutions are tax exempt under IRS section 501 (c)(3). This allows individuals to deduct charitable contributions to tax exempt institutions. Additionally, corporations are allowed to deduct educational expenses (up to \$5,250 in 1987) under qualified educational expenses programs. Additionally, individuals are allowed to deduct the cost of education and related expenses that (1) maintain or improve employment-related skills, or (2) meet the express requirements of individual's employment. The value of these deductions for individuals, corporations and higher education has not been analyzed recently, not even as part of the recent debates over the 1986 tax law.

Because of the steadily rising costs of obtaining a higher education, there has been a periodic interest in the use of tax allowances as a mechanism for the financing of higher education. The two basic forms are credits and deductions. Tax credits, which would have the same dollar-for-dollar value for all income levels, generally would be more beneficial to low income than tax deductions, which would have higher benefits for individuals in higher tax brackets (Sanda, 1974). However, at the present time, proposals that provide tax exemptions for college savings are receiving more political attention than either tax credits or tax deductions.

Regardless of the method used to finance tax allowances, these subsidies generally give fewer opportunities to the severely disadvantaged than the direct forms of public subsidy already discussed. Individuals and families who are in the cycle of poverty simply have few opportunities to take advantage of tax allowance schemes.

It should also be noted that the Department of Labor has a Target Job Tax Credits Program, which provides tax credits to employers that hire individuals from target populations. Although not a training program per se, these tax credits do help with the employment of disadvantaged individuals who have participated in programs such as JTPA or Perkins.

Conclusions

The variety of subsidies provided by government agencies appears effective in creating opportunities for the economically disadvantaged to obtain postsecondary training, and making these opportunities affordable. Given the diversity of programs and funding mechanisms, there are remarkably few apparent overlaps between programs.

The public programs which support postsecondary training provide opportunities for millions of students, including many from disadvantaged

backgrounds. State and local appropriations to public institutions subsidize training costs for students who attend their vocational programs. Federal programs further expand opportunity for low-income students through the HEA institutional aid programs and the Perkins vocational training program. The availability of need-based student financial assistance, most of which is provided through federal programs, further extends postsecondary opportunities through subsidization of expenses to students who enroll in formal training programs in postsecondary institutions. And the federal JTPA programs expand opportunity for vocational training to individuals who lack the opportunity or desire to obtain formal postsecondary schooling. This combination of public programs both creates opportunity for postsecondary training and ensures access for many who might not otherwise have it. Nevertheless, there are issues that merit closer scrutiny in future investigations.

First, the non-collegiate sector of postsecondary training is not as well documented as the collegiate sector. Recent expansions to the National Center for Educational Statistics data collection systems to include information on proprietary institutions will help expand knowledge of these institutions. However, there is a large amount of non-formal vocational training in the United States that remains undocumented. The JTPA programs appear unique in providing access for the economically disadvantaged to non-formal vocational training services.

Second, more research on the impact of direct institutional subsidies on access for the economically disadvantaged is desirable. Low-income students who attend collegiate institutions are more likely to attend public postsecondary institutions. The Perkins program provides supplemental support for the postsecondary training of some disadvantaged students. The

regulations for the Perkins program preclude substituting Perkins funds for state funds. During the 1980s, the prices charged by IHEs have risen more rapidly than inflation. This trend increases the importance of student subsidies for the economically disadvantaged. Future investigations should examine the influence of these trends on student access to and persistence in postsecondary training.

Third, the impact of financial aid on postsecondary access merits continued scrutiny. The availability of student financial aid appears effective in promoting access to and persistence in the collegiate sector for the economically disadvantaged. Student financial assistance subsidizes the direct costs for those who might not otherwise be able to attend. However in the early 1980s, the erosion of grant aid could have diminished the impact of financial aid on student access and persistence, especially in combination with escalating prices. Further analysis of NPSAS data should consider this topic

Finally, the magnitude of tax subsidies for higher education merits closer scrutiny. For example, the cost of tax subsidies for college savings has not been fully investigated. Unfortunately, there are few data sources adequate to the task.

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