

DOCUMENT RESUME

ED 235 753

HE 016 733

AUTHOR Stampen, Jacob O.; Reeves, Roxanne Wilkie
 TITLE Student Aid and Public Higher Education: A Progress Report.
 INSTITUTION American Association of Community and Junior Colleges, Washington, D.C.; American Association of State Colleges and Universities, Washington, D.C.; National Association of State Universities and Land Grant Colleges, Washington, D.C.
 SPONS AGENCY EXXON Education Foundation, New York, N.Y.; Ford Foundation, New York, N.Y.
 PUB DATE Jan 83
 NOTE 114p.
 AVAILABLE FROM American Association of State Colleges and Universities, One Dupont Circle, Suite 700, Washington, DC 20036 (\$5.00).
 PUB TYPE Reports - Research/Technical (143)
 EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
 DESCRIPTORS Family Income; Federal Aid; Geographic Regions; Grants; Higher Education; *Institutional Characteristics; National Surveys; *Need Analysis (Student Financial Aid); Public Education; Questionnaires; *Resource Allocation; Sex; State Aid; *State Colleges; *Student Characteristics; *Student Financial Aid; Student Loan Programs; Two Year Colleges

ABSTRACT

The distribution and impact of student financial aid at public two-year and four-year colleges and universities in 1981-1982 were investigated. A total of 226 institutions and about 12,000 student aid recipient records were evaluated. Findings include the following: in 1981-1982 about \$6.6 billion in student aid was distributed to about three million students; overall student aid recipients included about 31 percent of the total headcount enrollment at public colleges; about 2.1 million of these students received need-based aid, from at least one federal, state, or institutional program; about 800,000 other students received aid classified as "non-need-based," largely federally Guaranteed Student Loans; almost 4 out of 10 need-based aid recipients were self-supporting students, and about 8 out of 10 of these had incomes below \$9,290; among the majority of need-based aid recipients who received assistance from their families, the average family income was \$16,500. Information is also provided on the distribution of aid among different types of students and by type of institution, distribution of aid by geographic region, and origins and types of aid. Appendices include information on the research methodology, a summary of major student assistance programs, a list of participating institutions, and a questionnaire. (SW)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED235753

STUDENT AID AND PUBLIC HIGHER EDUCATION: A PROGRESS REPORT

by
Jacob O. Stampen
Department of Educational Administration
University of Wisconsin-Madison
with assistance from *
Roxanne Wilkie Reeves

"PERMISSION TO REPRODUCE THIS
MATERIAL IN MICROFICHE ONLY
HAS BEEN GRANTED BY

AASCU

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

AE 16733

The American Association of Community and Junior Colleges
The American Association of State Colleges and Universities
The National Association of State Universities and Land Grant Colleges

January 1983

Copyright by the: American Association of State Colleges and Universities
Suite 700 / One DuPont Circle
Washington, D.C. 20036
Telephone (202) 293-7070

Cover design: Kristen Higginbotham

This project was made possible by grants from the
Ford Foundation and the Exxon Education Foundation.

“Student aid programs do what they were originally intended to do. They distribute dollars—mostly federal—to students who would otherwise have difficulty financing a college education.”

Acknowledgements

First, appreciation is expressed to the presidents of the institutions participating in the Public Higher Education Student Aid Study and to their directors of student financial assistance. Fortunately, a high rate of participation was obtained despite, in many cases, heavy institutional work loads. The three sponsoring associations, the American Association of Community and Junior Colleges (AACJC), the American Association of State Colleges and Universities (AASCU) and the National Association of State Universities and Land Grant Colleges (NASULGC) are gratefully acknowledged for their help in securing the cooperation of their member institutions. The following people were very helpful in securing the participation of member institutions: Dale Parnell, James White and Roger Yarrington of AACJC; Allan W. Ostar, Harold Delaney and John Mallan of AASCU and Robert L. Clodius, Jerold Roschwalb and Joel Packer of NASULGC. Wallace Douma and Steven Myhra, respectively Director and Associate Director of Student Financial Aid at the University of Wisconsin-Madison, were valued sources of technical information and Patricia Smith of the American Council on Education was very helpful during the analysis phase of the study.

The Ford Foundation and the Exxon Education Foundation are thanked, for their financial support, as well as for their patience and understanding during the course of the study. This effort would also not have been possible without the close cooperation of the National Institute of Independent Colleges and Universities which under the direction of Virginia A. Hodgkinson developed and tested methodological

designs and procedures useful in the analysis of student aid as it affects all higher education. Also instrumental in this development were Chris Toppe, a principal consultant on software and data processing, Julianne Thrift, the present Executive Director of the National Institute of Independent Colleges and Universities and Professor Arthur Kirsch of George Washington University.

Finally, appreciation is expressed to the graduate students of Educational Administration at the University of Wisconsin-Madison who conscientiously strove to develop an accurate data base through numerous calls to participating institutions and through careful editing and organizing of the data. Roxanne Wilkie Reeves served in exemplary fashion as the general manager of survey operations and data analysis. Barbara Azeka provided excellent assistance in managing and testing various approaches to analysis. The following students also contributed significantly to the execution of the study: James Jacobs, Peter Lisi, Robert Vierling, Diane Rader, and James Barclay.

Many who are named and unnamed have contributed to this first study of student aid in public higher education. As with all studies, errors and other shortcomings may in the future come to light. In this respect, responsibility for content and interpretation rests solely with the principal investigator and author.

Table of Contents

	Page
Executive Summary	i
Introduction	1
Research Methods	5
Findings	8
Dimensions of Student Financial Assistance	11
The Distribution of Aid Among Types of Students	25
Male -- Female	25
Minority -- Non-Minority	27
Single -- Married	30
Lower, Upper and Graduate Level Students	33
State Resident -- Non-Resident Student	36
Full-Time, Part-Time	42
Distributing Aid Among Students Attending By Type of Institutions	45
Mainstream Public Institutions	50
Distribution of Aid by Geographic Region	54
Origins and Types of Aid	63
Summary and Conclusions	67
Appendices	75

List of Tables, Figures, and Appendices

	Page
<u>Tables</u>	
1	13
Proportional Distribution of Grant, Loan, Work and Other Assistance by Need and Dependency Status	
2	15
Distribution of Need-Based Aid Among Dependent and Independent Students by Income Category	
3	18
1981-1982 AACJC/AASCU/NASULGC--Ford/Exxon Student Aid National Sample All Dependent Students at All Institutions Receiving Need-Based Aid	
4	21
1981-1982 AACJC/AASCU/NASULGC--Ford/Exxon Student Aid National Sample All Dependent Students Receiving Need-Based Student Aid Undergraduates Reporting Parental Incomes	
5	22
1981-1982 AACJC/AASCU/NASULGC--Ford/Exxon Student Aid National Sample All Independent Students Receiving Need-Based Student Aid Undergraduates Reporting Student Incomes	
6	27
Male and Female Need-Based Aid Recipients	
7	29
Minority and Non-Minority Need-Based Aid Recipients .	
8	31
Single and Married Need-Based Aid Recipients	
9	34
Average Grant, Loan and Total Assistance by Academic Level	
10	38
Average Tuition and Total Aid Received by State Resident and Non-Resident Need-Based Aid Recipients With Incomes Below \$9,290	
11	39
Dependent Students: Average Grant, Loan and Total Assistance (Both Need- and Non-Need Based)	
12	41
State Resident and Non-Resident Need-Based Aid Recipients With Known Incomes: Percents of Total Recipients, Total Aid Dollars and Total Need-Based Grant Dollars (Aid Recipients With Unknown Incomes Excluded)	
13	43
Full and Part-Time Need-Based Aid Recipients	
14	51
Student Aid and Expenses Across Three Types of Institutions	

	Page
15	Dependent Aid Packages by Geographic Region 59
16	Independent Aid Packages by Geographic Region 61
17	Federal Aid as a Percent of Grants, Loans and Work-Study Awards Received by Dependent Independent Need-Based Aid Recipients 64
18	Need and Non-Need Based Aid as Percent of Total Aid Received by Dependent and Independent Need Based Aid Recipients 65

Figures

1	Student Aid Recipients as a Percentage of Total Enrollment by Type of Institution 47
2	Dependent Need-Based Aid Recipients as Percent of Total Need-Based Aid Recipients by Type of Institution 49
3	Need- and Non-Need Based Student Aid Recipients As a Percentage of Total Enrollment by Region 56

Appendices

A	Technical Supplement 76
B	Number of Participating Institutions by Type of Institution and Geographic Region 82
C	Partial List of Variables Available in The Public Higher Education Student Aid Study Data Base 83
D	Summary of Major Student Assistance Programs 85
E	Public Higher Education Student Aid Study Participants by Type of Institution 89
F	Student Aid Recipient Survey - Academic Year 1981-82 . 94
G	Bibliography..... 96

Executive Summary

Purpose

This report analyzes the distribution and impact of student financial assistance at public colleges and universities during the academic year 1981-82. The first such study of the public college sector, this report involved 226 public colleges and universities and approximately 12,000 student aid recipient records. It reports on the distribution of student aid among varied groups of recipients.

Findings

The data yielded an essential description of student aid as it is distributed in public higher education:

Student aid programs do what they were originally intended to do. They distribute dollars - mostly federal - to students who would otherwise have difficulty financing a college education. In doing so they promote vertical equity, that is, they make higher education affordable to those least able to pay. Almost four out of ten need-based aid recipients were "independent" or self supporting students, many with dependents of their own. Roughly eight out of ten of these had incomes below \$9,290, the federal poverty line for a family of four. Among the majority of need-based aid recipients who received assistance from their families, the average family income was \$16,500.

Additional specific findings include the following:

1. In academic year 1981-82, about \$6.6 billion in student aid was distributed to about three million students who spent a total of about \$12.6 billion attending public institutions. Overall, student aid recipients included about 31 percent of the total headcount enrollment at public colleges.

2. About 2.1 million of these students received "need-based" aid, from at least one federal, state, or institutional program. About 800,000 other students received aid classified in this report as "non need-based," largely federally Guaranteed Student Loans (GSL). Most GSL aid was distributed to students who received assistance on the basis of need from other programs and therefore functioned as need-based aid, but in 1981-82 students who only applied for GSL were allowed to borrow without demonstrating financial need. The extent to which CCL only recipients could have qualified on the basis of need is unknown. The law has now been changed so that all GSL recipients must be below the \$30,000 income level.
3. Lower-income students received the greater part of their aid in the form of grants. Higher-income students received proportionately less grant aid and more loan assistance. Lower-income students were also more likely to attend lowest-cost public colleges.
4. On the whole, need-based aid did not increase proportionately with college costs, but rather was related to family income. In other words, lower-income students received somewhat more aid, but their aid did not increase proportionately if they attended higher-cost institutions. This is due primarily to limitations in the federal aid laws, such as the "half-cost" provision in Pell Grants, which limits aid to the neediest students at many public colleges, and in the low living allowances paid to public college students living off-campus.

5. Most federal student aid to public college students went to freshmen and sophomores. This may reflect in part the much larger number of such students, because of the two-year colleges as well as generally larger freshmen and sophomore classes at four-year colleges.
6. Over half--55 percent--of all need-based student aid recipients were women. About one third were members of minority groups. About 40 percent of need-based aid recipients were self-supporting. Many of these students were older and often married; 40 percent had dependents of their own.
7. There were considerable regional variations in student aid recipients as a percentage of total enrollments. In the West, only 17 percent of total head-count enrollment was accounted for by student aid recipients. At the other extreme, 52 percent of students in the North East received aid. These differences are partly accounted for by higher tuition in the North East and Middle West.
8. Most student aid going to public college students was federal aid. Aid from these sources accounted for roughly eight out of ten grant dollars, more than nine out of ten loan dollars, and three out of four work-study dollars.

Conclusions

The data strongly suggest that the vast majority of those who receive student aid at public colleges and universities would have great difficulty affording college in the absence of such aid. Student aid in

higher education promotes vertical equity through a collectively rational aid distribution system.

Recommendations

Plans are underway to continue the work begun in this project and to disseminate the information in this report as widely as possible, to congressmen, federal and state officials, college officials and student aid officers, and others concerned with higher education.

Research efforts using the data base already available should be expanded. For example, a great deal still needs to be learned about independent or self-supporting students; they are a large proportion of all student aid recipients, but relatively little information is available about them including their age and marital status. Since some federal officials are suggesting restrictions or limitations on the participation of independent students in the aid programs, further research is vital to national policy-making.

Furthermore, the survey should be continued in future academic years--for example, 1982-83 and 1983-84, to give policy-makers a way to determine the effect of recent federal changes in student aid programs on college access and choice.

Introduction

Congressional passage of the Higher Education Amendments of 1972 initiated a bold national effort to lower economic barriers to higher educational opportunity while expanding the boundaries of publicly assisted higher education. According to one of its principal authors, Rhode Island Senator Claiborne Pell, the philosophic underpinning of the amendments was the profound belief that every individual in the nation should have "the right" to a floor of support for his or her postsecondary education at whatever postsecondary institution that individual chose to attend. The centerpiece of the amendments was the Basic Educational Opportunity Grant program, which has since been renamed the Pell Grant Program.

Since Senator Pell's declaration, federal appropriations for student assistance have increased rapidly. Between 1972 and 1982 federal funding for student grants grew from \$168 million to \$2.8 billion, while annual appropriations for student loans increased from \$765 million to roughly \$3.3 billion. Furthermore, with respect to loans, federal appropriations were magnified by the institution-based revolving funds of the National Direct Student Loan (NDSL) Program and the participation of private banks in the Guaranteed Student Loan Program. In academic year 1981-82 students borrowed over \$7.8 billion from these two programs alone. In addition, state level investment in student aid rose, but on a far smaller scale, from \$.3 billion in 1972 to 1.0 billion in 1982.

Student assistance has indeed become a major part of higher education financing, accounting annually for about \$10 billion out of

\$80 billion invested in public and independent postsecondary education. But what of the impacts? How are student aid dollars distributed? What proportion of the total enrollment in higher education is accounted for by student aid recipients? To whom, in what form and in what amounts is aid distributed? Is there evidence suggesting the extent to which student aid is achieving its intended purpose to provide opportunity for those for whom previous support mechanisms were judged inadequate by Congress? Can the data base be linked with other information to help answer questions about the intended and unintended consequences if student financial assistance is reduced or eliminated? The purpose of this report is to address these and other questions focusing on the distribution, packaging and impacts of student financial assistance at public colleges and universities during academic year 1981-82.

Despite the rapid growth in student aid over the past decade, the effects of this growth have not been comprehensively assessed or organized. Although the progress of individual programs has been mentioned and efforts have been made to collectively analyze student aid by the various levels of federal, state or institutional involvement, few efforts have been made to analyze all aspects of student aid. In particular, there have been no previous efforts to assess the distribution and impacts of student aid from all sources as it affects public higher education.

During the summer of 1981 the lack of information about student aid motivated the three national associations representing public colleges and universities - the American Association of Community and Junior

Colleges - the American Association of State Colleges and Universities - and the National Association of State Universities and Land Grant Colleges - jointly to seek funding from the Ford Foundation and the Exxon Education Foundation for the creation of a data base capable of representing all student aid recipients in public higher education. This effort followed a three-year foundation-sponsored project by the National Institute of Independent Colleges and Universities (NIICU) to develop such a data base for independent or private higher education.

The Public Higher Education Student Aid Study is indebted to the NIICU effort and during the summer of 1981 separate "Student Aid Recipient Data Bases" for academic year 1981-82 were commissioned by both NIICU and the public higher education associations. Furthermore, these efforts shared important elements, including virtually identical research designs, student and institutional questionnaires, sampling techniques and analytical software. Together this report and a series of forthcoming NIICU reports reflect data bases that, for the first time, enable comprehensive analysis of the impact of student aid on all sectors and levels of American higher education.

This progress report provides an overview of student financial assistance in public higher education, and it includes national data on student aid recipients attending public two-year colleges, liberal arts colleges, comprehensive colleges and universities, public research universities, and degree granting institutions with special field related missions and regional data on all types of public institutions combined. (see Appendix E for a listing of participating schools).

More important than the report itself is the data base which produced it. This report attempts, as far as existing resources permit, to match data with the previously discussed questions. More importantly, the tables and charts that follow illustrates the data base from which a variety of information can be extracted. It is therefore expected that public policy analysts and decision makers may wish to make further use of the public higher education data in future analyses.

The following report is divided into three sections followed by appendices: 1) a description of methods; 2) statement of findings; and 3) summary and conclusions.

Research Methods

Only recently have studies of student financial assistance obtained data from surveys of individual student records. Earlier reports relied on institutional aggregate data providing little information on what types of students received what types of student aid. Studies conducted by NIICU improved upon these reports by examining individual student aid recipient records, drawn from national samples of private institutions (Hodgkinson and Minter, 1980; Hodgkinson, 1981; Thrift, to be published). However, the NIICU reports provided no information on the state of student financial aid in public institutions and limited their reporting of the private sector student aid packages primarily to dependent students as they varied by parental income.

Methods used in this research were similar to those in the NIICU studies, but the primary difference was the population from which the sample of individual student records was drawn--public institutions. The same survey instrument was used, the Student Aid Recipient Survey, copyrighted by NIICU. However, in this report, greater effort was made to disaggregate data to reflect the distribution of student aid across varied groups of recipients. Grouping variables included dependency status; academic level; registration status; minority group membership; marital status; and sex, in addition to income categories. The data were also disaggregated by institutional type and by region of the country. Furthermore, students receiving only non-need based forms of aid were separated from those receiving at least one form of need-based aid.

Most of the data reported in this paper were simple mean values of various types of aid, sorted by the grouping variables. The basic tables show aggregate student aid package profiles, based on the number of students falling into each group and not simply on the number of students receiving that particular form of aid.

It is important to notice that the total number of students represented in groups, after sorting, varies across different student characteristics. For example, the total number of students in the minority sort differs from the total number of students in the sort by sex and marital status. This is due primarily to missing values on student demographic variables and unknown income categories. In other words, all student aid recipient records in the data base did not include complete background information. Ethnic information, for example, was not as extensive as information about sex and marital status. Care must be taken in interpreting information and in drawing conclusions regarding exact totals and percentages.

Data were collected for the 1981-82 academic year. From a population of 1357 public higher education institutions with enrollments of 500 or more, a stratified random sample was drawn representing five institutional types (research, comprehensive, liberal arts, two-year and special) and five geographical regions (North Central, Mid-Atlantic, North East, Southwest and West). Of 269 institutions initially contacted, 226 or 84 percent agreed to participate.

Student Financial Aid Officers at participating institutions were then instructed to draw a random sample of all student aid recipient

files from which information was used to complete "Student Aid Recipient Surveys." Each record represented 40 aid recipients and one survey was completed for each record. The final data base contained 11,970 records, which were later weighted to reflect actual numbers of students being represented by the sample. Each student record represented approximately 250 students, nationally.

For further details concerning sampling procedures, data collection, processing of raw data, weighting and preparation of tables, consult Appendix A.

FINDINGS

The dimensions of student financial assistance in public higher education are many. This section will report our findings with respect to some of them. We will begin with a broad outline of student assistance as it affects public higher education in the aggregate and then view student aid in connection with various types of students, institutions and forms of assistance both nationally and in the five geographic regions.

For the most part our analysis will focus on students who receive aid on the basis of financial need. That is, the criterion for inclusion of a student aid recipient's record in most of the following tables and charts was the student's receipt of aid from at least one need-based federal, state or institutional program. It is important to note that such students might also receive aid from programs that distribute aid on bases other than need, such as merit-based grants, field-specific grants and loans (for example, nursing grants and loans), and veterans and social security educational benefits.

Technically, in 1981-82 Guaranteed Student Loans (GSL) were also non-need based. However, this program differed from other non-need based programs in that student aid officers often used GSL when constructing aid packages of low income students. In fact, roughly two thirds of GSL funds recorded in this study flowed to students receiving need-based aid. However, for the sake of simplicity, GSL's will hereafter be referred to as a non-need based aid program.

A basic reason for emphasizing need-based aid recipients is that virtually all of the participating colleges and universities maintained extensive records of aid received from a broad array of federal, state and institutional programs requiring the students to demonstrate financial need. Coverage of non-need based aid when combined with need based aid was also virtually universal. However, when the only aid received was non-need based, particularly in the case of non-need based GSL's, institutional records were less complete.

Another reason for separate consideration of need-based aid recipients was our use of the Pell Grant formula for estimating expected parental and student contributions in total aid packaging. Since the Pell Grant formula applied only to need-based aid recipients, inclusion of students receiving only non-need based aid would diminish the accuracy of our summary analysis.

Another qualification is also important to keep in mind when reading the following sections. There are two basic ways of summarizing the distribution of financial assistance. The approach we have most freely employed in this report is to average all sources of aid within broad categories, such as grants, loans and work among all need-based aid recipients in five geographic regions and among five types of public institutions. This approach provides a general overview of aid distribution and packaging. An alternative approach would be to divide total aid distributed under each individual program by the actual number of recipients receiving aid under each program. An illustration of an approach of this type appears later in the text. At this point limited

resources enable pursuit of only one of the above approaches. Our decision was to look first at the average distribution of aid among various types of students and institutions nationally and by geographic region.

Dimensions of Student Financial Assistance

During academic year 1981-82 roughly 9.7 million students attending two and four year public colleges and universities full and part-time spent upwards of \$30 billion dollars on college tuition, room, board, books, and other incidental expenses. Among those 9.7 million students, slightly more than 3.0 million (31 percent) student aid recipients spent roughly \$12.6 billion and received roughly \$6.6 billion in assistance for college attendance from federal, state, institutional or private programs for which institutional records were kept.

Of the 3.0 million students receiving institutionally-recorded financial assistance, approximately 2.1 million received aid from at least one federal, state or institutional program requiring demonstrated financial need in meeting the costs of college attendance. Student financial assistance programs that provided aid on the basis of financial need are commonly referred to as "need-based" programs, and funds distributed under them almost always refer to family or individual income of the current or preceding year as the primary basis for determining eligibility. Conversely, "non-need based" programs, such as the GSL Program during 1981-82, and other federal, state and institutional programs providing grants, loans or work opportunities without reference to income did not require demonstrated financial need as a basis for receiving aid. However, many of these programs had other restrictive criteria, such as limits on aid. For example, the GSL Program limited maximum loans for undergraduate students in almost all

cases to \$2,500, while graduate students could borrow as much as \$5,000. Restrictive criteria in other programs included status as veterans, social security beneficiaries, or residents of the states in which attended institutions were located. Still other criteria included enrollment in specific programs such as nursing.

As far as students are concerned, the distinction between need and non-need based aid is not always mutually exclusive. For example, in many cases, students who qualified on the basis of need for such need-based programs as the federal Pell Grant Program, also received aid from non-need based programs (such as the Guaranteed Student Loan Program). Thus, of the \$6.6 billion distributed to all students during 1981-82, only \$4.3 billion or two-thirds went to students demonstrating financial need. However, the aid received by these students represented a mixture of both need and non-need based aid.

The remaining \$2.3 billion went to students who were not required to demonstrate financial need and 80 percent of this aid was in the form of loans.

Table 1 illustrates the proportional distribution of grants, loans, work-study or other forms of aid among students eligible to receive aid from at least one federal, state or institutional program on the basis of financial need (non-need based aid recipients). The table also shows the distribution of the various forms of aid among dependent and independent students. Dependent students are defined as those who are legally dependent on their parent's income. Our sample projects

Table 1
 Proportional Distribution of Grant, Loan, Work and Other
 Assistance by Need and Dependency Status
 (in billions)

Status	Grants	Loans	Work	Other	Total	Percent
Need	\$2.6	\$1.7	\$.7	\$.4	\$5.4	82
Non-Need	\$.2	\$1.0	\$.0	\$.0	\$1.2	18
Total	\$2.8	\$2.7	\$.7	\$.4	\$6.6	100
Dependent	\$1.6	\$1.7	\$.5	\$.2	\$4.0	61
Independent	\$1.1	\$1.0	\$.3	\$.2	\$2.6	39
Total	\$2.7	\$2.7	\$.8	\$.4	\$6.6	100

roughly 1.3 million need-based aid recipients of this type. Independent need-based aid recipients, roughly .8 million, are defined as those who are self supporting and therefore legally independent of their parent's income. During academic year 1981-82 grants and loans were the predominant types of student aid, each accounting for slightly over 40 percent of all recorded assistance. Grants predominated over loans for need-based aid recipients and loans greatly predominated over grants for non-need based aid recipients. Federal and state work-study assistance was the next most important form of aid, going almost exclusively to need-based students.

Table 1 also shows that over 80 percent of institutionally recorded aid went to students who demonstrated financial need. Table 2 focuses more specifically on the distribution of aid among need-based recipients in various income categories. For purposes of illustration five income categories normally associated with families of four were used. These are the 1981 Census Poverty Income Level (below \$9,290) and the Bureau of Labor Statistics (BLS) Low (\$15,323), Middle (\$25,407) and Upper (\$38,060) quartile budgets. Income distributions of non-need only based aid recipients are not shown since the reporting of income was not required under these programs.

Among need-based aid recipients aid went mainly to those in the lowest income category, that is, slightly more than half of all assistance supported students whose income (i.e., parental in the case of dependent students or individual in the case of independent students) falls below \$9,290. This category included one-third of all dependent aid recipients and more than eight out of ten independent aid recipients. Among independent students only about 2 percent had incomes higher than \$15,323. However, for dependent students almost 45 percent of the aid recipients were from families earning more than the 1981 BLS low family budgets. This fact reflects varying income eligibility requirements of federal, state and institutional programs as well as the balance of grants and loans in student aid packages and consideration of factors other than income. For example, the federal Supplemental Educational Opportunity Grant (SEOG) Program and most state grant

Table 2

Distribution of Need-Based Aid Among Dependent and
Independent Students by Income Category

Income	Dependent	(%)	Independent	(%)	Total	(%)
Income Unknown	41,200	(2.9)	58,800	(7.2)	100,000	(4.5)
1) LT \$9,290	465,496	(33.5)	664,355	(81.6)	1,129,851	(51.3)
2) \$9,290-15,323	262,044	(18.9)	74,397	(9.1)	336,441	(15.3)
3) \$15,323-25,407	379,558	(27.3)	14,126	(1.7)	393,684	(17.9)
4) \$25,407-38,060	209,799	(15.2)	1,672	(.3)	211,471	(9.6)
5) GT \$38,060	<u>30,505</u>	<u>(2.2)</u>	<u>475</u>	<u>(.1)</u>	<u>30,980</u>	<u>(1.4)</u>
Total	1,388,602	(100.0)	813,825	(100.0)	2,202,427	(100.0)
%	(63.0)		(37.0)		(100.0)	

programs were less sensitive to low income than was the Pell Grant Program. Also, loan programs were less sensitive to income than grants and large family size often counter-balanced income when student awards were calculated.

Table 3 exemplifies the alternative approach to data analysis described in the preceding section. That is, an analysis focused on the distribution of aid by individual, federal, state and institutional programs. Further investigation of this type is planned, should funds become available. At this point it is only possible to illustrate for dependent students the kinds of information a program focused analysis might provide.

The Public Higher Education Data Base indicates that there are slightly over 1.3 million dependent need-based aid recipients in public higher education. The five columns indicate the number of recipients receiving aid under each program (Column 1); their average awards (Column 2); the percentage of total student expenses accounted for by these awards (Column 3); the percentage of total assistance accounted for (Column 4); and the percentage of all need-based dependent students receiving aid under each program (Column 5). It should also be noted that the various programs are grouped under the following headings: "Institutional Aid," "Federal Aid," "State Aid," and "Other Aid" and that, if added, the total number of recipients for all programs would exceed the 1.3 million aid recipients figure by a considerable margin. This is reflective of the "duplicated" count produced by observing programs individually. That is, recipients often receive aid from more

than one program, therefore the same students are counted more than once under this approach. Nevertheless the approach has the advantage of showing degrees of participation in the various programs.

Table 3 clearly shows that in public higher education one program stands out as the foundation of need-based student financial assistance. Eighty seven percent, or 1.1 out of 1.3 million dependent, aid recipients participate in the Pell Grant (formerly Basic Educational Opportunity Grant) program. The average award amounts to \$788 and covers roughly one quarter of total student expenses and accounts for slightly more than half of all aid received by Pell Grant recipients. In terms of the percentage of all recipients receiving aid, the next most important program is the federal College Work Study (CWS) program, in which roughly one third of dependent need-based aid recipients participated. Here annual earnings are \$809.

Third in line, but first among state financed programs are state need-based grant programs whose resources are supplemented by federal State Student Incentive Grant (SSIG) dollars. These programs assist 27% of the dependent need-based aid recipients with awards averaging \$319. The fourth most used program is the federally Guaranteed Student Loan program in which roughly 19% of all dependent need-based aid recipients participate in with average loans totaling \$1,217. The fifth and sixth most utilized programs, the SEOG program and the NDSL program are also federal programs. (See Appendix D for brief descriptions of the various student assistance programs).

Table 3

1981-82 AACJC/AASCU/NASULGC--Ford/Exxon Student Aid National Sample
All Dependent Students at All Institutions Receiving Need-Based Aid

Type of Aid	1 Number of Recipients	2 Mean Award	3 Mean % of Cost	4 Mean % of Assistance	5 % of All Recipients Receiving This Type of Aid
Institutional Aid					
Merit-Based Grant	54,758	200	5.54	7.46	4.92
Need-Based Grant	98,072	127	3.31	5.91	5.92
On-Campus Earnings	62,645	229	6.65	8.26	2.79
Fellowship Awards	4,794	42	21.70	1.38	0.54
Assistantship Awards	2,840	65	1.54	1.65	0.26
Loans	16,460	26	0.66	1.67	1.16
FISL/GSL	23,210	54	1.52	0.98	0.63
Employee Remissions/Discounts	197	4	0.10	0.11	0.00
Employee Dependent Remissions/Discounts	2,872	24	0.55	0.92	0.13
All Other Remissions/Discounts	83,379	210	6.42	9.33	5.07
Federal Aid					
Pell (BEOG)	1,101,790	788	24.64	52.77	87.03
SEOG	287,233	331	8.63	13.48	18.02
NDSL	299,250	360	9.60	14.72	15.71
CWSP (Acutal Earnings)	334,128	809	22.67	32.69	29.77
Veteran's Admin. Payments	5,871	133	3.61	3.24	0.48
Social Security Payments	50,904	633	22.26	16.38	4.27
Health Professions Payments	239	9	0.35	0.25	0.01
Health Professions Loans	3,247	44	0.81	1.11	0.79
Nursing Grants	3,107	10	0.31	0.66	0.50
Nursing Loans	4,086	47	1.30	1.94	0.54
All Other Federal Aid	19,127	156	4.68	6.06	1.68
FISL/GSL	348,614	1,217	40.17	35.98	18.96
State Aid					
Merit-Based Grant	14,199	43	4.47	2.26	1.01
Need-Based Grant (Including SSIG)	419,345	319	26.62	17.96	27.24
Entitlement Grant	37,504	44	1.42	1.97	1.66
Campus-Based Grant	33,416	43	1.06	1.84	1.87
College Work-Study	39,304	151	4.49	6.63	3.11
Rehabilitation Grant	4,393	49	1.38	2.24	0.34
All Other State Aid	26,434	120	3.14	5.07	2.44
Other Aid					
Grants of Record	59,270	198	18.65	8.74	4.94
Loans of Record	11,277	123	3.30	3.52	1.29
Off-Campus Earnings	19,311	187	5.56	6.28	2.33

- NOTES: 1) Data for All Colleges in Sample -- Weighted
 2) Total Number of Recipients = 1,303,872
 3) Statistics are Only for Those Receiving Each Type of Award
 4) Statistics (Except for Total Numbers Receiving) Represent Averages for All Schools in Sample -- Not Students

Note that in reading Table 3 mean awards were computed by first averaging student awards within a school and then averaging across all schools. Thus, mean awards for specific programs could be understated if a large number of institutions did not participate in such programs. For example, the level of institutional participation in the NDSL program or the SEOG program among two year institutions was far less extensive than among four year institutions. Therefore, the method for calculating average awards probably underestimated the actual average awards in each of these programs. This problem would not be as serious for programs where institutional participation was widespread such as in the case of the Pell Grant Program and the CWS program.

The preceding demonstrates another very important dimension of need-based student aid. That is, such aid is primarily a federally supported activity.

Federal support is also a factor in most, if not all, state need-based assistance programs because these programs benefit from federal assistance. Moreover, state and institutional programs account for a relatively minor share of total aid recipients and total dollars spent on student assistance. It might also be noted that merit based award winners account for only a tiny proportion of total aid recipients relative to need-based aid recipients. This is, of course, mainly reflective of recent history stemming from passage of the Higher Education Amendments of 1972, whose clear aim was to improve educational opportunity for students from low income backgrounds.

The final dimension of student financial assistance discussed in

this section compares the average distribution of costs, parental and student contributions and various forms of total assistance for dependent and independent need based aid recipients.

Tables 4 and 5 provide average aid packages for dependent and independent need-based aid recipients. That is, these tables summarize information on all students in these categories and in that sense represent average dependent and independent student aid packages for public higher education.

Table 4 summarizes the size of the average dependent student's aid package. Under the title "Student Expenses" the average tuition among all dependent need-based aid recipients is \$921. Next are listed average expenses for room, board and all other budgeted expenses. Percentages for each category appear on the left. Adding all budgeted expenses together produces an average total for "Student Expenses" for dependent need-based aid recipients of \$3,833.

The next major category under expenses reports two kinds of information. One is the amount parents and students are expected to contribute and the other is average aid from various grant, loan, work and other programs. Before describing aid from the various programs, the terms "Expected Parental" (Item 1) and "Expected Student" contributions (item 6) must be explained. Dollar figures in these categories were estimated by taking the mean family income of the student represented by the illustrated aid package (\$16,000) and applying the Pell Grant formula for calculating expected parental and student contributions to that income. That is, unlike the dollar

Table 4

1981-82 AACJC/AASCU/NASULGC--Ford/Exxon Student Aid National Sample
All Dependent Students Receiving Need-Based Student Aid
Undergraduates Reporting Parental Incomes

Weighted National Sample

All Recipients of Need-Based Aid: 1981-82

All Reported Incomes Combined

Sample N = 1,289,783

	Average Dollar Amounts	Percent of Total Student Expenses
<u>Student Expenses</u>		
A. Tuition and Fees	\$ 921	24.0
B. Room and Board	1,577	41.1
C. All Other Budgeted Expenses	<u>1,267</u>	<u>33.1</u>
Total Student Expenses (A+B+C)	\$3,833	100.0%
<u>Grants/Parental Contributions</u>		
1. Expected Parental Contributions	\$ 469	12.2
2. Need-Based Grants		
Pell Grants (BEOG)	\$ 714	18.6
Supplemental Grants (SEOG)	117	3.1
State Grants (Including SSIG)	159	4.1
Institutional Grants	<u>43</u>	<u>1.1</u>
Total Need-Based Grants	\$1,033	27.0
3. Sub-Total (1+2)	<u>\$1,502</u>	<u>39.2</u>
<u>Self-Help</u>		
4. Student Employment		
College Work-Study (CW-S)	\$ 252	6.6
State/Institutional Work Programs	<u>94</u>	<u>2.5</u>
Total Student Employment	\$ 346	9.0
5. Student Loans		
Nat'l. Direct Student Loans (NDSL)	\$ 156	4.1
Guaranteed Student Loans (FISL/GSL)	555	14.5
Institutional Loans	<u>8</u>	<u>0.1</u>
Total Student Loans	\$ 719	18.8
6. Expected Student Contributions	\$ 540	14.1
7. Sub-Total (4+5+6)	<u>\$1,605</u>	<u>41.9</u>
<u>Other Aid</u>		
8. Aid from All Other Sources	\$ 282	7.4
Total Student Resources (3+7+8)	\$3,390	88.4
Balance (Total Resources -- Total Expenses)	\$ -443	-11.6

Table 5

1981-82 AACJC/AASCU/NASULCC--Ford/Exxon Student Aid National Sample
 All Independent Students Receiving Need-Based Student Aid
 Undergraduates Reporting Student Incomes

Weighted National Sample

All Recipients of Need-Based Aid: 1981-82
 All Reported Incomes Combined Sample N = 717,116

	Average Dollar Amounts	Percent of Total Student Expenses
<u>Student Expenses</u>		
A. Tuition and Fees	\$ 702	11.5
B. Room and Board	2,912	47.5
C. All Other Budgeted Expenses	<u>2,458</u>	<u>40.1</u>
Total Student Expenses (A+B+C)	\$6,125	100.0
<u>Grants/Parental Contributions</u>		
1. Expected Parental Contributions	\$ 11	0.2
2. Need-Based Grants		
Pell Grants (BEOG)	832	13.6
Supplemental Grants (SEOG)	146	2.4
State Grants (Including SSIG)	158	2.6
Institutional Grants	<u>31</u>	<u>0.5</u>
Total Need-Based Grants	\$1,168	19.1
3. Sub-Total (1+2)	<u>\$1,179</u>	<u>19.2</u>
<u>Self-Help</u>		
4. Student Employment		
College Work-Study (CW-S)	\$ 276	4.5
State/Institutional Work Programs	<u>171</u>	<u>2.8</u>
Total Student Employment	\$ 447	7.3
5. Student Loans		
Nat'l. Direct Student Loans (NDSL)	\$ 161	2.6
Guaranteed Student Loans (FISL/GSL)	534	8.7
Institutional Loans	<u>17</u>	<u>0.1</u>
Total Student Loans	\$ 712	11.6
6. Expected Student Contributions	\$1,959	32.0
7. Sub-Total (4+5+6)	<u>\$3,118</u>	<u>50.9</u>
<u>Other Aid</u>		
8. Aid from All Other Sources	<u>\$ 339</u>	<u>5.5</u>
Total Student Resources (3+7+8)	\$4,636	75.7
Balance (Total Resources -- Total Expenses)	\$-1,488	-24.3

figures reported as aid from the various programs, the parental and student contribution figures are not reflective of collected data, but rather are estimates based on Pell grant formulas. Thus, it is estimated that the parental contribution of the sample aid package would be \$469 and the student's contribution \$540.

In terms of aid actually received, the average dependent aid recipient would obtain a total of \$1,033 in need-based grants, \$346 in work-study assistance and \$719 in loans. In addition, that student would receive \$282 from other sources such as merit based aid, special program grants or loans, veterans or social security education benefits, and other sources not easily classified under the preceding headings. After all sources of aid and parental and student contributions are taken into consideration, the average dependent need-based aid recipient would have a total of \$3,390 to apply towards total educational expenses. However, the balance between total resources and total expenses remains a negative \$443. In other words, the average student still lacked this amount in terms of meeting the total cost of his or her education. Normally, this difference was compensated for by greater than expected parental and student contributions.

Table 5 represents an average aid package for independent students. The format for reporting is the same as in the case of the dependent student, however, there are notable differences in expenses, parental and student contribution and aid categories. In terms of expenses, the principal difference is in the room and board and other budgeted expense categories. These are considerably higher for independent students as

compared to dependent ones. For the average independent need-based aid recipient tuition was \$702, slightly lower than the figure for dependent recipients. However, the higher living costs of independent students is mainly explained by the fact that 25 percent were married with dependents of their own and many others were single with dependents. Needs analysis systems, such as the Pell Grant formulas used in this analysis, allow higher budgeted expenses for students with dependents. Independent students of this type and their presence in the independent student data base largely accounts for the average total student expenses of \$6,125 for independent students as opposed to \$3,833 for dependent students.

For independent students no parental contributions were required. However, the average independent student was expected to provide \$1,959 from his or her own earnings, almost four times more than for dependent students. The average independent need-based aid recipient received \$1,168 in grants, slightly more than the \$1,033 received by dependent students, \$447 in work-study assistance, \$712 in loans and \$339 in other assistance, with total resources \$4,636. When compared with totals, expenses exceeded total resources by \$1,488.

The Distribution of Aid Among Types of Students

The following section describes how aid is distributed among various categories of students. The focus here is on the distribution of need and non-need based grants, loans, work and other forms of student assistance among students receiving aid from at least one need-based federal, state or institutional program. The following are not exhaustive but rather exemplify some of the most frequently discussed categories.

Male -- Female

Approximately 55 percent of need-based student aid recipients were female, and females outnumbered males in both dependent and independent categories.

Status	Male	Female	Total
Dependent	637,260	725,406	1,362,666
Independent	<u>329,853</u>	<u>468,588</u>	<u>798,441</u>
Total	967,113	1,193,944	2,161,107

Among dependent students, males averaged slightly more total assistance than females (\$2,412 vs \$2,274) but dependent males also attended slightly higher cost institutions (\$3,934 vs \$3,784). As a result total aid as a percentage of total expenses was virtually identical for males and females (61% vs 60%). However, within total aid received there were some modest differences between the sexes. Males borrowed more and earned slightly less from need-based work-study programs than females. Males also tended to obtain slightly more than females from the "other" aid category in Table 6. However, in terms of grant assistance average awards by sex, the sexes were quite similar.

Among independent students, males averaged over \$400 more than females in total assistance. As with dependent students, males also received higher average awards in all categories of assistance, although in this case they attended lower cost institutions (\$5,866 vs \$6,232). Reasons for this disparity seem mainly reflective of the larger average loans and slightly larger average grants received by males.

Table 6
Male and Female Need-Based Aid Recipients

Cost/Aid	Dependent		Independent	
	Male	Female	Male	Female
<u>Cost</u>				
Tuition	\$ 976	\$ 894	\$ 777	\$ 700
Total Expenses	3,935	3,784	5,866	6,232
<u>Aid</u>				
Grants	1,147	1,120	1,373	1,236
Loans	816	684	961	712
Work	286	349	390	345
Other	<u>163</u>	<u>121</u>	<u>258</u>	<u>228</u>
Total Resources	2,412	2,274	2,982	2,521

Minority--Non-Minority

Minority students, commonly defined as being members of non-Caucasian ethnic groups, have long been a focus of attention when student aid is discussed and account for approximately one third of all need based student aid recipients. As used here, the term minority refers to Blacks, Hispanics, Asian and Pacific Islanders, and American Indians. However, the reader should be aware that summary use of the term "minority" masks important differences among these groups.

Immediate examples of these differences are as follows:

Compared with Caucasians, Black, Hispanic and American Indian aid recipients were concentrated in two-year colleges and comprehensive

colleges and universities. Black aid recipients outnumbered Hispanics by a ratio of almost three to one (355,070 vs 127,698) and only a few thousand American Indians nation-wide received financial assistance. Asian and Pacific Islanders were also far less numerous than Blacks or Hispanics, but, compared to the other minority group members and Caucasians, a higher proportion of Asian and Pacific Islanders were enrolled in research universities. The following minority group statistics are mainly reflective of Blacks and Hispanics.

In terms of numbers of aid recipients, the minority and non-minority participation was as follows:

Status	Minority	Non-Minority	Total
Dependent	365,520	733,889	1,099,409
Independent	231,478	387,496	618,974
Total	596,998	1,121,385	1,718,383

*Note: Approximately 400,000 student aid recipient records lacked ethnic identification. The assumption for analysis of this data is that missing data are proportionately distributed among minority and non minority groups, since ethnic identification is not required for all student aid programs.

As the above figures indicate, non-minority aid recipients outnumbered minority aid recipients by roughly two to one. Minority students were also slightly more likely than non-minority students to be independent students (39% vs 35%), but most were considered dependents of their parents:

Table 7 compares expenses and aid received by minority and non-minority students.

Table 7
 Minority and Non-Minority Need Based Aid Recipients

Cost/Aid	Dependent		Independent	
	Minority	Non-Minority	Minority	Non-Minority
<u>Cost</u>				
Tuition	\$ 686	\$ 949	\$ 579	\$ 728
Total Expenses	3,484	3,804	6,009	6,018
<u>Aid</u>				
Grants	1,286	1,050	1,353	1,240
Loans	319	937	521	947
Work	370	303	339	378
Other	<u>187</u>	<u>87</u>	<u>243</u>	<u>215</u>
Total Resources	2,162	2,377	2,456	2,780

Several features distinguished between minority and non-minority need-based aid recipients in both dependent and independent categories. Minority aid recipients attended lower tuition institutions than did majority students. For dependent students this was also reflected in "total expenses" but the same was not true for independent students where the expenses of both groups were almost identical.

In terms of total resources, non-minority dependent students received approximately \$200 more than minority dependent students. For independent students non-minorities received over \$300 more than minorities. On the other hand, minority grants averaged about \$200 more

for dependent students and about \$100 more for independent ones.

The greatest difference between minority and non-minority students was in the loan category. Average loans for non-minority dependents exceeded minority loans by over \$600. Among independent students the difference was over \$400. In any case, aid as a percentage of total expenses was identical for minority and non-minority dependent students (62%). For independent minority students aid covered approximately 41 percent of total expenses and for independent non-minority students the proportion was a slightly higher 46 percent.

Single -- Married

Need-based aid recipients were overwhelmingly single (90%). However, among independent students a fairly high proportion (24%) were married. Also many single students of this type had dependents of their own. These students largely accounted for the higher average expense figures for independent students.

Status	Single	Married	Total
Dependent	1,305,460	15,395	1,320,855
Independent	<u>580,790</u>	<u>185,417</u>	<u>766,207</u>
Total	1,886,250	200,812	2,087,062

As one would expect, single and married students also varied greatly in terms of dependency status. Sixty-nine percent of single students were dependent, whereas less than 1 percent of married students were dependent.

Table 8 illustrates the packaging of aid for single and married aid recipients.

Table 8
Single and Married Need-Based Aid Recipients

Cost/Aid	Dependent		Independent	
	Single	Married	Single	Married
<u>Cost</u>				
Tuition	\$ 925	\$ 713	\$ 724	\$ 723
Total Expenses	3,815	4,398	5,536	7,991
<u>Aid</u>				
Grants	1,132	1,024	1,338	1,136
Loans	730	640	795	838
Work	313	399	367	314
Other	141	290	206	314
Total Resources	2,316	2,353	2,706	2,602

Among dependent aid recipients, average tuitions for single students were approximately \$200 per year higher than for married students. However, the total expenses of married students were almost five hundred dollars more than for single students (\$4,398 vs \$3,815). The average amount of aid received by both married and single students was nearly the same (\$2,353 vs \$2,316). Within total assistance, single students received approximately \$100 more in both grants and loans,

while married students exceeded single students in work-study assistance and miscellaneous "other" assistance. While average total aid was very similar for single and married students, aid as a percentage of total expenses differed because of the higher expenses of married students. For single students, total aid covered roughly 61 percent of expenses, while the equivalent figure for married students was 54 percent.

Tuition costs were nearly identical for independent single and married students, \$724 and \$723, respectively. However, the total expenses for independent married students were almost \$2,500 higher than for single students (\$7,991 vs \$5,536). Again, this difference reflected the higher maintenance costs of married students relative to single students. However, as Table 8 shows, the total expenses of single independent students exceeded those of both single and married dependent students by a considerable margin (\$5,536 vs \$3,815 and \$4,398). This difference reflected the fact that a considerable number of independent single students, while not currently married, were older and had dependents of their own.

In terms of aid actually received by single and married independent students, average total aid was quite similar (\$2,706 vs \$2,602). Independent single student grants were between \$200 and \$300 larger than those of students in other categories. Independent married students borrowed slightly more than independent single students and received more in "other" assistance. Total aid covered approximately 49 percent of total expenses for independent single students and 33 percent for independent married students.

Lower, Upper and Graduate Level Students

Aid recipients can also be classified by years of education. "Lower Level" students are normally freshmen and sophomores, "Upper Level" students, juniors or seniors, and "Graduate" students are generally those who have completed a baccalaureate degree. However, the graduate category is somewhat more complicated than the others. For example, as used here, the term includes degree and non-degree seeking students as well as students seeking advanced degrees in general and professional schools.

Because of these complications, it is sometimes possible for someone to be considered a graduate student in one sense but an undergraduate in another. An example of this would be a student who is accepted in the junior year by a medical or other professional school and begins taking courses in that school. Such a student would be considered a junior for aid purposes, but a "first professional" student for other purposes. Since the definition of graduate student used in this report assumed that all "first professional" students were graduate students, some undergraduates are included in our graduate sample. Thus, the number of graduate students and aid received by them is somewhat overstated.

As the following figures indicate, almost seven out of ten need-based aid recipients were first and second year, or "Lower Level," college students. Of these, two-thirds were dependent on their parents and one-third independent. Upper level students accounted for roughly 30 percent of need-based aid recipients, but about six out of ten of

these students were independent of their parents. Only about 2 percent of need-based aid recipients were graduate students and more than eight out of ten of these were independent students.

Status	Lower Level	Upper Level	Graduate	Total
Dependent	990,345	386,425	6,976	1,383,746
Independent	<u>499,034</u>	<u>275,587</u>	<u>34,703</u>	<u>809,324</u>
Total	1,489,379	662,012	41,679	2,193,070

In terms of costs of college attendance and aid received there was a marked increase in average dollar amounts as the years of schooling increased, except for upper-level independent students. This is evidenced in the following table:

Table 9
Average Grant, Loan, and Total Assistance by Academic Level

Cost/Aid	Dependent			Independent		
	Lower Level	Upper Level	Graduate	Lower Level	Upper Level	Graduate
<u>Cost</u>						
Tuition	889	1,016	1,869	599	898	1,259
Total Expenses	3,742	4,092	6,371	6,262	5,674	7,038
<u>Aid</u>						
Grants	1,138	1,122	565	1,272	1,402	643
Loans	637	953	3,302	550	1,040	2,965
Work	303	353	363	302	431	691
Other	141	160	497	189	314	523
Total Resources	<u>2,219</u>	<u>2,588</u>	<u>4,727</u>	<u>2,313</u>	<u>3,187</u>	<u>4,822</u>

Among dependent students, graduate students spent almost \$1,000 more for tuition than lower level students. (\$1,860 vs \$889). The spread in total expenses was even greater, over \$2,600. However, aid received was almost the same, slightly over \$2,500. The primary distinction between graduate students and both lower and upper level undergraduate students appeared in the loan category. These graduate students borrowed \$3,302, while lower level students borrowed \$637 and \$953, respectively. Another major distinction appeared in the grant category where graduate students averaged \$565, mostly in non-need based grants, while lower level students averaged \$1,138 and upper level students \$1,122. Lower average grants for graduate students is primarily explained by the fact that graduate students are not eligible to participate in the Pell Grant program. A third distinction appeared in the "other" aid category where graduate students, reflective of their eligibility for graduate assistantships and other special programs, averaged \$497, compared to \$141 for lower level and \$160 for upper level students. Total resources as a percentage of total expenses also varied among the levels, but in inverse proportion to the level of education. Aid represented 74 percent of expenses for graduate students, 63 percent for upper level students, and 59 percent for lower level students.

Among independent students, overall aid patterns were quite similar. That is, graduate students borrowed far more than either lower or upper level undergraduates but received much less in grant assistance and more from "Other" sources. In terms of total aid as a percentage of total expenses, again the proportion was highest for graduate students

(68%), next highest for upper level students (56%), and lowest for lower level students (37%).

A subsequent discussion of aid patterns among various types of institutions demonstrates a partial explanation for the relatively low percentage of total expenses covered by aid for lower-level students. This low percentage stems from the fact that two-year community and junior colleges participate in relatively few of the many aid programs utilized by students attending comprehensive colleges and universities and public research universities. This factor reduced averages for lower level students.

State Resident -- Non-Resident Students

In public higher education there are two separate tuition structures, one for the legal residents of the state in which an institution is located and another for non resident students. Nationally, state resident tuitions average about 25 percent of total instructional costs. By contrast, non-resident tuition usually covers between 50 and 100 percent of instructional costs. The following section illustrates how combined federal, state and institutional aid is distributed among state residents and non-residents at different income levels.

Status	State Resident	Non-Resident	Total
Dependent	1,236,472	152,131	1,388,603
Independent	<u>761,773</u>	<u>52,052</u>	<u>813,825</u>
Total	1,998,245	204,183	2,202,428

As the above figures indicate, need-based aid recipients in public colleges and universities were overwhelmingly state residents (91%). This overall pattern is not unique among need-based aid recipients but rather is characteristic of all students attending public institutions. For example, according to data in a 1980 report of the National Center for Education Statistics, in 41 states over 80 percent of state residents attending any college attend public institutions in their home states. In only five states did less than 75 percent attend public institutions. Also, among state and non-state aid recipients, non-resident aid recipients are distinguishable by the high percentage that are dependent students (75% vs 62% for state-resident dependents). This reflects the fact that non-resident independent students are very rare in public higher education, accounting for only about .2 percent of all need-based aid recipients.

The following discussion of state resident and non-resident aid recipients departs somewhat from the format previously applied to other aid recipient categories. The availability of state resident and non-resident data by income categories provides an opportunity to shed light on some characteristics of aid distribution which have not been shown previously. One of the characteristics which distinguished between state resident and non-resident aid recipients was total aid received. For example, among both dependent and independent non-residents, in the below \$9,290 income category, students received aid packages which were between one-quarter and one-third larger than aid packages received by state residents.

Table 10

Average Tuition and Total Aid Received by State Resident and
Non-Resident Need-Based Aid Recipients With Incomes Below

Status	State Resident		Non-Resident	
	Tuition	Total Aid	Tuition	Total Aid
Dependent	\$ 758	\$2,230	\$1,666	\$3,350
Independent	688	2,690	1,431	3,657

These figures reflect the fact that tuitions were higher for non-resident than for state resident students and that non-resident students had higher college attendance costs by reason of independent maintenance or, as in the case of dependent students, living at some distance from home. The above table also shows that average total aid for independent students exceeded average amounts for dependent students. It was noted earlier that roughly three-quarters of all non-resident aid recipients were dependents of their families. From the above it would seem that on a per student basis, aid flowed disproportionately toward non-resident aid recipients. It did, but only a little, as will be seen shortly.

Another interesting characteristic of aid packaging was that even though grants, for example, declined as incomes increased among state resident and non-resident students, total aid varied less.

Table 11

Dependent Students: Average Grant, Loan and Total Assistance
(Both Need and Non-Need Based)

Income Category	State Resident			Non-Resident		
	Grant	Loans	Total Aid	Grant	Loans	Total Aid
LT \$9,290	\$1,357	\$ 439	\$2,230	\$1,553	\$ 882	\$3,350
9,290-15,323	1,279	551	2,278	1,592	1,038	3,340
15,323-25,407	979	798	2,172	1,219	1,160	3,182
25,407-38,060	628	1,233	2,288	770	1,421	2,780
GT 38,060	325	1,277	2,064	421	1,680	2,812

The reluctance or inability of students from low income backgrounds to borrow is a common finding of policy researchers, and the above figures suggest the same. In Table 11, borrowing steadily increased with income and non-resident students in all income categories borrowed more than state residents. However, average loans were smaller than average grants in the three lowest income categories, and this despite the fact that low income is perhaps the most compelling reason to borrow.

Table 12 compares percentages of state resident need based aid recipients in all income categories with percentages of dollars from all aid programs and from need-based grant programs alone. The overwhelming majority of aid recipients, approximately 91 percent or 1.9 million students, were state residents. However, there was not a great deal of difference between this figure and the percentage of aid from all sources, about 88 percent (\$4.5 billion); and the percentage of need-based grants, about 90 percent (\$2.0 billion). This illustrates the extent to which the number of students and the aggregate characteristics of the programs influenced the distribution of funds.

Among all need-based aid recipients, about one-half were state residents in the less than \$9,290 category. These students received approximately the same proportion of aid from all programs included in our study and slightly more than 55 percent of all need-based grants. Above the \$15,323 income level, 96 percent of which were dependent students, the percentage of dollars for all aid and for need-based grants was consistently lower than the percentage of aid recipients.

Table 12

State Resident and Non-Resident Need-Based Aid Recipients With Known Incomes:
 Percentages of Total Recipients, Total Aid Dollars and Total
 Need-Based Grant Dollars (Aid Recipients With
 Unknown Incomes Excluded)

Income Category	State Resident			Non-Resident		
	% of Recipients	% of Total Aid	% of Need-Based Grants	% of Recipients	% of Total Aid	% of Need-Based Grants
LT \$9,290	49.3	50.4	55.0	4.9	5.7	4.8
\$9,290-\$15,323	14.5	13.5	15.7	1.5	1.9	1.8
\$15,323-\$25,407	16.4	14.6	14.2	2.2	3.0	2.4
\$25,407-\$38,060	8.9	8.3	4.9	1.2	1.3	.7
GT \$38,060	<u>1.0</u>	<u>.8</u>	<u>.3</u>	<u>.5</u>	<u>.5</u>	<u>.2</u>
Total	90.6	87.6	90.1	10.3	12.4	9.9

Among non-resident aid recipients the percentage of all aid and need-based grant dollars was higher than the percentage of recipients for income levels below \$25,407. At higher income levels percentages of recipients were virtually identical to percentages of dollars from all programs, except that percentages of need-based grant dollars were lower. Overall, non-resident aid recipients received more dollars (12.4% of all aid and 9.9% of need-based grants) than their numbers represented (9.4%), but this had little discernible impact on the total distribution of aid dollars.

Full-Time -- Part-Time

One important characteristic of public higher education is that approximately 40 percent of its students attend part-time. However, 92 percent of need-based aid recipients attend full-time. Most need-based programs require that students attend college full-time. Partial Pell Grants may be awarded if a student is enrolled for at least six semester hours per semester, and the "Campus Based Programs" (i.e. SEOG, NDSL, and CWS) allow institutional student aid officers, at their discretion, to assist part-time students with funds from these programs. However, full-time attendance is customarily a prerequisite for receiving aid.

Status	Full Time	Part Time	Total
Dependent	1,304,309	72,622	1,376,931
Independent	<u>701,982</u>	<u>106,237</u>	<u>808,219</u>
Total	2,006,291	178,859	2,185,150

Table 12

State Resident and Non-Resident Need-Based Aid Recipients With Known Incomes:
 Percentages of Total Recipients, Total Aid Dollars and Total
 Need-Based Grant Dollars (Aid Recipients With
 Unknown Incomes Excluded)

Income Category	State Resident			Non-Resident		
	% of Recipients	% of Total Aid	% of Need-Based Grants	% of Recipients	% of Total Aid	% of Need-Based Grants
LT \$9,290	49.3	50.4	55.0	4.9	5.7	4.8
\$9,290-\$15,323	14.5	13.5	15.7	1.5	1.9	1.8
\$15,323-\$25,407	16.4	14.6	14.2	2.2	3.0	2.4
\$25,407-\$38,060	8.9	8.3	4.9	1.2	1.3	.7
GT \$38,060	<u>1.0</u>	<u>.8</u>	<u>.3</u>	<u>.5</u>	<u>.5</u>	<u>.2</u>
Total	90.6	87.6	90.1	10.3	12.4	9.9

Among non-resident aid recipients the percentage of all aid and need-based grant dollars was higher than the percentage of recipients for income levels below \$25,407. At higher income levels percentages of recipients were virtually identical to percentages of dollars from all programs, except that percentages of need-based grant dollars were lower. Overall, non-resident aid recipients received more dollars (12.4% of all aid and 9.9% of need-based grants) than their numbers represented (9.4%), but this had little discernible impact on the total distribution of aid dollars.

Full-Time -- Part-Time

One important characteristic of public higher education is that approximately 40 percent of its students attend part-time. However, 92 percent of need-based aid recipients attend full-time. Most need-based programs require that students attend college full-time. Partial Pell Grants may be awarded if a student is enrolled for at least six semester hours per semester, and the "Campus Based Programs" (i.e. SEOG, NDSL, and CWS) allow institutional student aid officers, at their discretion, to assist part-time students with funds from these programs. However, full-time attendance is customarily a prerequisite for receiving aid.

Status	Full Time	Part Time	Total
Dependent	1,304,309	72,622	1,376,931
Independent	<u>701,982</u>	<u>106,237</u>	<u>808,219</u>
Total	2,006,291	178,859	2,185,150

Table 13

Full and Part-Time Need Based Aid Recipients

Cost/Aid	Dependent		Independent	
	Full-Time	Part-Time	Full-Time	Part-Time
<u>Cost</u>				
Tuition	952	600	773	486
Total Expenses	3,876	NA	6,043	NA
<u>Aid</u>				
Grants	1,152	711	1,355	855
Loans	763	315	864	493
Work	322	197	389	168
Other	151	110	244	259
Total Resources	2,388	1,333	2,852	1,775

Here one sees that dependent part-time students received slightly more than half (56%) as much total aid as full-time students. For independent students the percentage of total aid received by part-time students was 62 percent. Comparing dependent and independent full and part-time students, the prevalent distinctions in previously described categories are once again evident. That is, independent students averaged slightly larger grants, loans, and total assistance compared to dependent students, while at the same time attending lower cost institutions.

Aid as a percentage of total costs for dependent and independent:

full-time students was, respectively, 62 percent and 47 percent. Because part-time attendance lacked standard definition as a percentage of full-time attendance, comparable percentages are not calculated for part-time students. The preceding descriptions of aid recipient characteristics are illustrative of the manner in which aid was distributed among a variety of student types. Next we will look at how aid was distributed among students attending different kinds of institutions.

Distribution of Aid Among Students By Type of Institutions

The following section discusses the distribution of aid among students attending five types of public colleges and universities originally classified by the Carnegie Council on Higher Education. Among these, three types (the associate degree awarding two-year community and junior colleges, the comprehensive state colleges and universities, and the research universities) account for 98 percent of all students enrolled in public institutions. Of the two remaining types, the largest represents specialized professional schools such as medical, dental, architectural, or mining schools and merchant marine academies. Collectively these institutions enrolled approximately 136,000 students. The smallest institutional category, representing only about 14,000 students, is the public liberal arts colleges.

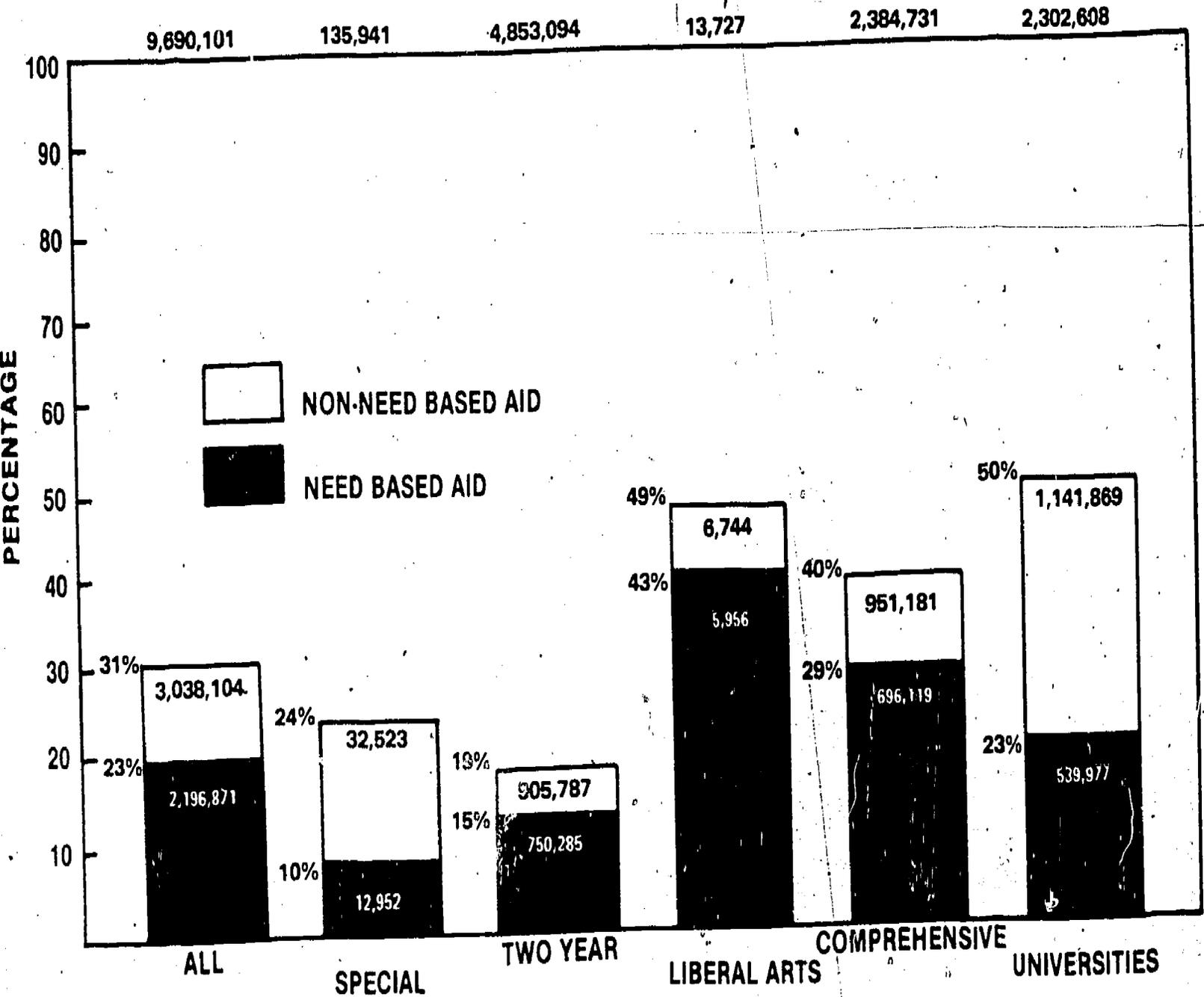
Considering public higher education as a whole, roughly 3.0 million out of 9.7 million students, or 31 percent, received assistance in meeting college attendance costs. However, of the 3.0 million receiving aid, roughly .8 million received only non-need based aid, mostly in the form of Guaranteed Student Loans. The remaining 2.2 million students, or 23 percent of all students enrolled, received combinations of need and non-need based aid, but qualified for need-based aid under at least one federal, state, or institutional aid program.

Figure 1 shows the distribution of need based aid and distributed without regard for financial need (i.e. non-need grants, loans, or work opportunities) aid recipients among the five public institution categories. The figures at the top of the graph, but lined above each type of institution represent the estimated total 1981-82 head count enrollment of each type of institution. The top figures of each institutional column are the percentage of total enrollment accounted for by the total of need and non-need based aid recipients and the total number of students represented by that percentage. The lowest percentage figures report the proportion of total enrollment accounted for by need-based aid recipients.

Among the five types of public institutions, two-year institutions which include community, junior, and technical colleges, had the smallest percentage of aid recipients (19%). Of these only 15 percent (750,285 out of a total headcount enrollment of 4,853,094), over half of which were part-time students, were need-based aid recipients. At the other extreme were the research universities, often the largest and oldest public universities in each state. Here, roughly half of all 2.3 million enrolled students received assistance in some form. However, less than half of these, 23 percent of total enrollment, were need-based aid recipients. In fact, research universities had smaller proportions of their students receiving need-based aid than either the liberal arts colleges or the comprehensive colleges and universities.

Figure 1

STUDENT AID RECIPIENTS AS A PERCENTAGE OF TOTAL ENROLLMENT BY TYPE OF INSTITUTION



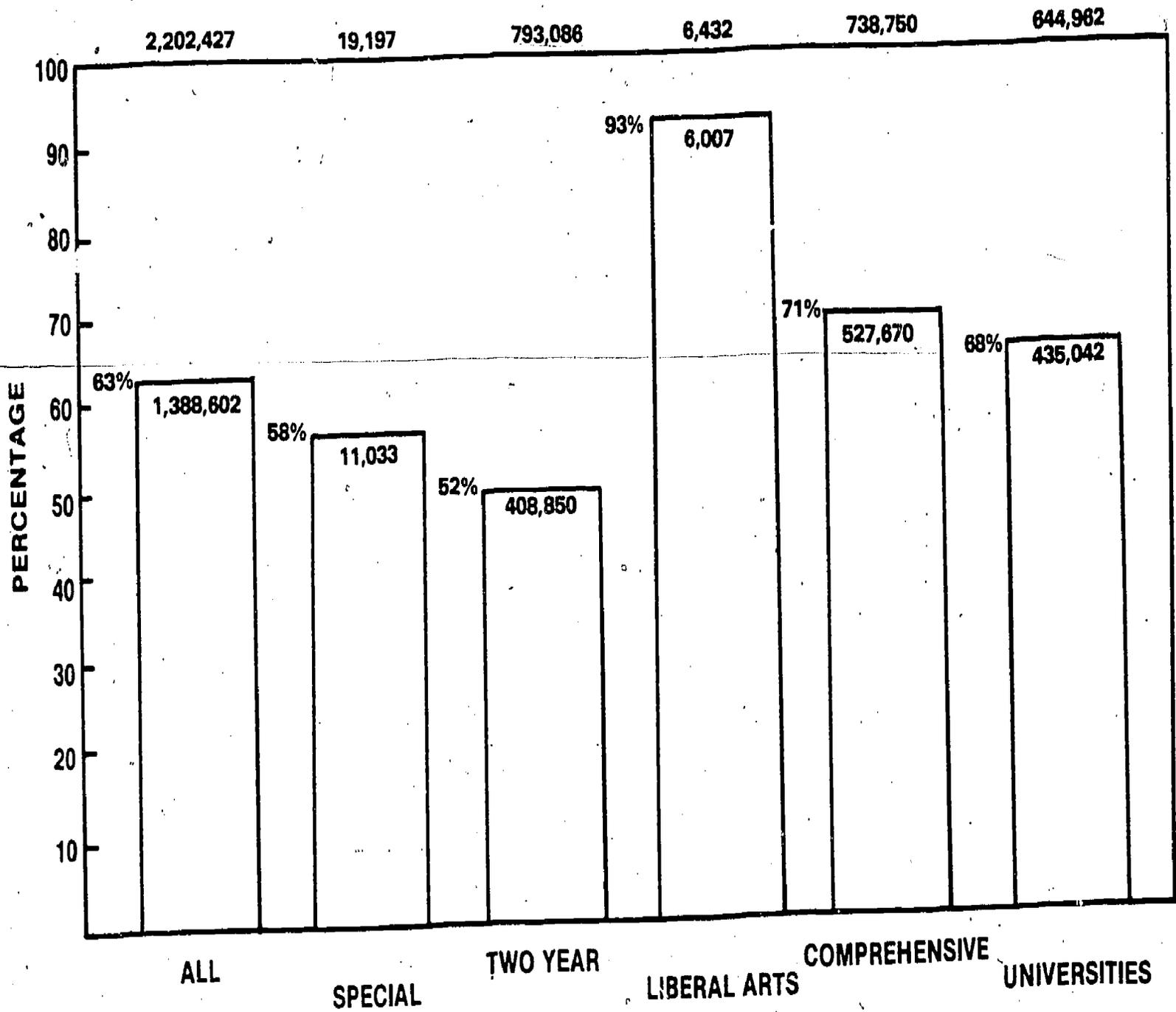
Next to research universities, liberal arts colleges had the highest percentage of students receiving aid (49%). However, unlike the research universities, the percentage of non-need only recipients was small (6%) relative to need-based aid recipients (43%).

Comprehensive colleges and universities followed liberal arts colleges in terms of the percentage of total enrollment receiving aid. Here 40 percent of all students received either need-based or non-need only assistance, while 29 percent, (or .7 out of 2.4 million) of all students received need-based aid. Finally, special mission institutions had the lowest percentage of need-based aid recipients (10%). However, another 14 percent of enrolled students availed themselves of non-need based aid. In total, 24 percent of all students enrolled in special institutions received some form of financial assistance.

From this point forward discussion will be limited to need-based aid recipients attending the five types of public institutions. Another manner in which these institutions vary was in terms of the dependent or independent status of need-based aid recipients. This is illustrated in Figure 2 which shows dependent aid recipients as a percentage of all students receiving need-based aid.

Figure 2

DEPENDENT NEED-BASED AID RECIPIENTS AS PERCENT OF TOTAL NEED-BASED AID RECIPIENTS BY TYPE OF INSTITUTION



Overall, roughly 63 percent of all need-based aid recipients attending public colleges and universities were dependent students. However, at two-year colleges, older students and commuter students reflected the fact that only slightly over half (52%) of all aid recipients were classified as dependents. Likewise only 58 percent of aid recipients at special mission institutions were dependents. By contrast, 93 percent of students at liberal arts colleges were dependent students. Comprehensive colleges and universities had the next highest percentage (71%) and were closely followed by the research universities (68%).

Mainstream Public Institutions

Table 14 compares student aid and expenses among the three major types of public colleges and universities: two-year colleges, comprehensive colleges and universities and research universities. One feature which distinguishes among the three types is tuition. Dependent and independent students attending two-year institutions paid the least, \$613 and \$474, respectively. Next lowest were the comprehensive colleges and universities (\$913 dependents and \$834 independents). Aid recipients paid the highest tuitions at research universities, \$1,233 for dependent students and \$1,091 for independent students.

As for total expenses, among dependent students, the patterns of two-year aid recipients paying least and recipients at research universities paying most is repeated (\$3,289, \$3,745, and \$4,459, respectively). However, the older clientele and a high proportion with

Table 14

Student Aid and Expenses Across Three Types of Institutions

Cost/Aid	Dependents			Independents		
	Two-Year	Compre- hensive	Research Universities	Two-Year	Compre- hensive	Research Universities
<u>Cost</u>						
Tuition	613	913	1,233	474	834	1,091
Total Expenses	3,289	3,745	4,459	6,553	5,705	5,590
<u>Aid</u>						
Grants	1,159	1,144	1,083	1,219	1,312	1,371
Loans	329	765	1,041	462	887	1,318
Work	270	342	329	298	348	487
Other	84	84	279	161	277	370
Total	1,842	2,335	2,732	2,140	2,824	3,546
No. of Recipients	408,850	527,670	435,042	384,236	211,080	209,920
% of Recipients	19	24	20	18	10	10

51

families or dependents of their own resulted in the highest average expenses being at two-year institutions (\$6,553) followed in order by comprehensive colleges and research universities, (\$5,705 and \$5,590, respectively). However, even though average educational expenses were highest for independent two-year college recipients, total assistance was lowest (\$2,140). In fact, for dependent and independent students, total aid among the three types of institutions varied in the same pattern as tuition. That is, aid recipients attending two-year colleges received the least aid, followed next by comprehensive college students and aid recipients at research universities.

Several factors seem to account for the larger amounts of aid received by students at four-year versus two-year institutions. One was the greater use of loans among comprehensive and research university aid recipients. The two-year college aid recipients borrowed roughly half as much as did recipients at comprehensive colleges and universities and one-third as much as research university recipients in both dependent and independent student categories. This was partially reflective of the fact that two-year colleges had low levels of participation in the National Direct Student Loan program and relied primarily on the Guaranteed Student Loan program. Conversely, comprehensive colleges and universities and the research universities made greater use of both the NDSL and GSL programs.

In terms of participation in work study programs, there were relatively minor variations among the three types of institutions, although average awards for two-year college aid recipients were lowest

among the institutions. Research universities predominated in terms of aid distributed through miscellaneous "other" programs and this was reflective of features largely unique to such institutions (e.g., a broad array of professional fields benefitting from special student aid programs and student assistantship programs). Perhaps somewhat surprisingly, grant assistance varied relatively little among the three types of institutions.

Distribution of Aid By Geographic Region

The following discussion focuses on aid recipients as they are distributed across five geographic regions within the United States. These are listed below, along with the percentage of total enrollment in public higher education and the states included within each region.

North Central

Percentage of Total Public Higher Education Enrollment: 23

States: Illinois, Indiana, Iowa, Kansas, Michigan,
Minnesota, Missouri, Nebraska, North Dakota,
South Dakota, Wisconsin.

Mid Atlantic

Percentage of Total Public Higher Education Enrollment: 16

States: Delaware, Washington, D.C., Maryland,
New Jersey, North Carolina, Ohio, Pennsylvania,
Virginia, West Virginia.

North East

Percentage of Total Public Higher Education Enrollment: 9

States: Connecticut, Main, Massachusetts, New Hampshire,
New York, Rhode Island, Vermont.

South/Southwest

Percentage of Total Public Higher Education Enrollment: 23

States: Alabama, Arkansas, Florida, Georgia, Kentucky,
Louisiana, Mississippi, Oklahoma, South Carolina,
Tennessee, Texas, Puerto Rico.

West

Percentage of Total Public Higher Education Enrollment: 28

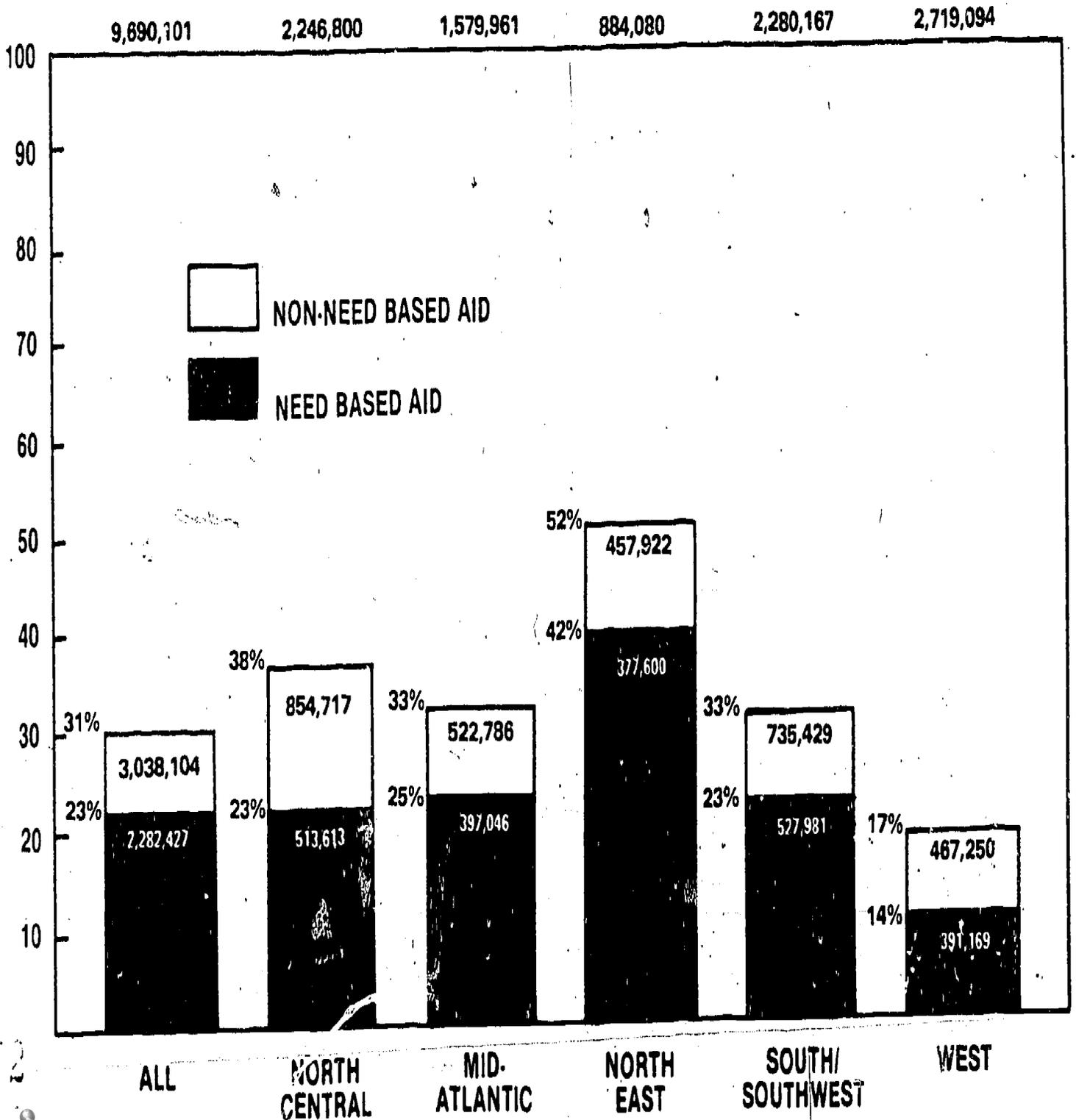
States: Alaska, Arizona, California, Colorado, Hawaii,
Idaho, Montana, Nevada, New Mexico, Oregon, Utah,
Washington.

Proportions of total enrollment accounted for by need-based and non-need only recipients are not uniform across the various regions of the nation. Figure 3 illustrates substantially differing patterns accounted to some extent by varying mixtures of students and types of institutions.

The region with the highest proportion of aid recipients to total enrollment was the North East, composed for the most part of New England states. Here, fully 52 percent of all enrolled students received aid in some form, while 42 percent received need-based student aid. The region with the next highest percentage of enrollment accounted for by aid recipients was the North Central where roughly 38 percent received aid. However, a far smaller 23 percent received need-based aid. One characteristic which distinguished both the North East and North Central

Figure 3

NEED AND NON-NEED BASED STUDENT AID RECIPIENTS AS A PERCENTAGE OF TOTAL ENROLLMENT BY REGION



regions from others was that among all regions these had been hardest hit by the current economic recession. Since our data represent the 1981-82 academic year in which high interest rates and rising unemployment were particularly severe, these conditions may at least partially account for the high proportions of aid recipients in these regions.

The Mid-Atlantic and South/Southwest regions had identical percentages of enrollment receiving some form of aid (33%). These regions also varied only slightly in terms of the percentage of enrollment receiving need-based aid, 25 percent and 23 percent respectively. The West, the largest among the regions in terms of total enrollment, also had by far the smallest percentage of enrollment accounted for by student aid recipients (17 percent). Here need-based aid recipients accounted for only 14 percent of total enrollment. This may partially be accounted for by the presence of California within the region. That state has roughly one quarter of all the nation's two-year institutions and maintains very low or no tuition policies at most public institutions.* Another factor may be the relative prosperity of the West during the current recession.

The following numbers reflect the distribution of need-based dependent and independent aid recipients among the various regions.

*Results for the Western region may also be reflective of underrepresentation in the data of research universities. Fully representative data have been collected, but funds for the study were exhausted before late data for one institution could be fully incorporated into the data base.

Status	North Central	Mid-Atlantic	North-East	South/Southwest	West	Total
Dependent	330,135	269,099	258,142	356,005	175,221	1,388,602
Independent	<u>183,496</u>	<u>127,947</u>	<u>119,458</u>	<u>166,976</u>	<u>215,948</u>	<u>893,825</u>
Total	513,631	397,046	377,600	522,981	391,169	2,282,427

Here it is evident that the West again is unique in that it is the only region in which fewer than half of all aid recipients (45 percent) were classified as dependent students. The North Central states had the next lowest percentage of dependent students (64 percent), while dependents in the three remaining regions accounted for 68 percent of need-based aid recipients.

Following the pattern in previous sections, the next subject to consider is the packaging of various forms of aid among need-based aid recipients. Table illustrates average packages for dependent students across the five geographic regions. Among dependent students, average total aid from all sources increased as total expenses increased, but not as tuition increased. The region with the lowest total expenses however, was also the region with the lowest tuition. In the South/Southwest region the average total expenses were \$3,425 as contrasted with an average tuition of \$576. In this region the average need-based aid recipient received \$2,001 from all sources. The region with the next lowest total expense figure was the Mid-Atlantic (\$3,859) which also had the second highest average tuition (\$1,150). There the average need-based aid recipient received \$2,118. The North Central region followed next with total expenses averaging \$3,905 and tuition

averaging \$1,018. There the average student received aid totaling \$2,369.

The West which averaged the second lowest tuition (\$718), averaged the second highest total cost of attendance \$4,097, and this latter figure is also reflected in the second highest amount of total aid \$2,622. Finally, the North East was highest in terms of both total expenses (\$4,216) and tuition (\$1,237) and it received the highest total

Table 15

Dependent Aid Packages by Geographic Region

Cost/Aid	North Central	Atlantic	North East	South/ Southwest	West
<u>Cost</u>					
Tuition	1,018	1,150	1,237	576	718
Total Expenses	3,905	3,859	4,216	3,425	4,097
<u>Aid</u>					
Grants	1,021	1,196	1,306	1,034	1,170
Loans	930	652	1,221	395	575
Work	276	223	201	389	559
Other	142	47	42	184	318
Total Resources	2,369	2,118	2,770	2,002	2,622

aid \$2,770, averaging almost \$800 more than in the lowest total expense region.

As in most previous comparisons, average grant assistance varied relatively little, within a range of less than \$300 among all the regions. Greater variation was found in the loan category. Average loans ranged between \$395 in the South/Southwest to \$1,221 in the North East and, again, loans mainly accounted for differences in total aid, except in the West where the average loan was only \$575.

The West was also unique in its relatively high use of work-study programs. There, average earnings under work study were \$559 followed by \$389 in the South/Southwest region. Among the remaining regions average earnings from work study programs ranged between \$201 in the North East to \$276 in the North Central region. "Other" aid was also concentrated in the West (\$318).

Table 16 shows the packaging of aid for independent need-based recipients in the various regions. Among independent students, aid paralleled neither total expenses nor tuition. The region with the lowest total expenses (\$5,533) and the lowest tuition (\$508) averaged aid totaling \$2,344. The North East again had the highest total expense (\$7,055) and the highest tuition (\$982) and average total aid of \$2,804. However, in the West total aid exceeded that of the North East, even though the West was the second lowest region in terms of expenses and tuition. The second highest cost of attendance region, the Mid-Atlantic region, averaged total expenses of \$6,444 and a tuition of \$899.

However, in the region total aid was second lowest \$2, . . . Clearly among independent students in this as well as in other categories there is little discernible relationship between cost of attendance and total aid received.

Table 16
Independent Aid Packages by Geographic Region

Cost/Aid	North Central	Mid Atlantic	North East	South/ Southwest	West
<u>Cost</u>					
Tuition	894	899	982	508	541
Total Expenses	6,118	6,444	7,055	5,533	5,701
<u>Aid</u>					
Grants	1,251	1,336	1,582	1,127	1,249
Loans	1,269	515	879	638	725
Work	305	253	205	341	578
Other	<u>227</u>	<u>128</u>	<u>138</u>	<u>238</u>	<u>391</u>
Total Resources	3,052	2,122	2,804	2,344	2,943
Percentage	49%	35%	40%	42%	52%

In terms of the distribution of aid among independent students, loans again appeared to have the greatest power for explaining differences among total aid packages. The three regions with the largest total aid packages West, North East, and North Central largest also had the largest average loans, \$725, \$879, and \$1,269, respectively.

However, unlike the distribution of aid among dependent students, there was considerable variation among the regions in terms of average grants received; and average grants did reflect average costs. The North East had the largest average grant \$1,582 and total expenses were also highest \$7,055. The Mid-Atlantic region averaged the second highest average grant \$1,226 and the second highest total expenses, (\$6,444). The region with the smallest average grant--that being the South/Southwest with a value of \$1,127--also had the lowest figure for average expenses, (\$5,533).

As was the case with dependent students, the West had the largest average work study award \$578 and the highest amount of aid from "Other" sources \$391. Comparing aid received by dependent and independent need-based aid recipients among the various regions is consistent with other categorical comparisons--independent students received larger average awards and larger average grants, but the principal form of aid which distinguished among aid packages was loans.

Origins and Types of Aid

Throughout this report discussion has focused on student aid as it is distributed among various types of need based aid recipients attending public colleges and universities across the nation. Aid received by students has also been discussed in terms of combinations of grants, loans, work and other forms. The "Findings" section of this report concludes with a brief explanation of where the dollars distributed to students attending public higher education originate and how much of the aid they receive is need based as opposed to non-need based.

As Table 17 indicates, student aid dollars received by need-based aid recipients attending public colleges and universities are overwhelmingly federal.

Roughly eight out of ten grant dollars received by dependent and independent need based aid recipients originate in federal student aid programs. Among loans to federal percentage is even higher, more than nine out of ten dollars lent, if one combines loans made under the campus based National Direct Student Loan program and the federally granted but private lender based Guaranteed Student Loan program. With respect to the latter, the federal government insures against defaulted loans and subsidizes private lenders, for the most part banks, who lend to students at below market rates. However, most of the dollars actually lent originate with the private lenders. In Table 17 GSL loans are counted as federal in reference to the major role played by the federal government in maintaining this program. The table also reflects

the fact that roughly three out of four work-study dollars originate in the campus based, but overwhelmingly federally financed College Work-Study program.

Table 17

Federal Aid As A Percent of Grants, Loans and Work-Study
Awards Received by Dependent and Independent Need
Based Aid Recipients¹

Aid	Dependent			Independent		
	Grant	Loan	Work	Grant	Loan	Work
Total Aid	1130	738	317	1187	819	362
Federal Aid	888	680	241	1053	772	276
% Federal	79	92	76	89	94	76

¹Excludes aid from "Other" sources

Table 18 illustrates the percentages of aid received by need based aid recipients from programs requiring that participating students qualify on the basis of financial need and from programs without such requirements (i.e., non-need based).

Table 18

Need and Non-Need Based Aid As Percent of Total Aid Received
by Dependent and Independent Need Based Aid Recipients
(By Source of Funding)¹

Aid	Dependent		Independent	
	Need Based	Non-Need Based	Need Based	Non-Need Based
Federal Aid	66	34 ²	66	34 ²
State Aid	97	3	98	2
Institutional Aid	29	71	25	75

¹Excludes aid from "Other" sources

²Includes GSL

Roughly two-thirds of all student aid dollars received by dependent and independent need based aid recipients from federal programs are distributed on the basis of financial need. By contrast, state aid is almost totally distributed on the basis of demonstrated financial need. The relatively low federal figure is heavily influenced by the fact that during academic year 1981-82 the GSL program distributed loans without regard for need.

During 1982-83 and thereafter the GSL program will be counted among the need-based programs, due to the recent addition of need-based eligibility requirements to that program. Thus, in future years almost all federal aid will be need based. Only institutional programs distribute aid that is primarily non-need based. However, institutional aid represents less than 8 percent of all aid distributed to dependent and independent students. Also, in many cases institutions mainly distribute funds donated by private sources under terms dictated by the donors. For this reason, future distributions of institutional aid may not differ substantially from the pattern noted in 1981-82.

Summary and Conclusions

Within the decade since the Higher Education Act Amendments of 1972 greatly expanded aid to individual students as a governmental function separate from investment in institutions, student aid has become an important factor in public higher education finance and decision making. This report has highlighted some of the dimensions of this change as it had evolved by academic year 1981-82 and has provided information about the aggregate distribution of federal, state, and institutional aid among students attending public colleges and universities.

At the beginning of this paper it was emphasized that creation of a data base on student aid recipients in public higher education was the most important result of the Public Higher Education Student Aid Study. This initial report far from exhausts the analytical utility of a resource whose principal advantage is that it can be used either alone or in combination with other information to shed light on many policy questions associated with student aid. Examples of important questions yet to be addressed include the following: What can be learned from alternative forms of analysis about the distribution of student aid? How can the effectiveness and efficiency of student aid be improved? What are fair and reasonable criteria for assessing the importance of student aid in public as well as independent higher education? How has student aid contributed to improved educational opportunity and social mobility?

Although exploration of the public higher education data base has only begun, the following conclusions are offered at this time.

1. The aggregate of many federal, state, and institutional student assistance programs contributes an institutionally coordinated system aimed at providing access for students from low income backgrounds. In 1981-82 over three million students attending public colleges and universities received financial assistance in some form. Of these approximately 2.1 million were served by an interlocking network of federal, state and institutional student assistance programs which distributed aid on the basis of demonstrated financial need. While individual programs varied considerably in terms of eligibility requirements, and many students who qualified for aid on the basis of need also received non-need based grants and loans (for example, veterans or social security benefits, special program aid and federally guaranteed loans), more than half of all aid recipients qualified for aid on the basis of very low income (i.e., below \$9,290) and over eight out of ten family dependent aid recipients for whom incomes were known came from families earning less than the 1981 Median Family Income (\$25,407).

2. Among need-based aid recipients attending public institutions, grant aid seems generally reserved for students from the lowest income backgrounds. In terms of average awards, grants (both in dollar amounts and proportions of total assistance) rose as incomes declined while the reverse is true for loans. In other words, grant aid is viewed as the floor of support for the most needy students. As incomes rose loans

substituted for grants. This pattern may also reflect a reluctance on the part of the most needy students to assume debt. This possibility is reflected in the fact that total amounts of aid received among students at all income levels were quite similar. However, one of the distinctive characteristics of students from very low income backgrounds was small loans. Another distinction was attendance at low cost institutions.

3. In public higher education student aid mainly provides initial access to higher education. Sixty-five percent of all need-based aid recipients were "lower level" students, that is, students enrolled in their freshmen or sophomore years. However, interpretation of this pattern must consider the large number of aid recipients enrolled in community and junior colleges, by definition two-year or "lower level" institutions. Nevertheless, only about one third of all need-based aid recipients were juniors or seniors and less than 2 percent were graduate students.

4. In public higher education, aid recipients are characteristic of the student clientele that grew most rapidly during the decade of the 1970s. During the 1970s three overlapping categories of students each accounted for more than half of the total increase in full-time college enrollments. These were women, minorities and older students (i.e., students over age 24). Among need-based aid recipients in public higher education slightly more than half (55%) were women and slightly more than one-third (34%) were members of minority groups. Although the data base contains information on student age, lack of available resources

has prevented analysis of older aid recipients. However, preliminary analyses suggest that at least 40 percent of all independent students are married or single with dependents of their own and therefore likely to be older than the "traditional" 18-24 year old college student.

5. In public higher education need-based aid flows primarily to full-time students both dependent on and independent of their parents. Among these, independent students borrowed more than dependent students and received slightly larger grants, but total aid covered a lower percentage of total educational expenses than among dependent students. Slightly more than one-third of all need-based aid recipients were independent students and many of these were older with dependents of their own. As a result, the average total educational expenses of independent students were considerably higher than among dependent students. At this point we have not been able to fully explore for further insight into this important constituency. Yet, independent students are the focus of several proposals for altering their status within existing programs and relatively little is known about them.

6. Analysis of aid as it is distributed to students attending the major types of public institutions suggests that low tuition may play an important role in limiting utilization of student aid. However, this is clear only when the two major types of aid recipients are considered, those who receive aid on the basis of need and those who receive only non-need based aid. For example, among the various types of institutions, two-year institutions average the lowest tuitions and have

the lowest percentage of total enrollment receiving aid in any form. At the opposite extreme, among public research universities which average the highest tuitions, roughly one-half of all aid recipients receive either need-based or non-need only aid. Similarly, among public institutions in the various geographic regions, the percentage of enrollment receiving aid on any basis is lowest in the low tuition South/Southwest and West and highest in the North East where average tuition is the highest in the nation.

When need-based aid recipients are considered separately, the relationship between average tuition and the percentage of enrollment receiving aid is less definite except among two-year colleges and among all colleges in the western region. However the West contains disproportionately large numbers of two-year colleges. The North East region stands as an exception in terms of high tuition and a high percentage of students receiving aid. Among two-year colleges the low percentage of students receiving aid seems mainly reflective of the large proportion of students attending part-time and therefore in most cases are ineligible for need-based aid. If, for example, the percentage of need-based aid recipients at two-year colleges was compared with the number of full-time enrollees at such institutions, the percentage of students receiving aid would be more similar to percentages in other types of institutions. In conclusion, it seems that the percentages of students receiving need-based aid is governed more by the presence of students with low incomes than by institutional tuition. In short, the proportions of low income enrollees attending

major types of public institutions in all regions attending full-time may be remarkably similar.

7. Student aid is primarily a federally supported initiative. Viewed in the aggregate, federal need- and non-need based aid and federally guaranteed aid accounted for roughly eight out of ten student aid dollars, or \$5.2 billion, in public higher education during academic year 1981-82. For dependent and independent students federally sponsored aid accounted for roughly eight out of ten grant dollars, more than nine out of ten loan dollars, and three out of four work study dollars. In short, without federal sponsorship, student aid would exist on only a small fraction of its present scale. From this the conclusion that neither states nor institutions could substitute for federal support without revolutionary changes in their own higher education financing systems seems warranted.

Much has been written about student aid during its decade of rapid growth and development and much criticism has been focused on the complex and heavily regulated processes associated with student assistance programs. However, the impression gained from our initial investigation is that student aid in public higher education promotes vertical equity through a collectively rational aid distribution system. Furthermore, the system is flexible in terms of distributing aid to those in a variety of circumstances where income alone may not be the sole legitimate consideration, such as in the cases of children from large families, families experiencing abrupt reductions in income from one year to another or, students with dependents of their own.

Admittedly, analysis to this point has focused almost exclusively on the overall distribution of resources among need-based aid recipients. Other approaches, such as a closer focus on individual programs or the actual packages of individual students might generate new ideas for improving the effectiveness and efficiency of the existing system.

Another avenue for further investigation might be to test the utility of the public higher education data base as a bridge to other higher education data. In our initial analysis we have focused on the dollar distribution of financial assistance, yet more basic questions such as the effectiveness of student aid in changing the composition of higher education enrollments are also being debated. To date studies raising questions of this kind have not been grounded in data designed to measure the impacts of student aid. Rather they have relied on leaps of inference from data collected for other purposes. Particularly now when the future of student aid is in question, it seems prudent to utilize all available resources in a careful examination of its significance for society as well as higher education.

In retrospect during the past decade the growth and development of student financial assistance seems truly remarkable and causes one to wonder about its driving forces. Was it the debate among academics over whether to finance higher education through students or institutions which in the end accelerated the development of student aid? Was it the rising aspirations of women and minorities for access to higher education, our society's principal route for social mobility? Was it the

desire on the part of independent colleges and universities to shed a stereotypical image as institutions affordable only to the rich? Or, was it a reaction to a turbulent and rapidly changing economy, wherein old industries and their associated occupations were dying while new ones were being born, necessitating the re-entry of many students beyond the traditional college age to obtain timely knowledge and skills?

Yet another explanation has been suggested by Christian Arnold. In America, the states have traditionally been held responsible for sponsoring education. However, as the nation developed into a fully integrated social and economic entity, there was a growing sense that the federal government should join with the states in the financing of education. In higher education during the 1970s, student aid may have been adopted because it was the most widely supported alternative and because it provided a form of assistance previously beyond the means of the states.

All of the above no doubt contributed to the idea expressed by the authors of the Higher Education Act Amendments of 1972, that every citizen deserved a floor of support for his or her college education as "a matter of right." Indeed, in a society that so heavily rewards education and penalizes the lack of it, it is not surprising that serious effort would be made to remove economic barriers to access. At this point in its history student aid is experiencing a most critical evaluation. This, the first comprehensive study of student aid in public higher education, a sector which enrolls roughly eight out of ten American college students, has sought to contribute new information to that effort.

APPENDICES

APPENDIX A

Technical Supplement

Sampling Procedures:

Institutions and student records were selected systematically in order to minimize unwanted variance and to better reflect real variance in the variables of interest--student aid. First, public higher education institutions with enrollments of 500 or more were identified. They were arranged by type of institution and region, creating "type-region" strata or cells. Five institutional types (using Carnegie Commission classifications--research, comprehensive, liberal arts, two-year and special) and five geographical regions (North Central, Mid-Atlantic, North East, Southwest and West) were specified for a total of 25 "type-region" cells. (See Appendix B) Within each cell, institutions were rank ordered by size of enrollment and a random sample of institutions was then drawn, proportionate to the total number of institutions falling into each of the 25 cells. Thus, this was a stratified, random sample of institutions.

The random selection of institutions was accomplished by first dividing the number of institutions in the cell by the desired cell sample size. (For example, the 28 research universities in the Region 1 were divided by six or a 20 percent proportionate cell sample). The resulting value (in this case four) represented the size of sub-cells into which the "type-region" cell was further divided. These subdivisions were then randomly assigned to "A" or "B" categories, and the institutions within each category were randomly assigned a number

one through n (n being in this case, four). Extra institutions--those not falling into "A" or "B" categories were designated "pools" from which replacement institutions were later drawn.

The final cell sample was then drawn including one institution from each "A" or "B" category. Thus, the number of institutions sampled from each cell or "type-region" stratum, totaled the desired n (in the example, six). This procedure left some number of institutions not selected but available for use in future studies. It assured completely random selection of institutions while at the same time representing an even distribution of sizes of enrollments within each "type-region" stratum.

Data Collection:

Packets of materials (including request to participate; an estimated number of survey instruments; an institutional questionnaire; instructions for randomly selecting individual aid recipients and instructions for completing forms) were sent to chief administrative officers under cover of the appropriate sponsoring association (AACJC, AASCU or NASULGC). After agreeing to participate, financial aid officers or their staff conducted the selection of individual student records. The procedure began by computing the number of recipients to be included in the sample, randomly selecting the first record to be drawn from a master list of aid recipients, and then completing the procedure by selecting every subsequent fortieth student. A student aid survey was completed for each aid recipient selected in this manner and sent to the investigators.

Preparation of Data:

Processing of raw data involved visual inspection of each student record by a team of paid graduate students who then checked, via telephone, questionable or unclear information. The following were responses to typical questions.

- 1) The data did not include those who received aid during only the second half of the year but did include those receiving non-government funding; those receiving non-need only types of aid; students who withdrew after receiving their award; those who may not have completed a Financial Aid Form and those who received short term loans.
- 2) Where necessary (i.e., for commuter students) room and board costs were estimated by the institution--those values used by the institution in determining that particular student's aid package.
- 3) Institutions were not asked to go outside of their records to obtain information (e.g., academic departments) but were asked to provide information which was available only in their student financial aid office files.
- 4) In the case of dependent students, income was indicated by the parental Internal Revenue Service (IRS) adjusted gross income; and for the case of independent students, the student IRS adjusted gross income.
- 5) Reported tuition costs were assumed to be consistent with the registration status of the student (i.e., part-time students

paid less tuition in most cases than full-time students at the same institution). However, room and board costs were assumed to be about the same for full-time students as for part-time students.

The raw data were then coded and keypunched by NIICU Data Services, Washington, D.C., after which the final data base was checked by the investigators both manually and via computer. The final data were based on an 84 percent rate of return with proportionate representation of all five types of institutions and regions of the country. Of an initial 269 institutions contacts, 226 agreed to participate. Individual institution samples varied from less than ten student aid records to more than 500 and the final data base contained 11,970 unweighted observations (student aid records).

Weighting Procedure:

The data which are reported here were weighted to reflect the actual numbers of students being represented by the sample. The weighting procedure involved the computation of three factors: an individual school weight which corrected for under-sampling of recipients in each institution (WT1); a cell weight which corrected for under-sampling of institutions within each type-region stratum (WT2), and a final weight which corrected for both and allowed each individual student record to represent some proportion of all student aid recipients in the country. (WT1 X WT2).

Weights were computed by dividing the number of units in the population by the number of units actually obtained in the sample. This value, multiplied by the percentage of return (number of actual units/number of desired units in the sample) provided the desired number of units represented.

For example, each student record sampled was to represent 40 student aid recipients, and aid officers were given instructions to draw such a sample. In a school with 400 aid recipients then, the desired sample size would be 10 records. But if the institutions only provided eight records, each record would only represent one out of fifty. The weight for this school then would be $400/8$ (or 50) to bring the proportion up to one out of every fortieth aid recipient.

Similarly, each school in the sample was to represent five institutions within its "type-region" cell--overall, a 20 percent sample of all public higher education institutions with enrollments over 500. If there were 198 institutions in the cell, the desired sample size would be 39 institutions. But, if only 127 institutions agreed to participate, each institution in that cell would represent one out of 7 and not one out of five institutions. The weight for this "type-region" cell, then, would be $198/27$ or 7.3. Again, this factor multiplied by the percentage of return would provide the desired proportion of institutions within each cell. Thus, at the national level, the 11,970 records finally included in the data base--after weighting--represent 2,202,427 student aid recipients. In other words, one student represented approximately 250 students nationally. Of course, for a

particular individual from a specific institution, the actual number of students he/she represented varied. For example, Slippery Rock University provided 107 student records out of their 2,415 reported aid recipients. The weighting factor, then, was $2,415/107$ or 22.57. Slippery Rock State represented Type 2 institutions (Comprehensive) in Region Two (the Mid-Atlantic states). But overall, the 2-2 "type-region" cell was slightly underrepresented and the correction factor was $71/12$ (5.92). So the actual weighting for records from Slippery Rock State was 22.57 multiplied by 5.92 or 133.6. That is, Slippery Rock State records each represented about 123 students nationally--less than the general figure of 250 student aid recipients.

Final Note:

Most of the data reported in this paper are simple mean values of various types of aid for students, sorted by variables already mentioned (academic level, registration status, etc.). The basic tables--which are consistent with earlier studies--show aggregate student aid package profiles, based on the number of students falling into each group. It is important to note, however, that the use of this "constant n" and its effect on the mean of particular types of aid is a necessity only of the manner in which the aid profile is reported.

For example, about 30 percent of all recipients received work study. If 3 of 10 students received \$800 each and if students not receiving work study were included in the computation of the mean, then the average work study award would be \$240. If non-recipients were not included, the average award would be \$800.

APPENDIX B

Number of Participating Institutions by Type of
Institution and Geographical Region

	North Central	Mid- Atlantic	North East	South	West	Totals
Research Universities	N = 28 n = 7	N = 19 N = 3	N = 12 n = 1	N = 27 n = 6	N = 27 n = 3	N = 113 n = 20
Comprehensive Universities and Colleges	N = 71 n = 13	N = 71 n = 12	N = 44 n = 8	N = 107 n = 19	N = 46 n = 9	N = 339 n = 61
Liberal Arts	N = 1 n = 1	N = 2 n = 1	N = 1 n = 1	N = 5 n = 1	N = 2 n = 0	N = 11 n = 4
Two-Year	N = 187 n = 31	N = 198 n = 28	N = 83 n = 14	N = 187 n = 30	N = 193 n = 28	N = 848 n = 131
Other, Specials	N = 5 n = 1	N = 6 n = 0	N = 14 n = 2	N = 12 n = 2	N = 9 n = 2	N = 46 n = 7
Totals	N = 292 n = 53	N = 296 n = 44	N = 154 n = 26	N = 338 n = 58	N = 277 n = 42	N = 1357 n = 223

APPENDIX C

Partial List of Variables Available in The Public Higher Education
Student Aid Study Data Base

INSTITUTIONAL VARIABLES

FICE Code
 Type of Institution
 State
 Region of the Country
 Total Graduate and Undergraduate Enrollment
 Total Graduate and Undergraduate Aid Recipients
 Total Undergraduate Aid Recipients
 Total Tuition and Fees Revenue, 1981-82
 Total Educational and General Expenditures, 1981-82
 Total Dollar Value of Institutionally Funded Aid
 Dollar Value of Donor Restricted Aid
 Dollar Value of Uncollectable Student Accounts Receivable
 Number of Completed Student Aid Records in Sample

STUDENT DEMOGRAPHIC VARIABLES

Registration Status (part-time, full-time)
 Academic Level
 Local Residence
 Age
 Sex
 Minority Code
 Marital Status
 Number of Dependent Children
 Dependency Status

STUDENT FINANCIAL AID VARIABLES

Parental IRS Adjusted Gross Income
 Father's Earnings
 Mother's Earnings
 Non-Taxable Income
 Student Vet Education Benefits
 Parent's Federal Income Tax Paid
 Number in Parent's Family
 Medical Expenses
 Unreimbursed Elementary and Secondary Tuition
 Student's Net Assets (& spouse)
 Student's Non-Taxable Income
 Student's Income Tax
 Parent's Home Equity
 Parent's Small Business & Farm
 Parent's Other Assets
 Student's IRS Adjusted Gross Income
 Number of Parent's or Student's Family in College

STUDENT FINANCIAL AID VARIABLES (continued)

Parent's Expected Contribution
 Student's Expected Contribution
 Number of Parent's or Student's Family in College
 Tuition and Fees
 Room Charge
 Board Charge
 All Other Budgeted Costs for Students
 Total Costs for Students
 Institutional Non-Need Based Grants
 Institutional On-Campus Earnings
 Institutional Fellowships
 Institutional Assistantships
 Institutional Loans
 Institutionally Financed FISL/GSL
 Institutional Employee Benefits, Discounts, Waivers
 Institutional Employee Discounts/Waivers for Dependents
 All other Institutional Aid
 Federal Pell Grants
 Federal SEOG
 Federal NDSL
 Federal CWSP
 Federal Veterans Payments
 Federal Social Security Payments
 Federal Health Professional Grants
 Federal Health Professional Loans
 Federal Nursing Grants
 Federal Nursing Loans
 All Other Federal Aid
 State Merit Based Grants
 State Need Based Grants (including SSIG)
 State Entitlement Grants
 State Campus Based Grants
 State College Work Study Programs
 State Rehabilitation Grants
 All Other State Aid
 Miscellaneous Grants
 Miscellaneous Loans
 FISL/GSL from Outside Sources
 Off Campus Earnings of Record
 Total Federal Need Based Grants
 Total Federal Non-Need Based Grants
 Total Federal Need-Based Loans
 Total Federal Aid
 Total State Need Based Grants
 Total State Aid
 Total Institutional Non-Need Based Grants
 Total Institutional Aid
 Total Grants and Loans
 Total Grants and Work Study
 Total Loans and Work Study
 Total Grants, Loans and Work Study

100

Appendix D

Summary of Major Student Assistance Programs

Pell Grants

(Named after Rhode Island Senator Claiborne Pell and formerly called the Basic Educational Opportunity Grant program) Provides grants to assist qualified undergraduate students based on financial need and are determined by applying a formula to income, assets and other information provided on a needs analysis document. This "eligibility index", in combination with a calculated cost of attendance at the institution and the student's enrollment status (part time or full time) results in the actual dollar value of the award. The maximum award allowed in 1981-82 was \$1800.00 or one half the cost of attending whichever is lower. The minimum was \$200.00. Students receiving aid under this program may attend public, independent or proprietary postsecondary educational institutions.

SEOG

(Supplemental Educational Opportunity Grant) Provides grants to assist students with exceptional financial need. Federal grants are distributed through institutions which select students to receive the award. The maximum award allowed in 1981-82 was \$2000.00. The minimum was \$200.00. Students receiving aid under this program may attend public or independent non-profit postsecondary educational institutions.

NDSL

(National Direct Student Loan) Provides low interest loans to students based on financial need. NDSL funds are allotted to states by a formula based on the number of full-time higher education students in a state compared with full-time students nationally. Funds to the institutions make up 90 percent of the loan fund and institutions contribute 10 percent. Terms of the loans for the 1981-82 year included a 4% interest rate, repayment beginning six months after graduation with up to 10 years to repay. Maximum loans were \$3,000.00 for students in vocational programs or with less than 2 years completed toward a bachelor's degree; \$6,000.00 for undergraduates in at least the third year toward a bachelor's degree and \$12,000.00 for graduates or professional students. Students receiving aid under this program may attend public or independent non-profit postsecondary educational institutions.

CWSP

(College Work-Study Program) Provides students who have financial need with jobs as part of their financial aid package. Grants flow to institutions for partial reimbursement of wages paid to students working on-campus or off-campus in public or non-profit organizations. The institution's allocation covers 80 percent of the wages and the remainder is paid by the institution, employer or some other donor. Both graduate and undergraduate students are eligible, though most of these funds go to undergraduates. The amount a student can earn depends on financial need and the amount of money the institution has available. Students receiving aid under this program may attend public or independent non-profit postsecondary educational institutions.

GSL

(Guaranteed Student Loan) A federally subsidized corporation, Sallie Mae buys loans from commercial lenders and some educational institutions acting as direct lenders. The latter institutions provide loans at below market interest rates and these loans are free from interest charges while a student is enrolled in an educational program. GSL's were not based on financial need during 1981-82. Interest rates for the 1981-82 academic year were 7% for students with outstanding GSL's and 9% for new borrowers. The maximum yearly loans and total outstanding debt allowed were: \$2,500.00 and \$12,500 for independent undergraduates; \$3,000.00 and \$15,000.00 for independent undergraduates and \$5,000.00 and \$25,000.00 for graduate or professional students. Students receiving aid under the program may attend public, independent or proprietary postsecondary educational institutions.

SSIG

(State Student Incentive Grant) Provides assistance to students with financial need on a 50-50 cost-sharing basis between federal and state governments. Funds are allotted to states as an incentive for states to establish and maintain grant assistance programs for undergraduate students. The states determine specific dollar amounts and must administer the funds through a single state agency which receives no federal allowance for administrative costs. The maximum grant permitted under SSIG is \$1500 per academic year. Students receiving aid under this program may attend public or independent non-profit postsecondary education institutions, or for profit proprietary institutions if state laws permit.

Veterans Administration Payments

Provides assistance to veterans under four programs: 1) G.I. Bill Educational Assistance Program; 2) Vocational Rehabilitation Program; 3) Dependents' Education Assistance Program and 4) Contributory Educational Assistance Program. The G.I. Bill provides up to 45 months of full-time schooling or on-job training for eligible students. The Vocational Rehabilitation program provides full cost of training and a subsistence allowance up to 48 months. The Contributory Educational Assistance Program matches on a 2 to 1 basis money which participants put aside while in the service. The Dependents' Education Assistance Program provides up to 45 months of full time training for eligible dependents of deceased veterans. Students receiving aid under these programs may attend any postsecondary educational program approved by the Federal Veteran's Administration.

Social Security Payments

Until May 1982 this program provided assistance to students with at least one parent who was a deceased, totally disabled, or retired Social Security participant. Average payment was more than \$2000 per year. As of May 1982, Congress eliminated educational benefits for new student participants and sharply reduced benefits for those currently enrolled in college. During academic year 1981-82 the educational benefits program was fully operational and eligible students were required to be full time undergraduates not over 22 years of age.

Nursing Loans and Grants

Provides assistance to students in accredited schools of nursing education. For long-term low interest loans, individual schools select recipients. For 1981-82, maximum loans available were \$2500 and the total outstanding loan could not exceed \$10,000. Interest rates were 3%. Funds for grants to assist students with "exceptional financial need" are also distributed by the institution but based on financial need. Maximum grants for 1981-82 were \$2000.

Health Profession Loans and Grants

Provides assistance to students in accredited schools of medicine, dentistry, osteopathy, optometry, pharmacy, podiatry and veterinary medicine. Participating institutions are responsible for selecting loan and grant recipients. The maximum loan allowed during 1981-82 was \$2500. Grants are awarded to first year, full time students and are limited only to unmet need.

State Programs

Individual states provide their own grant, loan, or work-study, although few states provide all three forms of assistance. In many cases major state grant programs are associated with the federal SSIG program and state loan programs are often linked with the federally subsidized GSL program. A minority of states provide independent work-study programs. Collectively, states also provide a broad range of special purpose student assistance programs with widely varying terms for student eligibility. All together state programs provided slightly less than \$1 billion in student assistance during academic year 1981-82.

Institutional Programs

Individual public colleges and universities may also provide student aid in a variety of forms such as student assistantships, on and off-campus employment opportunities or externally sponsored programs administered by institutions or individual needs in department. Merit and athletic scholarships are examples of the latter. Terms of student eligibility vary greatly from one institution to another, except that in most cases aid from institutional sources account for a very small proportion of aid distributed from all sources.

Other Programs

Government sponsored student assistance programs are augmented by a wide variety of programs funded by private sources such as private individuals, corporations, labor unions and benevolent organizations. In some cases these programs are administered by the institution but in others they are administered directly by sponsoring individuals or groups. Aid from these sources generally represent a very small proportion of aid recorded by institutional student aid offices.

APPENDIX E

Public Higher Education Student Aid Study Participants By
Type of InstitutionUNIVERSITIES

University of South Dakota, SD
 University of North Dakota, ND
 Indiana State University-Main, IN
 Western Michigan University, MI
 University of Iowa, IA
 Purdue University, IN
 University of Wisconsin-Madison, WI
 University of North Carolina-Greensboro, NC
 Kent State University-Main, OH
 University of Maryland-College Park, MD
 University of Maine-Orono, ME
 University of Mississippi-Maine, MS
 University of Arkansas-Main, AR
 University of Louisville, KY
 University of Kentucky, KY
 Texas Tech University, TX
 University of Florida-Gainesville, FL
 University of California at Sant Cruz CA
 Washington State University, WA
 University of California at Berkeley, CA
 University of Montana, MT

COMPREHENSIVE - COLLEGES AND UNIVERSITIES

Peru State College, NE
 Metropolitan State University, MN
 Minot State College, ND
 Indiana State University-Evansville, IN
 Saginaw Valley State College, MI
 Northwest Missouri State University, MD
 Winona State University, MN
 Washburn University of Topeka, KS
 Grand Valley State College, MI
 University of Wisconsin-LaCrosse, WI
 Oakland University, MI
 Southwest Missouri State University, MO
 Eastern Michigan University, MI
 Concord College, WV
 Lock Haven State College, PA
 Central State University, OH
 Mansfield State College, PA
 Frostburg State College, MD
 University of North Carolina-Wilmington, NC
 North Carolina Central University, NC

COMPREHENSIVE - COLLEGES AND UNIVERSITIES (CONTINUED)

University of Baltimore, MD
 Slippery Rock State College, PA
 George Mason University, VA
 William Paterson College, NJ
 Youngstown State University, OH
 University of Maine-Farmington, ME
 North Adams State College, MA
 University of New Hampshire Plymouth State College, NH
 Framingham State College, MA
 State University of New York College at Cortland, NY
 Bridgewater State College, MA
 State University of New York College at Brockport, NY
 City University of New York Queens College, NY
 University of Oklahoma Science & Arts, OK
 Savannah State College, GA
 Mississippi University for Women, MS
 Louisiana State University in Shreveport, LA
 Augusta College, GA
 Florida Agricultural and Mechanical University, FL
 West Texas State University, TX
 Louisiana Technical University, LA
 Stephen F. Austin State University, TX
 University of Texas, El Paso, TX
 Fori Valley State College, GA
 Mississippi Valley State University, MS
 South Carolina State College, SC
 Midwestern State University, TX
 McNeese State University, LA
 Angelo State University, TX
 Southeastern Louisiana University, LA
 Florida Atlantic University, FL
 Central State University, OK
 Lewis-Clark State College, ID
 Southern Oregon State College, OR
 Eastern Washington University, WA
 Portland State University, OR
 California State University-Northridge, CA
 University of Hawaii-Hilo, HI
 Western State College-Colorado, CO
 California State University-Hayward, CA
 California State Polytechnic University-Pomona, CA

LIBERAL ARTS COLLEGES

Mayville State College, ND
 Lincoln University, PA
 University of Maine at Machias, ME
 University of South Carolina at Aiken, SC

TWO-YEAR COLLEGES

Southwestern Community College, IA
 Brainerd Community College, MN
 Itasca Community College, MN
 West Shore Community College, MI
 Haskell Indiana Junior College, KS
 Seward County Community College, KS
 Mineral Area College, MD
 Black Hawk College East Campus, IL
 Highland Community College, KS
 Scott Community College, IA
 East Central Missouri District Junior College, MO
 Highland Community College, IL
 Southeastern Illinois College, IL
 Maple Woods Community College, MD
 Iowa Central Community College, IA
 Northwestern Michigan College, MI
 Rochester Community College, MN
 Anoka-Ramsey Community College, MN
 Morton College, IL
 North Dakota State School of Science, ND
 Western Wisconsin Technical Institute, WI
 Waubensee Community College, IL
 Lewis and Clark Community College, IL
 Elgin Community College, IL
 St. Louis Community College-?Forest Park, IL
 City Colleges of Chicago Wright College, IL
 St. Louis Community College at Florissant Valley, MO
 William Rainey Harper College, IL
 Milwaukee Area Technical College, WI
 Garret Community College, MD
 Roanoke-Chowan Technical College, NC
 Blue Ridge Technical College, NC
 Edgecombe Technical College, NC
 Ohio University Zanesville Branch, OH
 Pennsylvania State University-Worthington Scranton Campus, OH
 Ohio University Chillicothe Branch, OH
 Nash Technical Institute, NC
 Pennsylvania State University-New Kensington Campus, PA
 Dabney S. Lancaster Community College, VA
 Robeson Technical College, NC
 North Central Technical College, OH
 Craven Community College, NC
 Kent State University Trumbull Regional Campus, OH
 Southeastern Community College, NC
 Mountain Empire Community College, VA
 Lenoir Community College, NC
 Forsyth Technical Institute, NC
 Lehigh County Community College, PA
 Luzerne County Community College, PA

TWO-YEAR COLLEGES (CONTINUED)

Central Virginia Community College, VA
 Atlantic Community College, NR
 Thomas Nelson Community College, VA
 Essex County College, NJ
 J. Sargeant Reynolds Community College, VA
 Montgomery College Rockville Campus, MD
 Cental Piedmont Community College, NC
 North Country Community College, NY
 Sullivan County Community College, NY
 Thames Valley State Technical College, CT
 Northwestern Connecticut Community College, CT
 State University of New York College at Cobleskill, NY
 Corning Community College, NY
 State University of New York College at Morrisville, NY
 Berkshire Community College, MA
 Bristol Community College, MA
 Bunker Hill Community College, MA
 Springfield Technical Community College, MA
 City University of New York Bronz Community College, NY
 City University of New York Burough at Manhattan
 Community College, NY
 Nassau Community College, NY
 East Central Junior College, MS
 Patrick Henry State Junior College, AL
 Louisiana State University-Eunice, LA
 Southern University Shreveport-Bossier City Campus, LA
 Panola Junior College, TX
 Holmes Junior College, MS
 Itawamba Junior College, MS
 Copiah-Lincoln Junior College, MS
 Mississippi Delta Junior College, MS
 Piedmont Technical College, SC
 Northern Oklahoma College, OK
 College of the Mainland, T
 South Plains College, TX
 Gadsden State Junior College, AL
 John C. Calhoun State Community College, AL
 Daytona Beach Community College, FL
 Del Mar College, TX
 Richland College, TX
 Tarrant County Junior College, TX
 Northeast Mississippi Junior College, MO
 Wharton County Junior College, TX
 Columbia State Community College, TN
 Macon Junior College, GA
 Northeastern Oklahoma Agricultural and Mechanical College, OK
 Brazosport College, TX
 Edison Community College, FL
 Lee College, TX

TWO-YEAR COLLEGES (CONTINUED)

Southern Oklahoma City Junior College, OK
 Valencia Community College, FL
 Hillsborough Community College, FL
 Navajo Community College, AZ
 Porterville College, CA
 Lassen College, CA
 Maricopa Technical Community College, AZ
 Los Medanos College, CA
 Aims Community College, CO
 Evergreen Valley College, CA
 Skagit Valley College, WA
 Edmonds Community College, WA
 Barstow College, CA
 Gavilan College, CA
 Peninsula College, WA
 Eastgern Arizona College, AZ
 Napa College, CA
 Tacoma Community College, WA
 Colorado Mountain College, CO
 Sierra College, CA
 Merced College, CA
 Southwestern College, CA
 Spokane Falls Community College, WA
 Foothill College, CA
 Los Angeles Valley College, CA
 Pima Community College, AR
 Olympic College, WA
 Western Nevada Community College, NV
 Spokane Community College, WA
 Modesto Junior College, CA
 Santa Ana College, CA
 Fullerton College, CA
 Santa Monica College, CA
 City College of San Francisco
 University of Minnesota Technical College at Crookston, MN
 Indiana Vocational Technical College-Southwest, IN
 Delaware Technical and Community College Southern Campus, DE
 Community College of Beaver County, PA

SPECIAL - MISSION COLLEGES

New Mexico School of Mines, NM
 Colorado School of Mines, CO
 University of Arkansas Medical Sciences Campus, AR
 University of Texas Health Science Center at Houston, TX
 State University of New York Upstate Medical Center, NY
 State University of New York College of Environmental
 Sciences and Forestry, NY
 South Dakota School of Mines and Technology, SD

STUDENT AID RECIPIENT SURVEY ACADEMIC YEAR 1981-82

ALL RESPONSES MUST BE APPROPRIATE CHECKS, ACTUAL
AMOUNTS, OR CODE NUMBER BLANKS. DASHES, N/A, ETC. ARE NOT
ALLOWABLE FOR ACCURATE DATA.

PLEASE READ SURVEY DEFINITIONS BEFORE STARTING

Student Data

1. School FICE Code: _____ 2. Student Study ID: _____
3. Registration Status: (1) Full Time
[11] (2) Part Time
(3) Less than Part Time
4. Academic Level: Undergraduate
[12] (1) First Year
(2) Second Year
(3) Third Year
(4) Fourth Year
(5) Fifth Year
- Beyond Baccalaureate or Fifth Year
- (6) First Professional Medical, Dental, Other
Health Professions
(7) All Other First Professional
(8) All Other Post-Baccalaureate

5. State of legal residence (see Definition No. 5):
[13-14] _____

6. Local Residence: (1) On Campus
[15] (2) In community (off campus)
(3) At home

7. Age: _____
[16-17]

8. Sex: (1) Male
[18] (2) Female
(9) Unknown

9. Minority Code: (1) Black
[19] (2) American Indian/Alaskan Indian
(3) Asian/Pacific Islander
(4) Hispanic
(5) White
(9) Unknown

10. Marital Status: (1) Single
[20] (2) Married
(3) Divorced
(4) Separated
(5) Widowed
(9) Unknown

11. Student's number of dependent children:
[21-22] _____

12. Dependency Status: (1) Dependent (for aid purposes)
[23] (2) Independent (for aid purposes)

Family Resources

13. Parents' IRS adjusted gross income _____ [24-30]
13A. Amount earned by father: _____ [31-37]
13B. Amount earned by mother: _____ [38-44]
13C. Parents' non-taxable income: _____ [45-51]
13D. One-half student's Veterans
Educational Benefits: _____ [52-58]
Parents' Federal income tax paid: _____ [59-63]

- 13F. Total number in parents' family: _____ [64-68]
13G. Unusual medical expenses: _____ [69-73]
13H. Unreimbursed elementary and
secondary school tuition & fees: _____ [74-78]
13J. Net assets of student (and spouse): _____ [79-83]
13K. Student's (and spouse's) non-
taxable income: _____ [84-88]
13L. Student's (and spouse's) income
tax paid: _____ [89-93]
14. Assets: parents' home equity: _____ [#2][31-37]
15. Assets: parents' small business/farm: _____ [38-44]
16. Parents' other assets: _____ [45-51]
17. Student's IRS adjusted gross income: _____ [52-58]
18. Parents' expected contribution: _____ [59-63]
19. Student's expected contribution: _____ [64-68]
20. Number of parents' (or student's)
family in college: _____ [69-70]

Student Costs

21. Tuition/Fee cost for this student: _____ [71-75]
22. Room charge for this student: _____ [76-80]
23. Board charge for this student: _____ [81-85]
24. All other budgeted costs for this student: _____ [86-90]
25. Total budgeted costs for this student: _____ [91-95]

Institutional Aid

26. Non-need-based grant: _____ [96-99]
27. Need-based grant: _____ [100-103]
28. On-campus earnings (estimated
academic year earnings) _____ [104-107]
29. Fellowship Awards: _____ [108-111]
30. Assistantship Awards: _____ [112-115]
31. Loans: _____ [116-119]
32. FISL/GSL Loans (institutionally financed): _____ [120-123]
33. Employee Benefit Discount/Waivers: _____ [#3][11-15]
34. Employee Benefit Dependent Discount/
Waiver: _____ [16-20]
35. All other Institutional Aid: _____ [21-25]

Federal Aid

36. Pell Grants: _____ [26-29]
37. SEOG: _____ [30-33]
38. NDSL: _____ [34-37]
39. CWSP (Estimated Academic Year
Earnings): _____ [38-41]
40. Veteran's Admin. Payments: _____ [42-45]
41. Social Security Payments: _____ [46-49]
42. Health Professions Grant: _____ [50-54]
43. Health Professions Loan: _____ [55-59]
44. Nursing Grant: _____ [60-64]
45. Nursing Loan: _____ [65-69]
46. All other Federal Aid: _____ [70-73]

State Aid

47. Merit-based grant: _____ [74-77]
48. Need-based grant (include SSIG): _____ [78-81]
49. Entitlement grant: _____ [82-85]
50. Campus-based grant: _____ [86-89]

51. College Work Study: () [90-93]
 52. Rehabilitation grant: () [94-97]
 53. All other state aid: () [98-101]

All Other Aid

54. Grants of Record: () [102-106]
 55. Loans of Record: () [107-111]
 56. FISL/GSL Loans from other sources: () [112-116]
 57. Off-campus earnings of record: () [117-121]

Survey Definitions And Clarifications

- School FICE Code:** The 6-digit code assigned by the Federal Inter-agency Committee on Education. One or both of the first two digits may be zero.
- Student Study ID:** Assign a number to this student's record for any future reference. Four digits maximum. Must **not** be student's regular ID.
- Registration Status:** Part-time must be at least 50% of normal full-time as defined by the institution.
- Academic Level:** As recorded by the institution.
- State of Legal Residence:** As reported by the student. Use a 2-digit code.

10. Alabama	38. Nevada
11. Alaska	39. New Hampshire
12. Arizona	40. New Jersey
13. Arkansas	41. New Mexico
14. California	42. New York
15. Colorado	43. North Carolina
16. Connecticut	44. North Dakota
17. Delaware	45. Ohio
18. District of Columbia	46. Oklahoma
19. Florida	47. Oregon
20. Georgia	48. Pennsylvania
21. Hawaii	49. Rhode Island
22. Idaho	50. South Carolina
23. Illinois	51. South Dakota
24. Indiana	52. Tennessee
25. Iowa	53. Texas
26. Kansas	54. Utah
27. Kentucky	55. Vermont
28. Louisiana	56. Virginia
29. Maine	57. Washington
30. Maryland	58. West Virginia
31. Massachusetts	59. Wisconsin
32. Michigan	60. Wyoming
33. Minnesota	61. Guam
34. Mississippi	62. Puerto Rico
35. Missouri	63. Virgin Islands
36. Montana	64. Other
37. Nebraska	
- Local Residence:** Any campus housing is defined as on-campus.
- Student's Number of Dependent Children:** Code 0 for none; Code 9 if unknown.
- Parents' Income:** Code 1 if FAF not submitted by choice, or not requested by college; Code 9 if unknown; Code 0 **ONLY for actual zero dollar income.**

Items 13A through 13L were taken directly from the Basic Grant Formula published by U.S. Department of Education. Concise Item Definitions can be found in that document which you should have in

your files. Code 9 if unknown; Code 0 **ONLY for actual zero dollar amounts.**

14. **Assets—Parents' Home Equity:** Code 1 if not requested or refused; Code 9 if unknown for any other reason.

Items 14-16 refer to parents of dependent students only; student asset information should be entered in Item 13J.

15. **Assets—Parents' Small Business/Farm:** Code 1 if not requested; or refused; Code 9 if unknown for any other reason.

16. **Parents' Other Assets:** Code 1 if not requested; or refused; Code 9 if unknown for another other reason.

17. **Student's IRS Adjusted Gross Income:** Code 1 if not requested; or refused; Code 9 if unknown for any other reason.

21. **Tuition/Fee Cost:** The major tuition fee charge or portion of total costs that represents tuition and fees. Please do not leave blank.

22. **Room Charge:** Enter the room charge used in computing this student's total budgeted costs. Use CSS average if no other calculation is available. "0" is not an allowable entry. If a single charge is made for board and room, divide uniformly by some reasonable percentage. Please do not leave blank.

23. **Board Charge:** Enter the board charge used in computing this student's total budget costs. Use CSS average if no other calculation is available. "0" is not an allowable entry. If a single charge is made for board and room, divide uniformly by some reasonable percentage. Please do not leave blank.

24. **All Other Budgeted Costs:** Enter an estimated amount for all students based on local rules. If necessary, use CSS average amount. PLEASE DO NOT INCLUDE ANY ROOM OR BOARD CHARGES ON THIS LINE. Enter "0" only for actual zero other costs.

25. **Total Budgeted Costs:** This entry must equal the total of lines 21, 22, 23, and 24.

26. Use the term "non-need-based" instead of "merit" to identify students receiving grants without regard to need, whether or not merit is taken into consideration.

30. **On-Campus Earnings:** Enter the amount you expect this student to earn. Not to be confused with CWSP earnings reported in Item 39.

31. **Loans:** Enter loans from institutional funds that are **NOT** backed by FISL/GSL agreements.

- 33-34 **Employee Benefit Tuition Discount/Waiver:** Enter the value of discounts or waivers given to employees or their dependents.

48. **State Need-based Grant:** State Student Incentive Grant funds to be included in this amount.

54. to 57.

All Other Aid: Include only those items of record. Estimates or guesses should not be recorded.

111

APPENDIX G

Bibliography

- Aaron, Henry J. Politics and the Professors: The Great Society Perspective. Washington, D.C.: Brookings Institution, 1978.
- Arnold, Christian K. "A Historical Perspective: The Federal Role in Funding Education." Change Magazine, September (1982): 39-54.
- Babbidge, Homer D., Jr., and Rosenzweig, Robert M. The Federal Interest in Higher Education. New York: McGraw-Hill, 1962.
- Bowen, Howard R. Investment in Learning: The Individual and Social Value of American Higher Education. San Francisco: Jossey-Bass, 1977.
- Breneman, David W., and Finn, Chester E., Jr., Public Policy and Private Higher Education. Washington, D.C.: The Brookings Institution, 1978.
- Carnegie Commission on Higher Education. Higher Education: Who Pays? Who Benefits? Who Should Pay? New York: McGraw-Hill, June 1973.
- Comptroller General of the United States. "Inconsistencies in Awarding Financial Aid to Students and Four Federal Programs." Washington, D.C.: Report to the Congress of the United States, HRD-79-16, May 11, 1979.
- Fife, Jonathan D. The College Student Grant Study. University Park: Center for the Study of Education, Pennsylvania State University, May 1975.
- Finn, Chester E., Jr. Scholars, Dollars and Bureaucrats. Washington, D.C.: The Brookings Institution, 1978.
- Frances, Carol. An Economist Looks at Low Tuition. Washington, D.C.: American Council on Education, 1977a.
- Friedman, Milton. "Role of Government in Education." In Economics and the Public Interest, edited by R.A. Solo. New Brunswick, N.J.: Rutgers University, 1954.
- Friedman, Milton. "The Higher Schooling in America." The Public Interest, Spring 1968.
- Gladieux, Lawrence E., and Wolanin, Thomas R. Congress and the Colleges. Lexington, Mass.: Lexington Books, 1976.
- Hansen, W. Lee. "Equity and the Finance of Higher Education." Journal of Political Economy 80 (1972): 260-274.

- Hyde, William D., Jr. "The Effect of Tuition and Financial Aid on Access and Choice in Postsecondary Education." Paper presented at the Postsecondary Education Finance Conference, Denver, Colorado, November 1977.
- Leslie, Larry L. Higher Education Opportunity: A Decade of Progress. AAHE-ERIC/Higher Education Research Report No. 3. Washington, D.C.: American Association for Higher Education, 1977.
- Levin, Henry M. "What Are the Returns on a College Education?" In Students and Their Institutions: A Changing Relationship, edited by J.W. Peltason and March V. Messengale. Washington, D.C.: American Council on Education, 1979.
- McConnell, T.R.; Berdahl, Robert O.; and Fay, Margaret A. From Elite to Mass to Universal Higher Education: The British and American Transformations. Berkeley: Center for Research and Development in Higher Education, University of California, 1973.
- National Commission on Financing Postsecondary Education. Financing Postsecondary Education in the United States. Washington, D.C.: Government Printing Office, December 1973.
- National Institute of Education. Higher Education Financing in the Fifty States. Washington, D.C.: National Institute of Education, September 1979.
- National Institute of Independent Colleges and Universities Office of Research. Federal Student Assistance and Categorical Programs. Washington, D.C.: 1980.
- Okun, Arthur. Equality and Efficiency: The Big Tradeoff. Washington, D.C.: The Brookings Institution, 1975.
- O'Neil, June. Resources Use in Higher Education: Alternatives for the Federal Government. Iowa City, Iowa: American College Testing Program, 1971.
- Orwig, M.D., ed. Financing Higher Education: Alternatives for the Federal Government. Iowa City, Iowa: The American College Testing Program, 1971.
- Pressman, Jeffery L., and Wildavsky, Aaron B. Implementation. Berkeley: University of California Press, 1973.
- Rice, Lois D., ed. Student Loans: Problems and Policy Alternatives. New York: College Entrance Examination Board, 1977.
- Rivlin, Alice M. Toward a Long-Range Plan for Federal Financial Support for Higher Education: A Report to the President. Washington, D.C.: Department of Health, Education, and Welfare, January 1969.

Smith, Patricia, and Kent, Laura, eds. The Impact of Basis Grant Programs on the States. Washington, D.C.: American Council on Education, August 1977.

Stampen, Jacob O. The Financing of Public Higher Education: Low Tuition, Student Aid and the Federal Government. AAHE-ERIC/Higher Education Research Report No. 9. ERIC Clearinghouse on Higher Education. Washington, D.C.: 1980.

Thackery, Russel I. The Future of the State University. Urbana: University of Illinois Press, 1971.

Thierney, Michael L. "The Impact of Financial Aid on Public/Private Postsecondary Education: Some Policy Implications." University Park: Center for the Study of Higher Education. The Pennsylvania State University. Paper presented at the Association for the Study of Higher Education Annual Meeting, Washington, D.C., April 19, 1979.

Weathersby, George B. "A Broad View of Individual Demand for Postsecondary Education: Major Policy Issues." Paper presented at the National Center of Higher Education Management Systems, National Invitational Seminar, Reston, Va., May 16, 1974.

Young, Kenneth, ed. Exploring the Case for Low Tuition in Public Higher Education. Washington, D.C.: American Association of State Colleges and Universities, American Association of Community and Junior Colleges, National Association of State Universities and Land-Grant Colleges, 1974.