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ABSTRACT

The issue of participation rates of college students at the international, national, state, and institutional levels is addressed. At each level, attention is directed to potential data sources, problems associated with using the data, actual participation rates, and applications to educational planning. College participation rates at the international level provide an indication of the importance of postsecondary education to a country, and can be used to determine how a country ranks among other countries. At the national level, participation rates in the United States are available annually for different population groups and the most common breakdowns are for sex, age, race, and income. Uses of the state-level participation rates include: (1) enrollment projections and (2) as a relative measure of access to and importance of higher education in the state compared to other states. At the institutional level, participation rates can be determined at almost any level, such as schools or programs. Data tables include: postsecondary participation rates for 12 countries for selected years; college participation rates by age, sex, race, and ethnicity; participation rates of high school graduates by state; and participation rates for state residents per 1,000 population for 1978. (SW)

Using College Participation Rates: Opportunities and Pitfalls

May 1983

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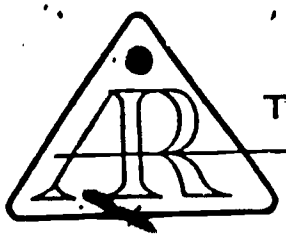

THE ASSOCIATION FOR INSTITUTIONAL RESEARCH

This paper was presented at the Twenty-Third Annual Forum of the Association for Institutional Research held at the Sheraton Centre in Toronto, Ontario, May 23-26, 1983. This paper was reviewed by the AIR Forum Publications Committee and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC Collection of Forum papers.

D. R. Coleman, Chairman
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Abstract

Changes in the patterns of college participation rates are becoming of increasing importance to college and university administrators since enrollments are closely linked to the financial health and stability of educational institutions. This paper addresses the issue of participation rates of college students at the international, national, state, and institutional levels. At each level potential data sources will be introduced, problems associated with using the data will be analyzed, some participation rates will be presented, and their applications to educational planning will be discussed.

Using College Participation Rates:
Opportunities and Pitfalls

Changes in the patterns of college participation rates are becoming of increasing importance to college and university administrators since enrollments are closely linked to the financial health and stability of educational institutions. In the explosive decades of the 1960s and 1970s enrollments in American higher education more than doubled. There is confusion, however, over enrollment trends for the 1980s: it is not clear whether enrollments will rise, fall, or remain constant. In Three Thousand Futures the Carnegie Council addresses the concern that "in a largely enrollment-driven system of higher education, decreasing enrollments can potentially have unfortunate impacts on academic excellence, on accumulation of scientific knowledge, on future capacity to interpret the past culture and the current human predicament, on the tone and spirit of an essential segment of American society, and on the survival of private initiative and institutional autonomy" (Carnegie Council 1980).

In an effort to retain excellence in higher education, and in return, the economic and social development and overall quality of life, college and university planners will be called upon to answer questions such as:

- How many students will enroll in future years?
- What will they be like?
- What will their needs be?

One technique that can be used to answer questions such as these is a college participation rate or a college-going rate.

A college participation rate is defined as the share of a population group that is enrolled in college. For example, in 1980 of the 160 million people in the United States over 18 years of age, approximately 12 million were enrolled in college. The college participation rate is, then, 7.5 percent (NCES 1982). An overall participation rate is generally of relatively limited use. A more useful participation rate is one that is calculated for different population groups defined by sex, age, race, or income. Of course any subgroups where data are available can be used.

In computing participation rates, the first step is to determine what variables will be analyzed and determine if data are available both for enrollment and for population. The numerator of the participation rate, enrollment, can generally be collected from educational records. For example, the National Center for Education Statistics (NCES) collects enrollment statistics from almost the entire universe of colleges and universities in the United States by sex and race; at individual institutions, enrollment data can often be found in even greater detail. The denominator (population) may be more difficult to obtain. Often the data are not aggregated in a manner that is desirable or simply are not available. For example, if interest lies in determining the college participation rates of 18-24 year olds by race for the counties from which an institution enrolls its students, the numerator could probably be obtained from institutional records; however, population statistics of 18-24 year olds by race and by county probably are not available. Consequently, both the numerator and denominator must be carefully selected. Nonetheless, given certain data constraints, studying participation rates can provide the educational planner with valuable information on enrollment structure, educational demands, and how these demands are changing.

This paper will address the issue of participation rates at several levels: international, national, state, and institutional. At each level potential data sources will be introduced, problems associated with using the data will be analyzed, some participation rates will be presented, and their applications to educational planning will be discussed. The national and state level analyses will be restricted to the United States, although the information can be generalized to other countries.

International

The relative importance of higher education in a country can be measured by estimating the number of students that enroll (Harris 1972). Among the difficulties in making such estimates among countries are the lack of data collected and when data are collected, the data are often incompatible from country to country. Different census dates for each country and differential age data aggregations compound this problem.

Estimates of the number of students enrolled in postsecondary or third level educational institutions for a number of selected countries are in Table 1. The data are extracted from the UNESCO Statistical Yearbook which includes in its definition of third level educational institutions both universities and degree granting institutions, and all other education at the third level in non-university institutions (teacher training colleges, technical colleges, etc.) (UNESCO 1982). If interest lies only in colleges and universities, these data may be slightly inflated.

Nonetheless, Table 1 does give some indication of the magnitude of postsecondary education in the countries selected and how this has been changing between 1970 and 1980. With the exception of Canada, the United

States ratio of 5,225 is between two and four times higher than any of the countries listed. Each of the selected countries has increased its participation between 1970 and 1980 although some countries, including the United States, Japan, and France had higher participation prior to 1980. Korea experienced the largest gain during this 10-year period, more than doubling its participation of students in college. For this selected group of countries, college participation in the U.S.S.R. remained the most stable.

Since a great number of students who attend postsecondary institutions are between the ages of 18-24, participation rates for this age cohort may be of special interest. Ideally, the ratio should apply enrolled students 18-24 years to the same age population. For an international comparison, however, these data are not available. Total enrollment in postsecondary education as a percentage of the 20-24 population is the closest ratio that is available (Table 2). The discrepancies in the data available for the numerator and denominator should be kept in mind when interpreting the data in Table 2. College participation as a percentage of 20-24 year olds ranges from a low of 10.0 percent in Hong Kong to 54.9 percent for the United States in 1979.

College participation rates at the international level are for the most part very gross figures and should be treated as such. In addition, the data are somewhat dated. They can, however, provide an indication of the importance of postsecondary education to a country (high ratio=great importance). It can also be used to determine how a country ranks among other countries in terms of postsecondary education. For instance, the United States is concerned that it may be falling behind other industrialized countries in terms of high technology. If the assumption is made that college participation is related to

knowledge and innovations in high technology, then the United States is still in the forefront (Hodgkinson 1983).

National

At the national level participation rates of college students in the United States are available annually for different population groups. The most common breakdowns are for sex, age, race, and income, or some combination thereof. The National Center for Education Statistics (NCES) HEGIS "Fall Enrollment of Institutions of Higher Education" survey and the Current Population Reports of the Bureau of the Census are two major sources for obtaining data for calculation of participation rates at the national level.

Nationally the HEGIS survey is the best source available for data on enrollments. The data collected in this survey include fall enrollments by sex, attendance status, student level, and first-time-in-college students from almost every college and university in the United States. In even-numbered years enrollments by racial/ethnic category and program major are also collected. NCES publishes these data annually. One major drawback to the HEGIS data is that due to the magnitude of the surveys, results are not published from between one to two years after the survey is conducted. For someone who needs current information, this can be a problem. A second drawback to the HEGIS enrollment survey is the limited amount of information that is collected: items such as enrollments by age and income level of students are frequently requested but unavailable. It is recognized, however, that collection of additional data would be a formidable task both for NCES and the reporting institutions.

Data on age and income as well as sex, race, and attendance are available from the Bureau of the Census in the Current Population Reports on "Population Characteristics" (Series P-20) which are based on a sampling of the population. Accuracy of the data are dependent on the problems inherent with sampling and in the knowledge of the person providing information on activities of each member of the household (Tierney 1982). In addition, much of the data on college students is reported only for students 14 to 34 years old; with increasing numbers of "older" students entering college, exclusion of students over 34 years of age may not present an accurate profile.

College participation rates by age and sex are displayed in Table 3. As expected, the rate of college attendance varies inversely with age with the rate highest for 18-21 year olds and lowest for 30-34 year olds for both males and females. In 1970 men participated in higher education at higher rates than women (19.2 percent versus 11.6 percent), but by 1980 the differences had narrowed such that participation rates were almost equal for both sexes. This is a result of a decrease in college participation for men, and an increase for women. This was true for all age levels.

The trends in college participation by race and ethnicity from 1970 to 1980 are presented in Table 4. The percentage point difference in college participation for Whites, Blacks, and Hispanics had been reduced between 1970 and 1980, although in 1980 participation for all three subgroups of the population had decreased from earlier years.

In addition to looking at national participation rates, participation by region of the country is another useful breakdown. Tierney (1982) compared college participation rates for the United States and four regions (Northeast, North Central, South, West) from 1973 to 1979 by sex, race, age, and income

using data from the Current Population Reports. Results of his study of college participation by income quartile are displayed in Figure 1. Tierney found that the probability of attending college is directly related to family income: students from higher income levels participate in higher education more than students from other levels.

Participation rates at the national level are available in greater detail than at the international level; however, for some types of analyses, these data are still not without limitations. National and regional participation rates may best be used by individual institutions or state systems for comparison purposes. For example, a state system office could compare college participation rates of minorities in the state with the national figures to determine whether the state enrolls relatively more or fewer minorities than the nation as a whole. It is important to remember that much of the national and regional data are based on samples and typically report data only for 18-34 year olds. Institutions with large numbers of students 35 or over may not find it appropriate to use these numbers for comparisons.

State

Although many state-level agencies have data that can be used to calculate statewide participation rates, overall, these data are no easier to obtain than at the international or national level, and they also have some problems. One of the most frequently requested participation rates at the state level is that of recent high school graduates into college. To calculate this rate, the number of first-time freshmen who graduated the previous spring is divided by the pool of high school graduates. For this particular participation rate, the data associated with both the numerator and denominator present problems. There is no national data collection that distinguishes first-time freshmen who

graduated in the spring from other freshmen. Regarding data for high school graduates, most studies report public high school graduates only--estimates are sometimes made for non-public graduates.

Since the college-going rate of high school graduates is important, an attempt was made to calculate this as shown in Table 5. The numerator is drawn from the HEGIS survey, "Residence and Migration of College Students, Fall 1979" which reports first-time-in-college freshmen. Unfortunately, these data include both recent and non-recent graduates inflating the participation rates for all states. This is especially notable for Arizona, California, and Oregon where the rate exceeds 100 percent. The number of high school graduates are data reported by NCES, which estimates the numbers for non-public graduates. The rates from this particular table are useful in determining the participation of high school students relative to other states, but caution should be used in using this table solely as the participation rate of 1979 high school graduates into college.

Another source of participation rates for college students by state can be found in NCHEMS Higher Education Financing in the Fifty States (McCoy and Halstead 1982). One feature of the participation rates in this study is that the data are indexed to the United States average (U.S.=100) which provides a reference to a state's high or low position. Another feature is that most of the rates are reported in terms of per 1000 population for the state which facilitates interstate comparisons. The enrollment data used in this publication are retrieved from the HEGIS survey, "Fall Enrollment in Institutions of Higher Education, 1978" and "Residence and Migration of College Students, Fall 1979". The population data are from the U.S. Bureau of the

Census. The data presented in Tables 6, 7, and 8 are extracted from the NCHEMS study.

Participation rates for state residents for total enrollments (undergraduate and graduate) are in Table 6. The states average 33 resident students per 1000 population, with California leading the nation with 43 students per 1000 population (index=130) and West Virginia and District of Columbia trailing with 23 students (index=70).

Two college participation rates for public institutions are presented in Table 7. The first, Table 7a, is a measure of first-time resident enrollment in public institutions as a percentage of high school graduates. The second, Table 7b, measures first-time resident enrollment per 1000 population. In both tables Arizona and Oregon rank first and second, and Vermont ranks last.

A participation rate that represents the attractiveness and accessibility of public institutions to new students (resident and non-resident) per 1000 population is displayed in Table 8. Again, Arizona leads the nation with 20.1 students per 1000 population (compared to U.S. average of 8.8) and the District of Columbia is ranked last with 4.3 students.

Although the NCHEMS study is an annual study and provides some good measures of participation rates, one problem comes to mind: the timeliness of the data. The data are several years old before they are published. For instance, enrollment statistics based on fall 1980 will be published late this fall; the data will then be three years old. If participation rates are to be used for projecting enrollments at the state level, then the most recent data are definitely preferable.

Participation rates at the state level tend to be more useful than at the international and national levels. One use of the state-level participation rates is in enrollment projections, where the projections are the product of the participation rate times the appropriate "pool" of students. Another use for the participation rate at the state level is as a relative measure of access to and importance of higher education in the state compared to other states.

Institutional

At the institutional level participation rates typically are the easiest to obtain and have the widest variation because they can be based on any number of variables that an institution collects. In addition, participation rates can be determined at almost any level such as schools or programs. The only limitation for participation rates at the institutional level would be if comparable data for the denominator were not available. The calculation for this level is, of course, the same as the other levels. Participation rates at the institutional level are commonly used in projecting enrollments, in trend analysis (i.e., how are trends in participation changing over time), and in comparisons of participation rates with other institutions or programs.

Although participation rates at the institutional level are more accessible than at the other levels discussed, comparisons of institutional participation rates may be the most misleading due to different missions of institutions and program mixes within the institution. Thus, if institutions are willing to share data or the data are published statewide, particular care must be taken to select peer institutions for which comparisons would be valid.

A second use for institutional participation rates is in making enrollment projections which are made the same way as state projections. An analysis of the trends is useful at this point. For example, if over the past ten years an institution finds that the participation of women has increased approximately 1 percent each year and this trend is expected to continue over the period of the projections, then this information should be taken into account when making projections.

At the institutional level, other offices besides the planning office and administration can benefit from the information provided by participation rates. For instance, participation rates can be used as an aid in recruitment. If, for example, the enrollment of women is significantly lower than would be expected, then recruitment efforts could be directed accordingly.

Conclusion

Throughout this paper many of the problems associated with using participation rates have been discussed. Although there are problems with the data, there are also some advantages for planners in using participation rates. For instance, using participation rates for enrollment projections is a practical technique and easily applied. In addition, participation rates can provide considerable information about the structure of enrollments at the national, state, and institutional levels; this information can be useful at all levels in making policies. For example, if at a national level it is apparent that students from lower income levels do not participate at the same rate as those from higher income levels, the federal government may reconsider the distribution of financial aid or recommend a program to encourage persons from lower income levels to enroll. Overall, participation rates can provide

educational planners with valuable information that will enhance planning and policy-making decisions at all levels.

Table 1

Postsecondary Participation Rates for Selected Countries:
Number of Students Enrolled per 100,000 Population

	1970	1975	1977	1978	1980
United States	4,148	5,328	5,183	--	5,225
Canada	3,000	3,600	3,536	3,503	3,539
Sweden	1,756	1,985	2,312	2,414	--
Australia	1,432	2,016	2,148	2,191	2,219
Japan	1,744	2,017	2,149	2,127	2,100
France	1,581	1,970	2,051	1,921	1,990
U.S.S.R.	1,895	1,916	1,957	1,967	1,976
Italy	1,283	1,749	1,870	1,931	1,937
Germany	830	1,684	1,748	1,815	1,886
United Kingdom	1,084	1,308	1,356	1,408	1,429
Korea	631	842	999	1,126	1,347
Hong Kong	648	1,012	1,052	1,104	1,147

Source: UNESCO, Statistical Yearbook, 1982.

Table 2

Postsecondary Participation Rates for Selected Countries:
Enrollment as a Percent of 20-24 Year Olds

	1970	1975	1977	1978	1979
United States	49.4	58.2	55.5	55.6	54.9
Sweden	21.4	28.8	34.9	36.6	--
Canada	34.6	39.3	37.6	36.4	35.9
Japan	17.0	24.6	28.5	29.3	29.8
Italy	16.7	25.1	26.8	27.4	27.1
Germany	13.4	24.5	24.8	25.7	26.4
Australia	16.6	24.0	25.4	25.7	25.8
France	19.5	24.4	25.8	24.2	25.1
U.S.S.R.	25.4	22.2	21.6	21.4	21.3
United Kingdom	14.1	18.9	19.5	19.9	19.7
Korea	7.9	9.6	10.1	10.7	12.2
Hong Kong	7.4	10.1	--	10.0	10.0

Source: UNESCO, Statistical Yearbook, 1982.

Table 3

College Participation Rates by Age and Sex:
1980, 1978, and 1970

Sex and Age	Percent Enrolled 1980	1978	1970
Men, 18-34 years	15.9	17.0	19.2
18-19 years	34.3	35.0	40.2
20-21 years	31.7	30.7	40.9
22-24 years	17.3	18.7	20.6
25-29 years	9.5	10.8	10.6
30-34 years	5.7	6.2	4.8
Women, 18-34 years	15.3	14.5	11.6
18-19 years	37.6	36.1	34.6
20-21 years	28.2	26.2	22.3
22-24 years	14.4	13.0	8.9
25-29 years	8.3	7.7	3.7
30-34 years	6.7	5.9	2.6

Source: U.S. Department of Commerce, Bureau of the Census, "Social and Economic Characteristics of Students," Current Population Reports, Series P-20.

Table 4

College Participation Rates of Persons 18 to 34 Years Old, by Race and Ethnicity: 1970-1980

Year	White	Black	Hispanic
1970	15.8	10.6	NA*
1971	16.3	11.7	NA*
1972	16.0	12.0	8.3
1973	15.2	10.6	10.3
1974	15.7	12.7	11.5
1975	16.8	14.3	12.7
1976	16.6	15.5	14.2
1977	16.6	15.6	11.8
1978	15.8	14.0	10.0
1979	15.7	13.2	11.0
1980	15.8	13.0	10.2

* NA=Not Available

Source: U.S. Department of Commerce, Bureau of the Census, "Social and Economic Characteristics of Students," Current Population Reports, Series P-20.

Table 5

College Participation Rates of High School Graduates by State: 1979

State	1979 First-time Freshmen Enrollment*	1979 High School Graduates	Participation Rate
Alabama	33,823	51,237	66.0
Alaska	4,227	5,288	80.1
Arizona	42,423	31,659	134.0
Arkansas	17,378	29,502	58.9
California	354,568	290,600	122.0
Colorado	26,110	39,434	66.2
Connecticut	39,857	47,069	84.7
Delaware	7,029	9,490	74.1
D.C.	6,920	7,412	93.4
Florida	74,840	98,033	76.3
Georgia	34,103	67,179	50.8
Hawaii	9,904	14,137	70.1
Idaho	9,348	13,757	68.0
Illinois	149,111	162,930	91.5
Indiana	42,327	80,382	52.7
Iowa	34,045	49,288	69.1
Kansas	28,372	34,132	83.1
Kentucky	26,885	45,402	59.2
Louisiana	31,039	55,761	55.7
Maine	8,675	17,302	50.1
Maryland	46,591	62,214	74.9
Massachusetts	78,115	90,207	86.6
Michigan	111,379	144,686	77.0
Minnesota	41,972	70,896	59.2
Mississippi	28,192	31,768	88.7
Missouri	42,874	71,963	59.6
Montana	7,328	12,618	58.1
Nebraska	21,629	25,647	84.3
Nevada	5,328	8,669	61.5
New Hampshire	8,062	14,353	56.2
New Jersey	86,151	112,843	76.3
New Mexico	10,065	19,762	50.9
New York	194,150	244,735	79.3
North Carolina	64,859	75,364	86.1
North Dakota	8,154	11,185	72.9
Ohio	99,371	167,751	59.2
Oklahoma	29,749	40,225	74.0
Oregon	40,529	31,728	127.7
Pennsylvania	100,635	185,242	54.3
Rhode Island	11,218	13,043	86.0
South Carolina	33,597	40,979	82.0
South Dakota	6,835	11,742	58.2
Tennessee	37,820	52,503	72.0
Texas	146,502	175,218	83.6
Utah	15,206	20,495	74.2
Vermont	4,019	7,921	50.7
Virginia	39,060	71,527	54.6
Washington	28,822	53,908	53.5
West Virginia	14,745	24,470	60.2
Wisconsin	63,112	78,291	80.6
Wyoming	4,625	6,107	75.7

* Students are enrolled in state or out of state.

Sources: NCES "Residence and Migration of College Students, Fall 1979" and NCES, Digest of Education Statistics, 1981.

Table 6

College Participation Rates for State Residents

Per 1000 Population

1978

Rank	State	Per 1000 Population	Index
1	California	43	130
2	Massachusetts	39	118
3	Arizona	39	118
4	Washington	39	118
5	Oregon	37	112
6	Hawaii	37	112
7	North Dakota	37	112
8	New York	37	112
9	Wisconsin	35	106
10	Colorado	35	106
11	Utah	35	106
12	Illinois	35	106
13	Nebraska	35	106
14	Oklahoma	34	103
15	Kansas	34	103
16	North Carolina	34	103
17	Michigan	34	103
18	Texas	33	100
19	Alaska	33	100
20	New Jersey	32	97
21	Connecticut	32	97
22	Minnesota	32	97
23	Maryland	31	94
24	Mississippi	31	94
25	South Carolina	31	94
26	South Dakota	31	94
27	Rhode Island	31	94
28	New Mexico	31	94
29	Iowa	30	91
30	Montana	30	91
31	Virginia	30	91
32	Delaware	30	91
33	Alabama	29	88
34	Wyoming	29	88
35	Louisiana	28	85
36	Ohio	28	85
37	Missouri	28	85
38	Pennsylvania	27	82
39	Vermont	27	82
40	Idaho	27	82
41	Florida	27	82
42	Tennessee	27	82
43	Nevada	26	79
44	New Hampshire	25	76
45	Kentucky	25	76
46	Maine	24	73
47	Georgia	24	73
48	Indiana	24	73
49	Arkansas	24	73
50	West Virginia	23	70
51	D.C.	23	70
	U.S. Average	33	100

Source: McCoy, Marilyn and Kent Halstead, Higher Education Financing in the Fifty States.

Table 7

a

Participation Rates of First-time Resident Enrollment in Public Institutions as a Percentage of High School Graduates 1978

Rank	State	%	Index
1	Arizona	133.9%	217
2	Oregon	112.0	181
3	Alaska	108.5	176
4	California	104.1	168
5	Wisconsin	83.2	135
6	Nevada	81.8%	132
7	North Carolina	81.7	132
8	Mississippi	80.4	130
9	Illinois	79.4	128
10	Maryland	75.3	122
11	Wyoming	74.9%	121
12	Nebraska	70.1	113
13	Texas	70.0	113
14	Hawaii	67.1	109
15	South Carolina	65.6	106
16	North Dakota	64.8%	105
17	Kansas	63.8	103
18	Michigan	62.9	102
19	Oklahoma	62.7	102
20	Utah	61.9	100
21	Alabama	61.6%	100
22	Tennessee	61.0	99
23	Colorado	59.7	97
24	Louisiana	59.0	95
25	Florida	58.0	94
26	D.C.	54.0%	87
27	Rhode Island	53.5	87
28	New Jersey	53.4	86
29	Iowa	53.3	86
30	Missouri	51.8	84
31	Delaware	50.6%	82
32	New York	50.2	81
33	Connecticut	50.1	81
34	Massachusetts	48.9	79
35	Arkansas	46.3	75
36	Ohio	45.7%	74
37	Kentucky	43.9	71
38	West Virginia	42.5	69
39	Indiana	42.2	68
40	Montana	41.3	67
41	Minnesota	41.2%	67
42	Idaho	39.6	64
43	Virginia	39.1	63
44	New Mexico	38.9	63
45	South Dakota	38.4	62
46	New Hampshire	37.6%	61
47	Pennsylvania	36.8	60
48	Georgia	34.0	55
49	Washington	32.3	52
50	Maine	30.6	50
51	Vermont	29.0	47
	U.S. Average	61.8%	100

b

Participation Rates of First-time Resident Enrollment in Public Institutions per 1000 Population 1978

Rank	State	Per 1000 Population	Index
1	Arizona	15.9	196
2	Oregon	14.3	176
3	Wisconsin	12.9	160
4	California	12.6	156
5	Alaska	12.1	149
6	Wyoming	10.8	133
7	North Dakota	10.8	133
8	North Carolina	10.5	130
9	Nebraska	10.4	128
10	Nevada	10.3	127
11	Maryland	10.1	125
12	Illinois	10.0	124
13	Utah	9.7	119
14	Michigan	9.3	115
15	Mississippi	9.3	115
16	Kansas	9.1	112
17	Texas	8.9	110
18	Hawaii	8.7	108
19	Oklahoma	8.6	106
20	South Carolina	8.6	106
21	Colorado	8.4	103
22	Iowa	8.1	100
23	Alabama	7.8	96
24	Louisiana	7.3	89
25	New Jersey	7.1	88
26	Delaware	7.1	87
27	Minnesota	7.1	87
28	Tennessee	7.0	86
29	Missouri	7.0	86
30	Montana	6.7	82
31	Ohio	6.7	82
32	Massachusetts	6.4	79
33	Connecticut	6.4	78
34	South Dakota	6.3	78
35	Rhode Island	6.2	76
36	Indiana	6.1	75
37	Florida	6.0	75
38	New York	6.0	74
39	Idaho	6.0	74
40	Arkansas	6.0	74
41	New Mexico	5.9	72
42	West Virginia	5.6	70
43	Kentucky	5.3	65
44	New Hampshire	5.1	63
45	Virginia	5.1	63
46	Pennsylvania	5.0	62
47	Washington	4.5	56
48	Maine	4.3	53
49	Georgia	4.2	52
50	D.C.	4.2	52
51	Vermont	4.0	50
	U.S. Average	8.1	100

Source: McCoy, Marilyn and Kent Halstead, Higher Education Financing in the Fifty States.

Table 8

Participation Rates of First-time Enrollments

Per 1000 Population 1978

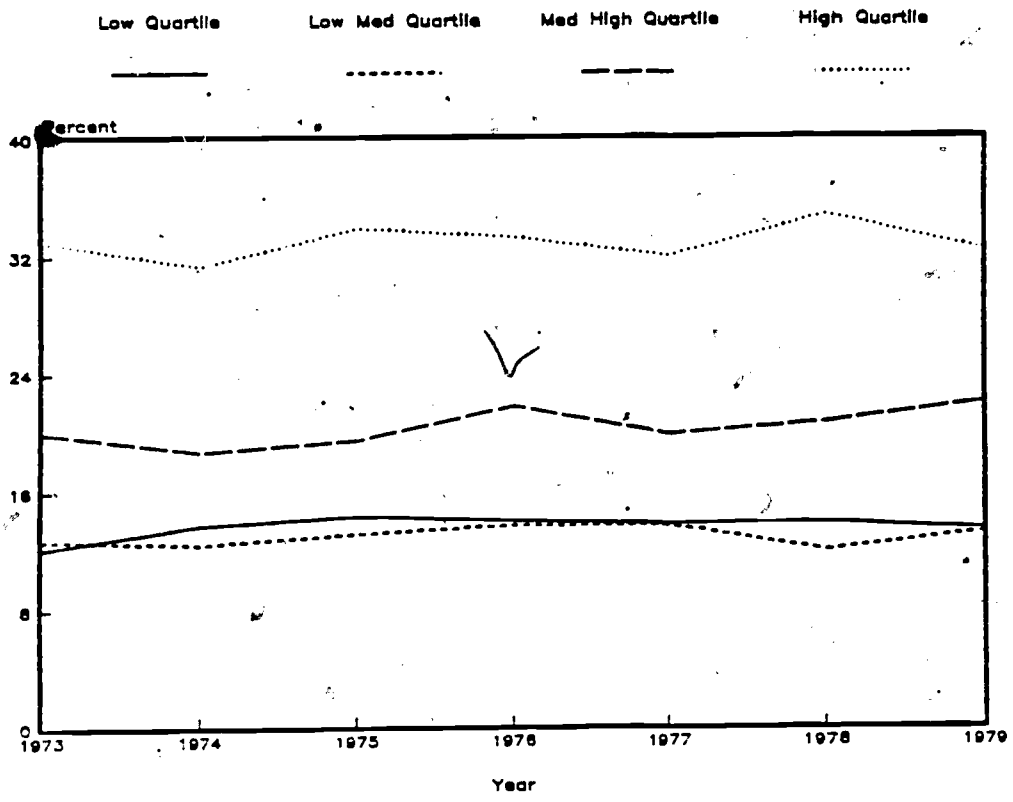
Rank	State	Per 1000 Population	Index
1	Arizona	20.1	228
2	Alaska	16.8	190
3	Oregon	15.5	176
4	Wisconsin	13.9	158
5	California	13.5	153
6	Wyoming	13.1	149
7	North Dakota	13.1	149
8	Nevada	11.6	132
9	North Carolina	11.4	130
10	Utah	11.4	129
11	Maryland	11.1	126
12	Nebraska	10.9	124
13	Kansas	10.6	120
14	Delaware	10.6	120
15	Illinois	10.2	116
16	Mississippi	10.2	116
17	Colorado	10.2	116
18	Michigan	9.8	111
19	Texas	9.7	110
20	South Carolina	9.6	109
21	Oklahoma	9.5	107
22	Alabama	9.2	104
23	Hawaii	9.2	104
24	Iowa	9.0	102
25	Louisiana	7.8	88
26	Minnesota	7.7	87
27	South Dakota	7.7	87
28	Missouri	7.6	87
29	Tennessee	7.6	86
30	Montana	7.6	86
31	West Virginia	7.4	84
32	Idaho	7.2	82
33	New Jersey	7.2	82
34	Vermont	7.2	82
35	New Hampshire	7.2	81
36	Rhode Island	7.1	81
37	Ohio	7.1	81
38	New Mexico	7.0	79
39	Florida	6.9	79
40	Indiana	6.9	78
41	Connecticut	6.8	77
42	Massachusetts	6.7	76
43	Arkansas	6.6	75
44	New York	6.2	70
45	Kentucky	6.1	69
46	Virginia	6.0	68
47	Pennsylvania	5.3	61
48	Washington	5.2	59
49	Maine	5.1	58
50	Georgia	4.8	54
51	D.C.	4.3	49
	U.S. Average	8.8	100

Source: McCoy, Marilyn and Kent Halstead, Higher Education Financing in the Fifty States.

Figure 1

College Participation Rates in the United States

by Income Quartile



Source: Tierney, Michael, "Trends in College Participation Rates"

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