DOCUMENT RESUME

ED 179 273 JC 800 017

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TITLE	The Decline of Transfer Education. Topical Paper Number 70.
INSTITUTION	California Univ., Los Angeles. ERIC Clearinghouse for Junior Coll. Information.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
PUB DATE	Dec 79
CONTRACT	400-78-0038
NOTE	37p.
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Adult Education; Bibliographies; *College Role; Community Colleges; *Educational Trends; Enrollment Influences; *Enrollment Trends; Full Time Students; Humanities; *Junior Colleges; Minority Groups; Part Time Students; State Surveys; Student Characteristics; Teacher Attitudes; *Transfer Programs; *Transfer Students; Urban Universities; Vocational Education
IDENTIFIERS	Information Analysis Products

ABSTRACT

As enrollment in transfer programs and the relative number of students who transfer to four-year institutions decrease, transfer education is losing its preeminence as the principal function of the community college. From 1907 to 1940, transfer education comprised 60-70% of enrollment and maintained its preeminence through the mid 1960's. By 1973, however, its share of total enrollment dropped to 43%. Although college and state board studies rarely explore the question of the ideal percentage of transfers, they do indicate that the growth rate for transfers has been lower than that for enrollment and that full-time students are more likely to enroll in transfer programs than part-timers. Therefore, states with a high proportion of part-time students, as well as low selective admission policies and large minority populations, will have a lower percentage of transfer students. Other forces detrimental to transfer education are: (1) the increasing demand for vocational education, (2) the growth of new curricular functions such as continuing education, (3) the need to provide remedial education, (4) the competition for students with four-year institutions, and (5) the aging of the student body. However, the reluctance of educators to break their ties with higher education and the increased demands for improved humanities curricula will assure transfer education a vital, though smaller, role at the community college. (JP)

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Topical Paper Number 70

December 1979

ERIC Clearinghouse for Junior Colleges
University of California
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The material in this Topical Paper was prepared pursuant to a contract with the National Institute of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Prior to publication, the manuscript was submitted to the UCLA Community College Leadership Program for critical review and determination of professional competence. This publication has met such standards. Points of view or opinions, however, do not necessarily represent the official view or opinions of either the UCLA Community College Leadership Program or the National Institute of Education.

This publication was prepared with funding from the National Institute of Education, U.S. Department of Health, Education, and Welfare under contract no. 400-78-0038. The opinions expressed in this report do not necessarily reflect the positions or policies of NIE or HEW.

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Introduction

One of the most significant changes in the community college is the decline of transfer education, studies designed to lead toward the baccalaureate degree. The decline is most pronounced in enrollment but there is considerable evidence that transfer education is also losing its preeminence as the principal function of the college. This development is the more remarkable since the community college was originally organized as an institution that some educators hoped would enable universities to give up their lower divisions. This, of course, did not happen except in a few instances. More common were junior colleges which became four-year colleges--another indication of their transfer education orientation. Today, there is little activity in either direction, although occasionally a community college (Staten Island recently, for example) is converted to four-year status and upper division colleges in Florida and Illinois have been organized.

Reaction against the transfer emphasis appeared shortly after public community colleges began to multiply during the second and third decades of the century. The reaction reached crescendo proportions after World War II as enrollments skyrocketed and as it became evident that large numbers of the new students required or wanted programs (vocational, adult and remedial) other than the transfer.

Despite exhortations by junior college educators, leaders of the national and state associations and many non-educators to add more vocational courses and programs, the ratio of transfer education to vocational education remained high almost to the end of the 1960s. Eells' comment in 1940 that "the students showed little interest in terminal [vocational] aspects of education" was repeated by many observers during the next 25 years (1941, p.58). Medsker in 1960 wrote that "the extent of the terminal program is limited more by student interest than by the willingness of colleges to offer it" (1960, p.53). He added that the "difficulty is the prestige values that pertain to 'regular' college work"

(1960, p.113). Six years later Thornton wrote that transfer "is still the function on which the junior colleges expend most effort and in which most of their students express interest" (1966, p. 234). After analyzing the occupational offerings in 511 public junior colleges in 1967, Smith reported that they "accord transfer education continued emphasis, and though the number of different occupational offerings has increased, the number of junior colleges offering occupational curriculum has not increased substantially" (Smith, [1969], p. 7).

However, the turn away from transfer education was in the making even while critics were lamenting the indifference of educators to the "real" needs of the students and pondering the failure of students to see that their future lay in other directions than transfer. As we shall point out, data from state reports show that enrollments in transfer education and transfers to senior institutions were not increasing as rapidly as total enrollments or as enrollments in vocational or community education.

It is difficult to pinpoint trends without meeting problems relating to definitions, enrollment variables and interpretations of the developments. The definitions of transfer used in this discussion are those that have been current until recent years. Emphasis is on public community colleges, although it is acknowledged that national and state data do not always separate community colleges from other postsecondary institutions. National data may include non-public colleges; state data are often exclusively of public colleges. In general, the discussion emphasizes relative and absolute change. It will cover definitions, enrollments, transfers to senior institutions, causes of the decline of transfer education, and prospects for the near future.

Definitions

Transfer education has two major aspects: 1) Courses and programs and 2) the movement of students.

In the first it is defined as the large body of credit courses in the liberal arts and sciences, general education, and humanities areas that are equivalent to the lower division courses in a baccalaureate institution. Until the recent multiplication of curricular functions, the transfer function was often referred to as the non-vocational or academic function.

This neat dichotomy no longer prevails, because the colleges have added new or have expanded old functions, such as continuing education, adult education, community services, community education, developmental education. Transfer courses may be included in the new functions but the students enrolled may have goals other than a degree or transfer to another institution.

Transfer education courses have always been essential for career education students not only to meet general education requirements for an associate degree but also to meet these and other liberal arts requirements for transfer to a senior institution. But the categories shift constantly and it is likely that, as formerly, courses that today are labelled non-transfer will become transfer as senior colleges introduce technical courses and programs in their curriculum. An excellent illustration of cooperation between an engineering school and community colleges is the Bachelor of Technology program at the City University of New York (Goodlet, 1979). Nor is the term, Transfer, itself distinct. Colleges and state agencies sometimes use one of the following terms more or less synonymously: Academic (Washington); Advanced and Professional (Florida); Baccalaureate-Oriented (Illinois); College Parallel (Iowa); Liberal Arts and Sciences (New York City); Lower Division Collegiate (Oregon).

In the second definition transfer education is the process whereby students progress from the community college to a four-year institution. The definition of a transfer student for statistical purposes varies from state to state. For example, New York classifies as a transfer anyone from a two-year institution whether he has no transferable credits or 60 (State University of New York, 1976). New Jersey's minimum is one (Miller, 1976). For statistical purpose California universities classify as transfers those who have earned a minimum of 12 acceptable transfer credits (California State Postsecondary Education Commission, 1978).

In recent years, the process has been expanded to include all transfers, those from one community college to another (intrasector transfers) and from a four-year institution to a community college (reverse transfers). Of the 27,745 transfers entering a New York two-year institution in the Fall of 1974 36.5 percent were intrasector and reverse transfers (State University

of New York, 1976). More than 19,000 enrollees in the Illinois colleges in the Fall of 1976 were intrasector and reverse transfers (Illinois Community College Board, 1976b). The Washington transfer data for 1978 breaks down as follows: 2,130 or 45 percent intrasector; 2,622 or 55 percent reverse. This compares with 3,852 regular transfers (Meier and Story, 1979). Knoell and Others discovered that reverse transfers in California were primarily part-time students who had enrolled in the community colleges for "one semester in order to satisfy some requirement or gain some skill which would help them in upper division and/or graduate work" (1976, p. 35). Although the intrasector and reverse transfers are extensive (see Lee's 1976 study for a succinct account) they will receive no more attention in this study which is concrened with the original meaning of transfer: from the community college to a four-year institution.

It should also be noted that although the original meaning of the transfer process excluded the vocational students, today, students of vocational and career programs are being accepted for transfer. In the gross statistics these are often indistinguishable from the liberal arts transfers, although studies are beginning to include them as a separate category. A few studies deal exclusively with career education transfers (Heller and Others, 1978). As a result of this development the distinction between academic and vocational is becoming blurred as more senior colleges accept for transfer vocational and career education graduates. The proportion of these transfers is still moderate but the growth is significant especially among community colleges with selective admission (Heller and Others, 1978). In California 36 percent of the associate degree transfers to the State University System had an occupationally-oriented major (California State Postsecondary Education Commission, 1979); in New York State in 1974 the comparable figure was 30 percent (State University of New York, 1976). In time, as Knoell and Medsker recommended, educators will "cease referring to programs as 'terminal' [vocational] and 'transfer';" and universities and four-year colleges will "recognize the student's right to be either terminal or transfer in either type of program" (1965, p. 44).

Statistics are sometimes skewed by the tremendous enrollment increase

of part-time, older students. Although the two are not necessarily the same, the part-time students are more likely to be older than the full-time students and less likely to have transfer as a goal. As a consequence colleges with a large proportion of adult students will have a lower proportion of transfer students and transfers than colleges with a small proportion of adult students. The same holds true for colleges with a large proportion of vocational-technical students. Other factors that may adversely affect the proportion of transfers are ethnicity, low socio-economic status as determined by family income, and the isolation of a college in a large rural area (California State Postsecondary Education Commission, 1978). A very important positive influence is a favorable attitude of four-year college administrators toward the transfer process. For instance, in Florida, community colleges have become a major source of students for the upper divisions of Florida universities because there has been a "sharing of responsibility for offerings which lead to the baccalaureate" which has been encouraged by the legislature and the college personnel of the various segments of the postsecondary institutions (Florida State Department of Education, 1977b). Florida has five upper division universities. Other states (California, Illinois, New York) have developed articulation committees of community college and university educators to facilitate the orderly transfer of students (Kintzer, 1976). However, community college educators still chafe at "articulation problems [that] still exist, particularly with business courses" (Illinois Community College Board, 1979a, p. 4).

Enrollment in Transfer Courses

The predominance of transfer enrollment was of long standing. Blocker and others point out that the early legislation establishing junior colleges "emphasized that the secondary schools should be permitted to extend their programs for an additional two years and/or provide college-transfer programs at their discretion" (1965, p. 27). Often, as in Texas, state funding was limited to courses which also appeared in the offerings of four-year colleges in the state (Blocker and Others, 1965). Though later legislation broadened this to include vocational education, the colleges remained essentially lower division institutions.

From 1907 to 1940, transfer education comprised 60 to 70 percent of the enrollment. In Eells' 1929 study of 10,000 students in 42 California junior colleges over 8000 indicated transfer goals. Ten years later (1938-39) two-thirds of the 41,000 students in 190 public junior colleges were enrolled in preparatory courses (Eells, 1941). Little change took place during the next 20 years. In the Fall of 1956, Medsker found that 64 percent of the 54,000 students in 70 two-year institutions in 15 states were enrolled in transfer programs. One state, Oregon, reported no transfer enrollment; it was matched by Wisconsin which reported no terminal enrollment. Except for New York's 6 percent transfer enrollment, the rest ranged from 53 percent for Pennsylvania to 96 percent for Iowa. California, which accounted for 52 percent of the total enrollment, had a transfer enrollment of 67 percent (Medsker, 1960).

The balance began to tip downward during the late 1960s. By 1973, less than 43 percent of the students were enrolled in transfer programs (Parker, 1974a). Brawer and Associates have documented the decline of humanities (especially transfer or nonvocational courses) subject by subject. Between the Spring of 1975 and Spring of 1977 they noted that enrollment in the humanities declined by 3 percent while total enrollment was rising by 7 percent. The range for the humanities was from 3 percent decline in cultural geography to 13 percent in literature. The exception--political science and interdisciplinary humanities rose by 4 and 6 percent respectively (Brawer, 1978).

An analysis of enrollment in nine states, Florida, Hawaii, Illinois, Iowa Massachusetts, Mississippi, Nevada, Oregon, Washington, shows that while transfer enrollment was higher in the middle 1970s than in the late 1960s in each of the states, the proportion of transfer enrollment to the total enrollment declined in all but Hawaii and Nevada. Only in Florida and Washington was the proportion of transfer students in the 1970s higher than 50 percent (Lombardi, 1978).

Illustrative of the shifting balance is the Illinois experience. In 1968, transfer students represented 56 percent of the total enrollments; in 1970, 44 percent; in 1974, 37 percent; in 1978, 32 percent. During this period transfer enrollment more than doubled from 50,000 to 103,000, but

the total enrollment of 322,000 in 1978 was more than 3 times the 1968 enrollment of 102,000 (Illinois Community College Board, 1976a, 1976b, 1979b). Transfer enrollment fell behind occupational enrollments in 1977 then regained its lead in 1978. It has been lower than the general studies/ undeclared categories since 1976.

The shift in enrollment balance in some states, Iowa and Florida for example, is in part accounted for by the transfer of jurisdiction over adult and vocational education to the community colleges. The change in Iowa, where vocational schools and colleges were combined into area schools, is most pronounced. In 1956, transfer enrollment comprised 96 percent of the total enrollment; in 1968, 46 percent; in 1975, 24 percent. In Florida a similar development on a smaller scale accounts for the decline of transfer enrollment from 73 percent in 1970 to 62 percent in 1976. This change of functions will continue as more public schools give up or are forced to relinquish their jurisdiction over adult education.

Degree awarded in the arts and sciences also reflect the decline in transfer education. In 1970 A.A. degrees awarded represented 54.3 percent of the total. By 1976 the proportion dropped to 42 percent (American Association of Community and Junior Colleges, 1979d).

At last, during the 1970s, the first-time, full-time freshmen started to act as Eells and his fellow critics thought they should; today only 42 percent of them plan to obtain a bachelor's degree (American Association of Community and Junior Colleges, 1979b). Moreover "there appears to be more indecision about going to college than there was five years ago." In 1974 68 percent of high school students in Ocean County, New Jersey had aspirations of going to college, in 1979 the percentage dropped to 59 percent (Parrish, 1979, p. 3). In the First Report of a California longitudinal study of enrollment patterns Gold concluded: "The image of the community college student being an 18 year old just out of high school planning to stay four semesters and then transfer to a four year university is correct only for a small percentage of students" (1979, p. 13).

TRANSFERS TO FOUR-YEAR COLLEGES AND UNIVERSITIES

To evaluate the extent to which the community colleges fulfill their oldest function, preparation for baccalaureate education, numerous follow-up studies are undertaken by colleges, state authorities, and independent researchers. The absorption in these endeavors attest to the high priority educators place on the transfer function and to the concern of critics that the effort expended on transfer education is not warranted by the results. Most educators agree with Cosand that the colleges, were, are and will be evaluated to a major degree upon the success of their transfer students to the four-year colleges and universities" (1979, p 6). The critics point to the studies to support Eells' thesis that "the junior college is terminal, as far as full-time formal education is concerned, for three-quarters of its students who enter as freshmen" (1941, p. 61).

Although there have been many studies on transfers to the senior institutions, there has been little discussion on what is an optimum or acceptable percentage or number of transfers. Both the college administrators and the critics are silent on this issue, except for such statements that the percentage is low and that the "impact of the transfer process must be assessed...in light of both actual numbers of transfer students and their growth rates" (Miller, 1976, p. 5). Educators take the position, openly or implied, that in an Open Door college the number will be small; were it otherwise, the commitment to the Open Door might be less than wholehearted. On the whole they are satisfied "that the...public community colleges [are] performing the transfer function rather well because of the good performance of their transfer students" (Moughamian and Others, 1978, p. 31).

Educators are gratified when a large percentage of students transfer; but they are more likely to stress the accomplishments of those who transfer as measured by high grade point averages (GPA), and more so if these averages are equal to or higher than those of the native students. Also, gratifying to the educators are a high percentage of transferees who earn a "B" or better GPA and a high percentage who graduate (Marcinko, 1978; Rinehart, 1977). Notwithstanding, the large number of studies and the

elaborate analyses that accompany them belie a deep-seated concern about the low number and proportion of transfers and the still lower proportion of minorities and disadvantaged among them.

Follow-up transfer studies are far from uniform. They may concentrate on first-time transfers, transfers attending senior institutions at a given term, transfers who completed a minimum number of units or terms, transfers to the state public institutions. For comparative purpose they use headcount enrollment, full-time equivalent enrollment, graduates, four-year undergraduate enrollment. Longitudinal studies are made to show the trend in the number or proportion of transfers. Often, a particular class is studied for a period of three or more years. Occasionally, a study may seek to determine the number and proportion of transfers over a long period, sometimes as long as 25 years.

The statistics from the different studies are not comparable because of differences in data-gathering and classifications. For the same reasons, sometimes even data from the same state may not be exactly comparable. The differences in the various studies are easily spotted in the descriptions. In many of the studies the sample represents a fraction of the total transfers. (See Cohen, 1979, for an analysis of the vagaries in reporting transfer data.)

Unless otherwise stated the statistics used in this paper are Fall Headcount for enrollment and Fall entry for transfers. Likewise, the ratios used are the number of transfers divided by the number enrollees for the Fall of the same year. A more accurate ratio might be obtained if an earlier year's enrollment figure were used, since the transfers are from an earlier year. However, this would introduce other problems because the transfers are not all from the same year. Such a change affects the percentages but does not affect the trends significantly as is shown in the Florida situation (Nickens and Others, 1975; Florida State Department of Education, 1977a)

As we indicated earlier, the emphasis in this section will be on community college transfers to four-year colleges and universities. Until the 1960s, the transfers were students who had majored in the liberal arts and sciences. Today, they include a sizeable proportion of occupa-

tional majors, many with Associate in Applied Science (A.A.S.) or Business (A.A.B.) degrees. They are not easily identifiable in most of the studies. In the state studies that include only transfers to the public university the number and proportion of transfers are understated. However, since the great majority (80 percent or more) of students transfer to state universities, the effect on the data does not affect the general thesis of this analysis.

The extent to which the measuring unit influences the proportion obtained is brought out in Knoell's analysis of California transfers. She estimated the overall rate of transfer to the University of California and the State University for her 1972 sample of 35,000 students after five years was less than 15 percent of the total enrollment. For students who prior to transfer had enrolled for one term or irregularly, the percentage dropped to 5; but climbed to more than 20 for students who had enrolled for at least two consecutive terms; and spurted to 52 for those who had received an A.A. degree (California State Postsecondary Education Commission, 1979).

National Studies

In a national study in 1937-38, Eells (1941) reported that the average percentage of transfers from public community colleges was 18 with a range by region of 17 to 26, the lowest from California and the highest from the Middle States. In a large scale study of 17,627 freshmen entering in Fall 1952 in 63 colleges, Medsker (1960) found that by June 1956, a median of 33 percent had transferred with a range among the 63 colleges of 10 and 67. The percentage of graduates who transferred was 56 with a range of 10 and 87. According to a more recent national study of the students enrolled in 1972, about one-fourth had transferred within two years (American Association of Community and Junior Colleges, 1979a).

College and State Transfer Studies

The large number of college and state studies provide insights on a variety of aspects of this absorbing phenomenon. Of the 19,000 students enrolled in Kansas City Junior College between 1915 and 1950, 3000 or 16 percent enrolled in a senior institution (Eells, 1941). In a similar longitudinal study at Everett Junior College (Washington), covering the 1948 to 1958 period 47 percent had transferred compared with 80 percent who chose transfer

as their goal (Blocker and Others, 1965). Two earlier California studies in 1929 and 1938 had percentages of 21 and 19 respectively (Eells, 1941), percentages considerably higher than those since 1965. According to a study of transfers to the University of California and the California State University and Colleges the percentage of transfers in Fall 1965 was 3.6, increased to 5 percent in 1972, and then declined to 3.7 in 1977. The number of transfers increased from 17,551 in 1965 to 40,393 in 1977 for a 130 percent increase. Enrollment during the same period increased by 341 percent (California State Postsecondary Education Commission, 1978). Higher yearly percentages of about 5 percent are obtained when full year transfers to the State University and Colleges are used instead of Fall term transfers. For 1969, the first year for which full year numbers are given, and 1976, the last year, the numbers of transfers change to 48,421 and 58,353 from 32,665 and 39,776 respectively. The percentage of transfers to total enrollment for 1976 rises from 3.6 to 5.3 (California State Postsecondary Education Commission, 1978). See Table 1 for selected data on transfers in California, Florida and Washington.

A 1969 Florida study of first-time freshmen enrolled in the Fall of 1966 reported that 31 percent had transferred to a four-year college. Of the graduates, 75 percent had transferred; of the non-graduates only 13 percent had done so. Of those with degrees, 82 percent had transfer degrees; 13 percent had technical-vocational degrees; the rest other degrees (Florida Community Junior College Inter-institutional Research Council, 1969).

Later Florida studies stress the number of community college students attending a Florida public university each fall. Thus, the number of transfers attending in 1973, 1974, 1975 and 1976 are 26,742, 26,890, 31,780 and 32,577 respectively. Of these, 13,334 entered in the Fall of 1973, 14,040 in the Fall of 1974, 15,585 in the Fall of 1975, and 14,642 in the Fall of 1976 (Nickens and Others, 1975; Florida State Department of Education, 1977a). The ratios of all transfers attending a state university to total enrollment are 20, 18, 19, 19 for the respective years. The ratios of those entering in the Fall of each year are 9.9, 9.4, 9.2 and 8.5 respectively. The total enrollment in Florida from 1974 to 1976 increased by 29 percent

Table 1

Selected Data on Transfers from California, Florida and Washington Community Colleges to Universities and Four-Year Colleges and Enrollment

Fall	California					Florida					Washington				
	Number of Transfers	% Inc.	Head-count Enroll-ment	% Inc.	Ratio 2 to 4	Number of Transfers	% Inc.	Head-count Enroll-ment	% Inc.	Ratio 7 to 9	Number of Transfers	% Inc.	Head-count Enroll-ment	% Inc.	Ratio 12 to 16
1973	41,282		856,400		4.8	13,344		134,223		9.9	4,568		137,663		3.3
1974	40,459	-2	977,235	16	4.1	14,040	5	148,804	11	9.4	4,764	4	146,784	7	3.2
1975	43,539	8	1,119,300	15	4.1	15,585	11	169,788	14	9.2	4,584	-4	159,386	9	2.9
1976	39,776	-9	1,092,800	-2	3.6	14,642	-6	172,748	2	8.5	4,545	-1	154,564	-3	2.9
1977	40,393	2	1,114,000	2	3.6						4,236	-7	171,068	11	2.5
1978											3,852	-9	180,922	6	2.1
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	1973-1977	-2		30		1973-1976	10		29		1973-1978	-16		31	

Source: California State Postsecondary Education Commission 1978, p. 11; AACJC yearly directories.

Source: Florida State Department of Education, 1977a, p. 11; Nickens and Others, 1975, p. 9.

Source: Meier and Story, 1979, pp. 16, 58.

Note: For California and Florida, transfer data are for transfers to the public state universities and four-year colleges; for Washington, transfers to all universities and four-year colleges. Enrollment is the opening Headcount for the Fall of each year.

(14 percent of it in 1975), the transfers increased by 10 percent.

The 1973 class of 10,504 Illinois transfers was 73 percent larger than the 1967 class of 6,059 transfers (Moughamian and Others, 1978). Total enrollment of 223,000 in 1973 was 167 percent larger than the 83,300 of 1967. The 10,504 transfers in 1973 represented 4.7 percent of the 1973 enrollment; down from the 7.3 percent of the 1967 ratio. The yearly average increase of transfers from 1967 to 1973 was a shade higher than 12 percent; of enrollment the yearly average increase was 28 percent (Illinois Community College Board, 1977).

Between the Fall of 1969 and the Fall of 1975 transfers from the New York two-year colleges to State University of New York (SUNY) senior institutions rose from 6700 to 10,000 (Annas and Dean, 1976). The ratio of transfers to enrollment in 1975 is 4 percent.

Transfers in Washington remained relatively stable at about 4,500 each year from 1973 to 1976, turned down by 300 in 1977 and by another 380 in 1978. Except for 1976, enrollment increased from one year to the next. As a result of these different growth rates the ratio of transfers to enrollment dropped from 3.3 in 1973 to 2.1 in 1978 (Table 1).

A large proportion of graduates and students earning close to 60 semester or 90 quarter units transfer. As we noted above, Knoell's estimate was 52 percent. In Florida they represented 72 percent of the 1974 total and 76 percent of the 1976 total (Florida State Department of Education, 1977a). In Hawaii the percentage for the 1977-78 graduates was 57 percent (University of Hawaii, 1979); in Pennsylvania, 47.5 percent for 1975-76 (Wetzel, 1977).

Significant because it involved graduates with occupational majors is a New York City study. Of the 4,376 graduates in 1973 with an Associate in Applied Science degree, 59 percent started or completed a baccalaureate course of study (Heller and Others, 1978).

Another factor which seems to influence the probability of transfer is high school major. Of 523 students who transferred from 3 two-year colleges 400 or 75 percent had high school academic majors (Blocker and Others, 1965).

Summary

Because of the absence of a criterion or standard, the studies from the

colleges and state boards rarely discuss the question of the ideal percentage of transfers. The studies indicate that there is wide variation in the percentage of the students who transfer and that the growth rate of transfers has been lower than that for enrollment.

Nearly all studies of transfers to the senior institution point out that full-timers and persisters (those who enroll for two or more consecutive semesters) are more likely to enroll in transfer programs than part-timers and nonpersisters (Florida State Department of Education, 1977a; California State Postsecondary Education Commission, 1979; Anderson, 1977; Hauselman and Tudor, 1977; Wetzel, 1977).

Based on state and national studies, the percentage of students transferring to a senior institution ranges between 2 and 30. The percentage of community college graduates who transfer lies somewhere between 45 percent and 75 percent.

If the part-time student enrollment continues to increase at a higher rate than the full-time student enrollment, the percentage of transfers to senior institutions will approach the California and Washington average of 3 to 5 percent of the total enrollment. An important counteracting influence on the percentage will be the increasing number of transfers with occupational majors.

The low percentage of transfers will be in states that have given jurisdiction of adult and vocational education to the community colleges; have a very high proportion of part-time and older students; have a low selective admission policy; and have a high minority population. The high percentages will come from states and colleges that have students from high income families, that maintain some matriculation requirements, and that are close to public senior institutions.

Although transfer is more fluid today than it has ever been problems relating to the acceptance of community college courses for transfer purposes and for meeting baccalaureate degree requirements continue. States such as California, Florida, Hawaii, Illinois, New York and others with well-defined articulation programs facilitate the transfer process among the state-supported institutions. Typical is the situation in New York where

"Students transferring from State University institutions seem to show smoother articulation than students from institutions outside the State University system" (State University of New York, 1976, p.xii). The New Jersey formula that allocates funds for space in proportion to transfer students who earn an A.A. the previous year is another incentive for increasing the number of transfers (Miller, 1976).

FORCES AT WORK

How much of the relative and absolute enrollment decline of transfer education is the result of positive efforts of the educators and how much of the external forces is not easy to determine. It is undeniable that much effort in this direction came from educators who from conviction based on the changing character of the students or from the desire to maintain enrollment or from other motives added the new functions that had the effect of reducing the importance of transfer education in the total curriculum area. But it is also reasonable to assert that the decline of transfer education is a natural development for an institution which maintains an Open Door policy and which takes pride in its flexibility and ability to meet the needs of its students. As one educator told members of the Board of Trustees: "The college has followed the tide of population change. The forces at work are not our forces...we are here to serve and we are serving." A dramatic illustration of what happens when an Open Door policy is implemented is the decline of transfer education in the New York City College during the first half of the 1970s.

The opposite effect has been noticeable since matriculation standards have been reestablished. The change seems to have occurred in California without the awareness of the college personnel. Cohen, Brawer and Associates attribute the decline in the humanities (an important segment of transfer education) to "increased enrollments in career and vocational programs, elimination of many requirements for transfer students, the attraction of newer disciplines in the social sciences and in other fields, and a widespread concentration on the community at large and their practical and/or recreational demands" (Brawer, 1978 p. 1).

Of the many causes (some of which have already been mentioned) that contributed to the decline of transfer education, major attention will be given to the following:

1. the introduction and the promotion of vocational education;
2. the addition of community education functions;
3. the growth of remedial education;

4. competition from four-year colleges;

5. the tremendous increase of part-time day students; and

6. the aging of the population.

These are not mutually exclusive nor are they discrete. The order bears some relation to the sequence of the happening.

Vocational Education

In light of its origins, the strong hold of transfer education as measured by courses and enrollment and the desire of some educators for senior status, it may sound implausible to assert that almost as soon as public junior colleges appeared in the early 1900s, agitation began for the addition of vocational education to the curriculum and that by 1940, the national leaders were declaring that occupational education "is...the most significant aspect of the rapidly spreading junior college movement" (Eells, 1941, p.vi). Ever since, a succession of educators, legislators, community leaders, and national commissions and foundations have urged community college educators to introduce more occupational courses and programs and to downplay transfer education. Congress and state legislatures encourage the development of vocational education through generous appropriations and by state policies setting goals and/or requirements that a specified percentage of the courses and curriculums be devoted to vocational education. Because of state and national partiality to vocational education, community college educators have gone to great pains not only to increase enrollments in vocational education, but to document their efforts. For example, in a Fact Sheet on enrollment the California Community and Junior College Association included a special section on vocational education informing its readers that "about 40 percent of total student instruction hours...are in occupational programs, [and that] approximately two-thirds of students...are enrolled in one or more voc-ed qualifying classes" (California Community and Junior College Association, 1979a, p. 2).

It took more than 50 years before this campaign succeeded. In the 1970s, transfer enrollment dropped below occupational enrollment. Not to be overlooked in this shift is the high unemployment among the college graduates during the early years of the 1970s. As the articles and books on the "Overeducated American" multiplied, vocational education courses and

programs became more acceptable to the regular community college students and in some degree to unemployed college graduates who sought a skill for temporary employment (Freeman, 1976; Hurn, 1979).

Community Education

Since the middle 50's, a new group of curriculum functions--community services, continuing education, adult education and adult basic education--has contributed to the relative decline of transfer education. This group, often called community education, is growing at a faster rate than either vocational or transfer education. Unlike vocational education courses and programs, which are nearly always classified as college-level, the new group contains courses, programs and activities which are admittedly below college-level, are offered in the day or evening, on-campus and off-campus, in rented or borrowed facilities. Most of the students or participants served are not interested in degrees, some are not even interested in credits. A large number have degrees, are employed or are senior citizens. The great majority are older than the traditional 18 to 24 college-age group. This group of functions is being promoted vigorously by advocates who are even more committed to the subordination of the transfer function than the vocational education proponents.

Nearly all states authorize community colleges to offer courses and programs in these subjects; although in most states the jurisdiction is shared with the public schools. In time, community college educators expect to have major responsibility. They maintain "that community colleges, through their locally elected [and appointed] governing boards, are best suited to fulfill the educational needs of students over age 18 because of their community orientation and ability to respond to the diverse educational and vocational needs of the adult community" (California Community and Junior College Association, 1979b, p. 5). A few also are frank to admit that they need "the over 3 million Illinois adult residents who do not possess at least a high school diploma" in order to offset the declining enrollments and the consequent lower state aid (Illinois Community College Board, 1979a, p. 5) Community college educators are aware that "adult [learners are] now the fastest-growing segment in higher education" (Ryan, 1979, p. 1).

Aside from the logic that the education of persons over 18 years of age should be the responsibility of the postsecondary institutions regardless of the time of day they attend, there are also the practical considerations that the colleges often have a larger tax base than the high schools and most charge tuition and fees.

Enrollment data confirm the trend toward the two-year colleges. In all public two-year colleges and technical schools participants in adult education increased from 1.55 million in 1969 to 3.02 in 1975, a gain of 95 percent. Participants in the public elementary and secondary schools declined by 4.5 percent, from 1.97 million to 1.881 million (Grant and Lind, 1978). The total community college enrollment increased by 91 percent (American Association of Community and Junior Colleges, 1979e).

It is highly probable that during the next five years community colleges will be given principal responsibility for adult basic education and general adult education. This is already so in Iowa and Nebraska and, in part, in Florida, Illinois and California.

Remedial Education

The increase of high school graduates with inadequate preparation for college-level work poses a serious threat to transfer education. Where the proportion of low aptitude students is unusually high, the offerings in transfer education courses decline and those in remedial education increase. Whereas in a normal college the proportion of enrollment in transfer courses (e.g., English or mathematics) is 70 percent, in a college with a large remedial student body the proportion may be only 30 or 40 percent, (Carnevale, 1978). As a result advanced courses in most transfer subjects cannot be offered every semester; at best they can be offered only once every second or third semester. In such colleges the flight of high aptitude students resembles the flight of white students from inner city schools. This is especially pronounced in multi-campus districts where high aptitude students gravitate toward the suburban campus. Throughout the country there are a number of colleges in multi-campus districts and some in single campus districts which offer only a semblance of transfer education. Such an environment not only discourages high aptitude students, it also creates a morale problem among faculty who, academically unprepared and often un-

sympathetic, find teaching remedial students overwhelmingly discouraging.

Paradoxically, adult basic education which consists of less than college-grade courses does not affect the status of transfer education as does remedial education because the courses are for students who have not graduated from high school. These students are usually adults attending during the evening on a part-time basis and enrolled in elementary or high school subjects. Their instructors, who are usually prepared for the task, do not expect college performance. On the other hand remedial students are often high school graduates attending during the day who want college subjects for transfer purpose. Their instructors are the same as those who teach college transfer courses. The important difference between the two is that adult basic education does not impinge on transfer education while remedial education is directly related to transfer education since the courses are often a prerequisite for transfer courses and most of the students aspire to transfer status.

Competition for Students

Another development that contributes directly to the decline of transfer education is the frantic search for students by four-year colleges and universities through proliferation of marginal off-campus and out-of-state degree programs, awarding of academic credit for insufficient and inadequate work, and grade inflation (Carnegie Council on Policy Studies in Higher Education, 1979). This situation may make a shambles of those master plans for higher education that have as their link-pin the diversion of lower division students to the community colleges. If the competition persists, the percentage of the full-time college-bound high school graduates enrolling in community colleges will decrease.

Part-Time Students

Overriding all of these reasons is the growth of the part-time student phenomenon. This includes the full-time intermittent or drop-in students as well as those who attend on a part-time basis. During the late 50's and early 60's educators expounded on the virtue of young people interrupting their formal education in order to travel, work or engage in some political or civic activity. At the same time, the colleges attracted or recruited large numbers of women, retired people, young people who had to work while

going to college and others with degrees who took special courses for personal improvement. Today, 50 percent of the day students attend part-time. When these are added to the very large numbers of evening division students, preponderantly part-timers, the proportion rises to two-thirds or more of the enrollees. Many part-time students enroll in transfer courses but not for transfer purposes. Knoell and Others noted that "continuing education for part-time, adult students has become the dominant function of the Community Colleges" and that these students "come with their own objectives relating to educational, career, and personal growth which often are achieved outside degree and certificate programs" (1976, p. 1).

Age of Community College Students

Related to the part-time pattern is the aging of the community college student body. In 1970, the under-20 group represented 52 percent of total enrollment. By 1977, the percentage dropped to 37. The 22-34 age group percentages for the same years were 31 and 45 respectively. Of the California transfers 'Seventy-three percent and sixty percent of the University and State University transfer students, respectively, were under the age of 20 when they entered the Community College." Only 47 percent of the entire community college enrollment was under 20 years of age (California State Postsecondary Education Commission, 1979, p. 7). The mean age of Florida transfers attending the state university institutions was between 24 and 25 during the 1974-1976 period (Florida State Department of Education, 1977a).

CURRENT STATUS

It may seem contradictory to maintain that transfer education still retains a great deal of appeal while pointing out that enrollment in transfer education is declining absolutely and relatively to vocational and community education. Nevertheless, such is the situation. This is evident in the efforts made in vocational education to transform as many courses and programs as possible into transfer courses and programs and in community education where the efforts are directed toward converting courses into college credit courses. The allure of the baccalaureate is ever present, despite the small numbers achieving it. For some colleges the allure is financial since transfer courses are funded at a higher rate than non-credit courses.

This ambivalence or love-hate relationship toward transfer education is particularly noticeable in the actions of educators, who support and encourage the growth of transfer education because it is their principal connection with higher education. They go to great lengths to strengthen this relationship by fashioning transfer courses to conform to the lower division format, sometimes adopting the senior college course titles, numbers, units, and content. They take inordinate pride in the success of their transfers at the senior institutions. For many it is the most important criterion in the evaluation of the community college's effectiveness. At the same time they vigorously promote occupational education and community education functions. Sometimes, they even look on transfer education as a drag on the development of a broader mission for the college. They bemoan the effort expended on transfer education since it is out of proportion to the small number of students who transfer.

Indicative of the long standing ambivalent attitude of educators toward transfer education were two reactions to the California Master Plan for Higher Education which made the community college a copartner with the State Colleges and the University. While pleased with this recognition, Tyler, executive secretary of the California Junior College Association, nevertheless expressed concern that the faculty, the principal supporters of transfer education, would distort its meaning to "imply that they should

give up all [programs] except the transfer program." Black, president of Los Angeles Harbor College, warned his faculty not to assume that because "now we are higher education,...we must get rid of programs that are not typically college level." Yet both of these educators had been strong supporters of the move to include junior colleges as members of the Coordinating Council for Higher Education. They and their colleagues sought higher education status but at the same time they favored occupational education "not an inferior type of college education...just a different kind of education...designed for the competencies of the majority of high school graduates," a statement that came close to saying that they are not competent to enroll in transfer education (Lombardi, 1964, p. 143).

Ambivalency is also noticeable in state and college policies that set goals of a fifteen to fifty percent enrollment in occupational programs and establish minimum general education requirements for the associate degree in applied arts (Illinois Community College Board, 1979a). More indicative of this ambivalency are the efforts to elevate occupational programs to transfer status and to convert nontraditional, noncredit courses to transfer credit status.

In contrast there is no ambivalency among leaders of national and state associations. Eells, Tyler and Black mentioned above are only three of many examples. More recently, Gleazer, president of the American Association of Community and Junior Colleges, has been in the forefront of this effort to downplay the transfer function. In addition to their own speeches and writings, association leaders invite prominent laypersons and public officials to their conventions to propound the virtues of vocational and community education. At national and state conferences rarely is a major speaker invited to make a plea for transfer education. Also indicative of this attitude toward transfer education is the plethora of committees and commissions on vocational education, adult education, continuing education, community services and their absence on transfer education. In a listing of 15 "Programs in Progress at AACJC" --energy, community resource centers, college-labor union cooperation, community education, lifelong education, career education, older Americans, veterans affairs, adult learning,

women business owners, international services--not one related specifically to the transfer function (American Association of Community and Junior Colleges, 1979c).

Degrees awarded is another measure of the transformation taking place. Between 1971 and 1976 occupational degrees have more than doubled from 107,700 to 216,269. During the same period all other degrees (arts, sciences, general programs) have increased by 21 percent from 144,883 to 175,135. The percentages of occupational degrees awarded represented more than half the total number of degrees in 1974 (52%), 1975 (54%), 1976 (55%) (Grant and Lind, 1978) and 1977 (58%) (American Association of Community and Junior Colleges, 1979a).

Based solely on statistics, a case could be made for changing the institutional character of the community college. The proportion of students enrolled in transfer courses is approximately one-third of the total enrollment and the proportion of students who transfer is less than 10 percent of the total enrollment. It is very likely that the proportion will approach 5 percent, if the present trends of lower enrollments of the 18-24 year olds and higher enrollments of part-time students continue.

Despite the statistics and the addition of programs and courses that are below college-level or remedial in nature, community college educators cling tenaciously to their higher education association. Gleazer's suggestion, that the community college become "a new kind of college--standing between the high school and the university--offering broad programs of experiences of value in and of themselves, neither post high school as such or precollege such" (1964, p. 49) has few supporters. Even fewer embrace Pifer's recommendation that the colleges "consider themselves primarily as community service agencies rather than institutions of higher education" (Talbott, 1976, p. 84).

If we think of the courses that comprise transfer education, the situation appears more hopeful or less discouraging. The liberal arts, the humanities, the general education offerings are still popular for large numbers including those who do not need or want credit or degrees as well as those who do.

The hold of transfer education is being clearly demonstrated in today's climate of financial retrenchment. Wherever a financial crisis has occurred--New York City, Miami-Dade, California, for example--transfer education has fared as well as or better than the other curriculum functions, directly in financial support and indirectly through the reestablishment of admission, retention, probation and dismissal standards.

The revival of interest in the humanities, general education and basic education contributes to the well-being of transfer education. The humanities and general education are the core of the transfer education programs while the stress on basic education gives support to those who deplore the proliferation of "fun and games" courses. Faculty and university educators are the principal supporters of this movement toward traditional education.

Up until this turnaround in the enrollments, educators, laypersons, and legislators deplored the undue emphasis on transfer education. Today, a reaction is developing. Concern is being expressed at the neglect of the courses that comprise transfer education and the undue emphasis on narrow vocationalism. For example, Parker, editor of the ACT enrollment publications, expressed alarm that:

> "The oscillating pendulum of educational public opinion,... has swung, or may swing, too far from the academic base of the liberal arts. Indeed, the caution flags should be out against an educational course that leads to a continual restriction of the liberal arts and general education courses so that career education programs, while apparently being broadened in their vocational scope, are in effect being narrowed into overly specialized career education channels" (1974b, p. 463).

After documenting the vigorous upward motion of technical education, he warned. "Career education is commendable but not at the expense or to the exclusion of the broader and more general education that primarily is the result of an adequate exposure to the arts and sciences." He insisted that a "wider perspective and deeper understanding deriving from the association with the liberal arts and the so-called 'academic' disciplines provide an invaluable background that is highly facilitative of successful management" (Parker, 1975, p. 5).

One of the few national efforts to promote the academic courses

and disciplines is the large scale study of humanities in the community colleges conducted by Cohen, Brawer and Associates of the Center for the Study of Community Colleges. Besides gathering statistics on the students, faculty and curriculum offerings they hold conferences, seminars and in-service sessions to help revive interest in the humanities. Their publications are the definitive handbooks on the status of the humanities as a group and on the individual disciplines.

Knoell saw "a number of indications that Community College transfer students will be the focus of much more attention in the early 1980s than in the 1970s, [because] governing boards, the Legislature, and faculty groups [are] all concerned with the quality of the preparation of first-time freshmen in the University and the State University. The 1978-79 California State Budget Act contained language requesting the University, State University and Community Colleges to prepare a joint report on efforts to increase the rate and retention of certain groups of transfer students, including a proposal to identify potential transfers from underrepresented groups" (California State Postsecondary Education Commission, 1979, p.38).

A good deal of support for transfer education comes from students and leaders of minority groups who object to the concentration on non-academic programs--remedial and vocational--in colleges with large minority enrollments. In the Cuyahoga Community College District (Cleveland, Ohio) the National Association for the Advancement of Colored People (NAACP) reported the complaints of students that "'meat courses' had been removed from the downtown campus...[and] 'go nowhere' courses" are left for them (Middleton, 1978, p. 9). The Cuyahoga incident may be the beginning of a new wave of protests against "inferior" non-transfer education reminiscent of the Black and Chicano Student Demands of the 1960s. These protests and "affirmative actions efforts...[are] likely to increase the transfer rates...from racial/ethnic minority groups" (California State Postsecondary Education Commission, 1979, p. 38). The recent policy that makes transfer students eligible for federally-funded aid, while applicable to all transfers, will be especially helpful to low-income students.

FUTURE

Will the transfer function disappear? Hardly. The colleges will continue to offer liberal arts, sciences, general education courses and they will create transfer programs--including some in vocational education--but the enrollees in the courses will include more than formerly of those who do not want, are not capable of, or cannot sustain the regimen of a two- or three-year sequence. The decline of transfer enrollment and transfers to senior institutions will continue for the next five years.

Community colleges will have serious competition from the senior institutions for baccalaureate-oriented students. They have some advantage in lower tuition and fees, in lower entrance requirements, and in proximity to potential students. However, if the difference in tuition keeps narrowing as in New York State, the financial advantage will be lost. The lower entrance requirement will help to some extent, but the difference here will be slight, except in the case of applicants with very low aptitude in reading, writing and arithmetic skills. Most senior institutions will draw the line here. Proximity is still an important asset to the community colleges and may become even more so if the energy crisis is not resolved. On the other hand, if the percentage of college-going students (18-24 year range) keeps going down, the efforts of four-year colleges to enroll a larger proportion will be redoubled.

Yet discouraging though the situation for transfer education appears, it is far from moribund. An examination of student credit hours generated shows that transfer courses (liberal arts, sciences, humanities, general education) far surpass those generated by vocational courses--in Florida and Illinois, for example, by a margin of almost 2 to 1.

Community college educators have an opportunity to capitalize on the new interest in strengthening transfer education. Perhaps leaders in the movement should consider mounting a study similar to that on terminal education led in 1940 by the American Junior College Association. Under Eells' leadership and supported by most presidents this commission called attention to the importance of vocational education and laid the foundation for its acceptance as an equal to transfer education. In such a study

community college educators should be able to demonstrate the importance to American youth of transfer education as the beginning of the process in career education. They could make a case that for the underprivileged transfer education is an essential if they are ever to achieve the goal of participating in the mainstream. At the same time they must examine the serious assertion that enrollment in a community college reduces the student's chances of obtaining a bachelor's degree. Is this assertion related to the charge that many colleges offer miniscule third and fourth semester offerings? What evidence is there that community colleges have become two-semester rather than two-year colleges?

While making this plea for bolstering the transfer function, there is no intention of besmirching vocational or community education. The community college is strong enough to perform all three functions. What is suggested is that transfer not be neglected because it involves a greater effort or because it is more difficult for the students. Sometimes one wonders if community college educators are being enticed toward other areas because they want to parade numbers, or because they fear failure in the transfer function, or because in community education areas accountability is not a problem.

Cosand, long-time community college administrator and former assistant Commissioner of Education, while accepting the fact that the primary emphasis of transfer education will continue to diminish during the 1980s, insists that "the maintenance of a high quality strong academic program is essential for the image and status of the community college." Without transfer opportunities and without the liberal arts courses for students in the technical curriculums and for "those enrolling only for the pleasure of learning ..would indeed be barren and...could [hardly] be called a college or an effective and integral part of higher education" (Cosand, 1979, p. 6).

While we are convinced that transfer education will not in the near future (as far ahead as 2000) regain the preeminent position it once held, nevertheless we believe that there is still logic and justice to the ideal of universal higher education through the sophomore year--and that the

community college which is the entry point to higher education for the great majority of students continues to have an important role in the fulfillment of this ideal.

BIBLIOGRAPHY

American Association of Community and Junior Colleges. "Follow-up and Transfer of Two-Year College Students." Washington, D.C., 1979a.

American Association of Community and Junior Colleges. "Learners in Two-Year Colleges." Washington, D.C., 1979b.

American Association of Community and Junior Colleges. "Programs in Progress at AACJC." Washington, D.C., 1979c.

American Association of Community and Junior Colleges. "Types of Programs Offered in Two-Year Colleges." Washington, D.C., 1979d.

American Association of Community and Junior Colleges. 1979 Community, Junior, and Technical College Directory. Washington, D.C., 1979e.

Anderson, E.F. Three Year Comparison of Transfer and Native Student Progress at the University of Illinois at Urbana-Champaign, Fall, 1973 Group. Research Memorandum 77-9. Urbana: University of Illinois, Office of School and College Relations, 1977. 63pp. ED 149 820. Available in microfiche only.

Annas, T., and Dean, S.G. Application and Enrollment Patterns of Transfer Students, Fall 1975. Report Number 6-76A. Albany: State University of New York, 1976. 275pp. ED 131 880.

Blocker, C.E.; Plummer, R.H.; Richardson, R.C., Jr. The Two-Year College: A Social Synthesis. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965.

Brawer, F.B. (Ed.) The Humanities in Two-Year Colleges: Trends in Curriculum. Los Angeles: ERIC Clearinghouse for Junior Colleges and Center for the Study for Community Colleges, 1978. 162pp. ED 156 285.

California Community and Junior College Association. "CCJCA Prepares Community College Fact Sheet." CCJCA News, 24 (6): 1-2; March 1979a.

California Community and Junior College Association. "Community Colleges Best Suited to Teach Adults." CCJCA News, 24 (6): 5; March 1979b.

California State Postsecondary Education Commission. Access in a Broader Context: College-Going Rates in California. Sacramento, California, 1978. 84pp. ED 165 687.

California State Postsecondary Education Commission. California Community College Students Who Transfer. A Continuation of Through the Open Door: A Study of Patterns of Enrollment and Performance in California's Community

Colleges. Sacramento, California , 1979. 50pp. ED 171 350.

Carnegie Council on Policy Studies in Higher Education. Fair Practices in Higher Education. San Francisco: Jossey-Bass, Inc., 1979.

Carnevale, T.A. Qualifications of the Two-Year College Mathematics Teachers: What Are They, What Should They Be? Paper presented at the Annual Meeting of the National Council of Teachers of Mathematics, San Diego, Calif., April 1978. (ED # not yet assigned.)

Cohen, A.M. Counting the Transfer Students. Junior College Resource Review. Los Angeles: ERIC Clearinghouse for Junior Colleges, 1979. 6pp. ED 172 864.

Cosand, J.P. Perspective: Community Colleges in the 1980s. Washington, D.C.: American Association of Community and Junior Colleges, Council of Universities and Colleges; and Los Angeles: ERIC Clearinghouse for Junior Colleges, 1979. (ED# not yet assigned.)

Eells, W.C. Why Junior College Terminal Education? Washington, D.C.: American Association of Junior Colleges, 1941.

Florida Community Junior College Inter-institutional Research Council. Where Are They Now? A Follow-up of First Time in College Freshmen in Florida's Community Junior Colleges in Fall 1966. Gainesville, Florida, 1969. 56pp. ED 035 396.

Florida State Department of Education. Articulation. Tallahassee, Fla.: Division of Community Colleges, 1977a. 60pp. ED 142 246.

Florida State Department of Education. Report for Florida Community Colleges, 1975-76. Tallahassee, Fla.: Division of Community Junior Colleges, 1977b. 167pp. ED 135 430.

Freeman, R.B. The Overeducated American. New York: Academic Press, 1976.

Gleazer, E.J., Jr. "The Two-Year College." College and University Business, 36 (3): 49; March 1964.

Gold, B.K. The Statewide Longitudinal Study: First Report. Research Study #79-11. Los Angeles: Los Angeles City College, 1979. (ED# not yet assigned.)

Goodlet, J., Jr. "The Technologist: Newest Alumnus of the School of Engineering." City College Alumnus, 75 (1): 6-9, 16; October 1979.

Grant, W.V., and Lind, C.G. Digest of Education Statistics 1977-78. Washington, D.C.: National Center for Education Statistics, 1978.

Hauselman, A.J., and Tudor, D. Compendium of Selected Data and Characteristics, 1976-1977. Lexington: University of Kentucky, Community College System, 1977. 99pp ED 144 664.

Heller, B.R., and Others. 1973 Career Graduates: A Profile of CUNY Community College Students. New York: City University of New York, Graduate School and University Center, 1978. 99pp. ED 161 470. Available in microfiche only.

Hurn, C.J. "The Prospects for Liberal Education: A Sociological Perspective." Phi Delta Kappan, 60 (9): 630-633; May 1979.

Illinois Community College Board. "Highlights of Fall 1976 'End-of Registration' Enrollment Report in the Public Community Colleges of Illinois." Illinois Community College Bulletin, 11 (3): 3-6, November-December 1976a.

Illinois Community College Board. "Public Community Colleges." Illinois Community College Bulletin, 13 (5): 3-6; January 1979b.

Illinois Community College Board. "Illinois Community Colleges Seventh Biennial Report 1977-1978." Illinois Community College Bulletin, 13 (6): 3-10; February-March 1979a.

Illinois Community College Board. "Sixth Biennial Report of the Illinois Community College Board." Illinois Community College Bulletin, 11 (7): 1-4; March 1977.

Illinois Community College Board. Student Enrollment Data and Trends in the Public Community Colleges of Illinois: Fall 1975, Second Term FY 1976, and Fall 1976. Data and Characteristics Volume IV Number 1 [and] Volume V Number 2. Springfield, Ill., 1976b. 153pp. ED 135 423. Available in microfiche only.

Kintzer, F.C. Articulation and Transfer. Topical Paper No. 59. Los Angeles: ERIC Clearinghouse for Junior Colleges, 1976. 50pp. ED 130 746.

Knoell, D.M., and Medsker, L.L. From Junior to Senior College: A National Study of the Transfer Student. Washington, D.C.: American Council on Education, 1965.

Knoell, D., and Others. Through the Open Door; A Study of Patterns of Enrollment and Performance in California's Community Colleges.

Report 76-1. Sacramento: California State Postsecondary Education Commission, 1976. 82pp. ED 119 752.

Lee, R. "An ERIC Review: Reverse Transfer Students." Community College Review, 4 (2): 64-70; Fall 1976.

Lombardi, J. "Occupational Education in California Junior Colleges." The Educational Record, 45 (2): 142-147; Spring 1964.

Lombardi, J. Resurgence of Occupational Education. Topical Paper Number 65. Los Angeles: ERIC Clearinghouse for Junior Colleges, 1978. 41pp. ED 148 418.

Martinko, A. Success of Transfer Students in Pennsylvania. Harrisburg: Pennsylvania State Department of Education, 1978. 27pp. ED 165 849.

Medsker, L.L The Junior College: Progress and Prospect. New York: McGraw-Hill Book Co., 1960.

Meier, T., and Story, S. Washington Community Colleges Factbook. Olympia: Washington State Board for Community College Education, 1979. 171pp. ED 167 203. Available in microfiche only.

Middleton, L. "NAACP Concerned over 'Racial Isolation' in Cleveland's Community Colleges." The Chronicle of Higher Education, 16 (15): 9; June 19, 1978.

Miller, H.F., Jr. New Jersey Two-Year College Transfer Students. Research Report 76-1. Trenton: New Jersey State Department of Higher Education, 1976. 29pp. ED 136 882.

Moughamian, H., and Others. A Statewide Follow-Up Study of Students Who Transfer from Illinois Public Community Colleges to Illinois Four-Year Colleges and Universities. Fall 1973 Transfer Students Followed Through Spring 1976. Springfield: Illinois Community College Board, 1978. 61pp. ED 160 146. Available in microfiche only.

Nickens, J.M., and Others. Articulation. Gainesville: Florida Community Junior College Inter-institutional Research Council; and Tallahassee: Florida State Department of Education, 1975. 61pp. ED 116 721.

Parker, G.G. Career Education and Transfer Program Enrollment in 2-Year Colleges, 1973-74. ACT Special Report 11. Iowa City, Iowa: American College Testing Program, 1974a. 44pp. ED 103 031.

Parker, G.G. Collegiate Enrollees in American 2-Year Institutions, 1974-75: Statistics, Interpretations, and Trends. ACT Special Report 14. Iowa City, Iowa: American College Testing Program, 1975. 52pp. ED 114 130.

Parker, G.G. "Enrollments in American Two-Year Colleges, 1973-74: Statistics, Interpretation, and Trends." Intellect, 102 (2357): 460-473: April 1974b.

Parrish, R.M. Survey of Educational Goals Ocean County High School Juniors and Seniors. Toms River, N.J.: Ocean County College, 1979.

Rinehart, R. "Assessing Successful Articulation of Transfer Students." New Directions for Community Colleges: Assessing Student Academic and Social Progress, 5 (2): 37-50; Summer 1977.

Ryan, M. The Mature Woman in Higher Education: What's a Nice Old Girl Like You Doing in a Place Like This? Unpublished paper, 1979. (ED# not yet assigned.)

Smith, R.B. Do Curriculums Reflect Purposes? Unpublished paper, [1969]. 15pp. ED 038 972. Available in microfiche only.

State University of New York. Application and Enrollment Patterns of Transfer Students, Fall 1974. Report Number 6-76. Albany, N.Y.: Central Staff Office of Institutional Research, 1976. 235pp. ED 121 386.

Talbott, L.H. "Community Problem-Solving." New Directions for Community Colleges: Reaching Out Through Community Service, 4 (2): 83-91; Summer 1976.

Thornton, J.W., Jr. The Community Junior College. New York: John Wiley and Sons, Inc., 1966.

University of Hawaii. Survey of 1977-78 Graduates. Community Colleges. Honolulu, Hawaii: Community College System, 1979. 27pp. ED 165 847.

Wetzel, S. Student Outcomes Survey for 1975-76 Program Completers. Part I. Media, Pa.: Delaware County Community College, 1977. 62pp. ED 145 905.