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## ABSTRACT

A study was performed to compare the attrition and graduation rates of students who transferred from Cuyahoga Community College (CCC), in Cleveland, Ohio, to Kent State University (KSU) to the rates of native KSU students. Two matched groups of transfer and native students 4 years apart were studied, using only those students who had attended high school in Cuyahoga County and had Cuyahoga County addresses. In addition, the groups were proportionately matched by age, gender, and racial composition. Finally, transfer students must have transferred at least 24 credit hours from CCC and could not have attended any other postsecondary institution prior to their transfer to KSU, while native students were selected from students who had enrolled 1 year before the transfer students entered KSU, to ensure that native students had the minimum 24 credit hours. Study findings included the following: (1) the graduation rate of the CCC transfer students was equal to, or better than, the matched population of native students; (2) native students who dropped out had significantly lower grade point averages and had completed fewer semester hours than transfer students who dropped out; (3) transfer students were at a greater risk of dropping out after the first 2 years than native students; (4) while 30% of the CCC student body is non-Caucasian, only 15% of transfers were non-Caucasian; and (5) non-Caucasian transfer students performed as well as native non-Caucasian students, but compared to all students they had the least probability of completing a bachelor's degree. Implications for practice include the need to recruit community college transfer students, to provide ongoing support services to transfer students, and to actively encourage non-Caucasian students to transfer. (Contains 20 references.) (MAB)

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Do Transfer Students Graduate?  
A Comparative Study of Transfer  
Students and Native University Students

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## Abstract

Over a ten-year period, 1979-1988, 1,404 students transferred from Cuyahoga Community College to Kent State University. Their success, measured by attrition and graduation rates, was compared to matched sets of native students. The study yielded three major findings. First, the baccalaureate graduation rate of the urban community college transfer students was equal to, or better than, a matched population of native students. Second, while native students were more likely to drop out during the initial two years because of academic deficiency, it was much more difficult to predict baccalaureate attainment by transfer students based on GPA. Third, although non-Caucasian students were underrepresented in the transfer student body, they performed as well as non-Caucasian native students and were just as likely to graduate with the baccalaureate degree.

This study clearly implies action for practice parallel to the findings. Residential four-year university campuses should actively recruit transfer students from urban community college campuses. There is a need to provide ongoing support services targeted toward transfer students and provided throughout the students' academic experience. Furthermore, it is stressed that institutions must actively encourage non-Caucasian students to transfer

## Transfer Students

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through institutional commitments which include recruiting and retention components.

## Do Transfer Students Graduate?

### A Comparative Study of Transfer and Native University Students

Over the years there have been movements initiated by states and agencies to coordinate and improve the articulation of students transferring from community colleges to four-year colleges. Yet, what is known about transfer students--who they are, where they come from, their academic success and, most importantly, their success in attaining the baccalaureate degree--is still ambiguous. A few years ago a colleague led a very successful student recruiting campaign. He proudly reported the fruits of his labors to the college's president during a cabinet meeting. Rather than being praised, as expected, he was admonished by his superior: "I'm not interested in how many students you recruited this fall. What I want to know is how many of them will walk across the stage at commencement." The president was reminding the college recruiter and staff that the true indication of success was not how many students enroll, but how many graduate from their chosen academic program. "The bachelor's degree is the Dow Jones Industrial Average of U.S. Higher Education," argues Clifford Adelman (1992, p. 25-26); the degree provides a pragmatic barometer that indicates how well, or how

poorly, we are doing. This "Dow Jones" comparison is beginning to be made more often by administrators and legislators, as well as by students and parents, when assessing the community college transfer function. This research describes urban community college transfer students and their academic performance at a large residential university. Their success, measured by attrition and graduation rates, is discussed and compared to matched sets of native students.

### Background

Over the past thirty years, many studies have explored aspects of student transfer and articulation between two-year colleges and four-year colleges and universities. The results of these various studies have provided conflicting data about the success of community college students who transfer to four-year institutions. Some studies paint a very pessimistic picture of transfer student success (Adelman, 1992; Dougherty, 1992) while others portray a more optimistic view (Vaughn & Templin, 1987; Richardson & Doucette, 1980). Comparisons across studies have been complicated by methodological and sampling differences, making it difficult to draw definitive conclusions about the transfer-success phenomena.

Perhaps the first significant national study concerning two-year student transfer was conducted in the late 1950s by Knoell & Medsker (1964). This study compared the academic performance of transfer students to norms established by native four-year students. Knoell & Medsker's (1964) results revealed several important trends. Two years after transfer, 45% of the transfer students had graduated, 31% were still enrolled, and 28% had dropped out. Three years following transfer, 62% of the students earned baccalaureate degrees and 9% were still enrolled. An analysis of attrition showed that of the 29% of transfer students who dropped out only 10% withdrew as a result of academic difficulties. This suggested that most transfer students who dropped out did so for personal rather than academic reasons. Patterns or cycles of attendance-nonattendance for transfer students were significantly different than native students.

The period of general junior and senior college cooperation that characterized the 1960s and early 1970s became rare in the 1980s (Kintzer, Martarana, & Sullins, 1986). During the late seventies and early eighties, the number of small scale interinstitutional transfer-related studies increased while the findings became even less conclusive. When Anderson (1977) compared academic performance of native and transfer students, native

students were usually found to be superior performers. However, Dragon (1980) reported no significant differences between transfer and native students at Boston College. Several studies looked specifically at grade point averages. Gold (1979) reported native students' GPAs were significantly higher than those of transfer students, while Stark and Bateman (1981) and Nickens (1979) represent researchers who did not find significant differences. Hughes and Graham (1982) studied GPA after one semester at a large midwestern university and found that almost 42% of the transfer students did not achieve a 2.0 GPA or dropped out prior to the conclusion of the first semester.

When Richardson and Doucette (1980) matched transfer students and native students on high school rank, ACT or SAT scores and the number of hours completed prior to transfer, they concluded there was no difference in academic GPA once in the university. Cohen and Brawer (1982) analyzed attrition, graduation and grade point averages and reported a higher attrition rate and lower grade point average for transfer students when compared to native students.

Vaughn and Templin (1987) reported a study comparing academic performance and graduation between students from Piedmont Virginia Community College and University of Virginia native students. They found



that 79% of the PVCC transfers who entered UVA with junior status graduated within two years compared to an 86% graduation rate for native students who reached the third year. The cumulative GPA (based on grades at UVA) of PVCC transfers who graduated within two years of transfer was 3.15 compared to 3.09 for native students who entered UVA as freshmen.

Most recently, transfer and baccalaureate completion rates have been studied by Grubb (1991), Adelman (1992), and Dougherty (1992) who analyzed data from the National Longitudinal Study of the Class of 1972 (NLS-1972). Grubb's (1991) comprehensive analysis documents decreasing transfer rates per se, along with the myriad of causes of the phenomena. Adelman (1992) reports that only 30% of the class of 1972 who completed an associate degree went on to eventually earn a baccalaureate degree. Dougherty's (1992) analysis of the NLS-1972 data also reveals a less than successful picture of transfer student completion of the baccalaureate. Dougherty concludes "even when we compare students with similar traits, we find that baccalaureate aspirants entering the community college are still significantly less likely to realize their hopes" (p. 192).

This select literature review highlights some of the variation in findings associated with transfer student success in the past 30 years. The review

illustrates the difficulty in determining whether community college transfer students can be as successful as students who begin their academic programs in the four-year setting. Furthermore, it remains difficult to determine under what specific conditions and settings transfer students are most likely to be successful in completing the baccalaureate.

#### Need for this Study

Recently, Judith Eaton (1988) in "Minorities, Transfer and Higher Education" criticized both two-year and four-year institutions for not focusing enough attention on the transfer issue. Not only do institutions provide little data about transfer, many two-year and four-year institutions, according to Eaton, "do not collaborate to determine the extent of transfer effectiveness between institutions" (p. 64)... "the transfer function effort in community colleges remains hampered by the need for a research agenda including a comprehensive data base and models of transfer analysis" (p. 65).

Consistent with Eaton's (1988) recommendations, Clegg, Shoup and Liu (1990) conducted a transfer study to determine the success and persistence of transfer students matriculating from Cuyahoga Community College to Kent State University during a ten year period. While this study was important in establishing a transfer student data base, it raised more questions regarding

how these transfer students performed in comparison to native students. A transfer-native comparative study was designed to address the following questions. Do transfer students graduate, earn bachelor's degrees, at the same rate as native students? Furthermore, what is the relationship of transfer student graduation rates, with age, gender and race variables, when compared with matched groups of native students?

#### Method

Building upon the line of inquiry initiated by Knoell and Medsker (1964) advanced by Cohen and Brawer (1982) and Vaughn and Templin (1987), a transfer-native comparison study was designed. The method includes several unique controls to allow for a more accurate picture of transfer student success.

First, drawing from the longitudinal data base of Clegg, Shoup and Liu (1990), two matched group studies four years apart were conducted to provide an additional validation procedure. To control for regional background differences that might exist between transfer and native students, all students included in the study had Cuyahoga County addresses and attended high school in Cuyahoga County. Transfer and native students were proportionately matched by age, gender and racial composition.

The transfer student groups were formed by identifying all students who had transferred at least 24 credit hours from Cuyahoga Community College upon their first enrollment at Kent State University either in the Fall of 1980 (Group 1) or the Fall of 1984 (Group 2). This control assured that the transfer groups had spent sufficient time in coursework (approximately one year) at the community college prior to transfer. Furthermore, transfer students could not have attended any other postsecondary institution prior to their transfer to Kent. A total of 185 students met all of these conditions, with 99 in Group 1 and 86 in Group 2.

Matched groups of native students were formed by identifying all Kent State University students who had Cuyahoga County addresses when they matriculated, who attended high school in Cuyahoga County and first enrolled at Kent State University in either Fall semester 1979 (Group 1) or Fall semester 1983 (Group 2). Staggering starting years for transfers and natives was incorporated to give all native student participants the opportunity to complete at least 24 hours prior to the first enrollments of the transfer students in 1980 or 1984. To be included in the comparative study, native students could not have attended any other postsecondary institution prior to or during their careers at Kent State University. Based upon these initial

specifications, a pool of 458 potential native students was identified for Group 1 and 614 for Group 2. The final matched native groups were formed by randomly sampling down from the native pools to match the actual number of transfer students in each group and their age, gender and racial composition proportions.

This methodology has several advantages over previous studies. Both native and transfer students had completed approximately a year of coursework before being included in the study. This helped assure that both sets of students were serious college students. The study's method also enabled an extended time span of inquiry allowing native and transfer students six years to complete the bachelors degree. Previous studies have been criticized for not allowing sufficient time for transfer students to complete their programs. Even Knoell and Medsker's (1964) study showed improved baccalaureate attainment for transfers after including an additional year for follow-up. Finally, all students in the study whether natives or transfers, were from the home county of the community college.

#### Data Analysis

To test for significant differences between the means of the two native groups (1 and 2) and their corresponding transfer groups (1 and 2), a t-test for

independent samples was used (Ferguson, 1981). The t-test comparisons were conducted between natives and transfers on the following variables: 1) differences between mean GPA first two years of college; 2) differences between mean GPA last three years at the university; 3) differences between mean semester hours completed during first two years; and, 4) differences between mean semester hours completed during final two years at the university.

Since there were actually two independent studies, ANOVA was used to determine the significance of the differences between variances for the independent sample means on the above four variables. A Chi square test of independence was used to test the difference in percentage of bachelors degrees awarded between groups, through the Spring term 1988. Finally, attrition data for all groups were calculated and compared.

### Results

The matched transfer-native comparison study yielded three major findings. First, the graduation rate of the urban community college transfer students was equal to, or better than, a matched population of native students. Additional analyses revealed there were no significant differences between transfer and native students' grade point averages when compared following

the second and fifth year of attendance at Kent State University. There also was no significant GPA difference found related to age, gender, race or even high school attended. In effect, urban community college transfer students clearly performed as well as native students.

Second, an analysis of attrition did produce significant differences between the transfer and native students. Attrition, generally meaning non-completion or dropping out, is operationally defined in this study to describe any student who failed to enroll for three consecutive semesters. Over 70% of all native student attrition took place over the course of the first two years, or first four semesters. Native students who dropped out had significantly lower grade point averages and had completed fewer semester hours than transfer students who dropped out. Conversely, transfer students who dropped out did so with significantly higher grade point averages and more academic hours completed. In fact, transfer students were at greater risk for dropping out after the first two years than native students. It was also not uncommon for transfer students to have a "C" or better grade point average when they dropped out.

The third set of findings yielded good news-bad news results. About 15% of the transfers were non-Caucasian and most of them were African-

Americans. Since over 30% of the Cuyahoga Community College student body is made up of non-Caucasian students, they were underrepresented in the transfer group. The good news findings were non-Caucasian transfer students performed as well as native non-Caucasian students and were just as likely to graduate from Kent State University. Now for the bad news. Non-Caucasian students, whether native or transfer, had the least probability of completing a bachelor's degree and were most likely to leave school, with 70% of the dropouts taking place by the end of the second semester.

#### Implications for Practice

These findings have important implications for practice at Cuyahoga Community College, Kent State University and other similar institutions. The implications parallel the three major findings.

#### Graduation Rate

This study clearly demonstrates urban community college students can experience the same degree of success as their native student counterparts at a comprehensive four-year university. This finding is consistent with others (Richardson & Doucette, 1980; Brown, 1976; Vaughn & Templin, 1987) who used matched native and transfer samples. Clearly, transfer students can, and do, perform on a par with native students and should be actively recruited.



Urban commuter universities historically have counted upon community college transfer students for a significant portion of their enrollment. Many residential universities, such as Kent State University, historically have overlooked community college students, especially those from urban campuses. Adelman (1992) found that 85% of the class of 1972 students who while in high school planned to attend a community college then transfer to a four-year institution eventually did transfer. This fact and the results of this study clearly suggests the importance of early advising programs, especially those programs that orient students (even as early as high school) to requirements for admission and transfer of courses.

#### Attrition Patterns

The attrition findings have a lot to say about how student support services are organized at senior institutions. The current freshman orientation and academic counseling practices are designed to help students with the greatest risk of dropping out in the first two years of their academic experience. Once the native student survives the first two years and has a "C" or better grade point average, there is little risk they will drop out.

The attrition findings indicate transfer students do not conform to traditional student support service practices. Transfer students in this study

seemed to be very committed to study at the senior institution and performed better than matched native students during the first two years. Although this result is quite different from that reported by Knoell & Medsker (1964), who found transfer students were much more likely to drop out during the first year, this isn't surprising. The students making the transition from the community college to the senior institution, especially one lacking community college recruiting or support mechanisms, had to have considerable personal commitment. It can also be inferred that transfer students have more external factors competing with their academic study than native students. After the initial two years, transfer students were more at-risk than native students to drop out. Their dropping out was also more difficult to predict. Whereas native student dropouts usually have grade point average problems to serve as "early warning" systems, this was not the case for transfer students who often dropped out or stopped out with good grades. This finding emphasizes the need to provide ongoing support services focused on transfer students throughout their academic experience (Davis, 1991).

The non-Caucasian student findings are the most distressing. Approximately 22% of all students enrolled at community colleges nationally are non-Caucasian. This percentage has gradually been increasing over recent

years with a steady increase in Hispanic and American-Asian students enrolled at community colleges and a slight decrease in Caucasian and African-American students (Adelman, 1992). Currently it is reported that community colleges enroll almost half of all non-Caucasian students participating in higher education (Adelman, 1992). Cuyahoga Community College reflects these national data with over 30% of the student body reported as non-Caucasians.

Over the course of the ten years covered by the baseline study, 15% of the transfers were non-Caucasian and were from groups underrepresented in higher education. If one expects the transfer patterns at an institution to reflect the institutional demographics, at least equal numbers of the transfer population would have been expected to be non-Caucasian. The great tragedy described by the data was the difficulty non-Caucasian students had in successfully completing after they transferred. True, their prospects were about equal to the matched native student groups, but having 70% of all non-Caucasian students exiting the university during the first year, transfer or native, is cause for alarm.

Kent State University and Cuyahoga Community College have made institutional commitments to address this problem. The institutions formed

a joint steering committee to continuously evaluate, revise and support the transfer efforts of all students, with special attention to the participation and performance of non-Caucasian students. Through this work, recruiting materials were developed and disseminated to potential transfer students. Orientation sessions have also been organized and conducted by both community college and university personnel in the areas of admissions, financial aid, student services and academic programs. Finally, students who do transfer are identified and advised in groups both prior to and after their transfer. Once at the senior institution they are tracked and their progress is monitored on a semester by semester basis. Although this program is just in the beginning stages, there are definite indications that the number of able students, especially non-Caucasian, electing to transfer is increasing as is the academic success and continuous enrollment of this group.

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