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Transfer Behavior of Iowa Community College Students

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Today's American community colleges are known for their comprehensive mission. Cohen and Brawer (2003) articulate this mission to include curricular functions of academic transfer preparation, vocational-technical education, continuing education, developmental education and community service. Laanan (2007) argues that "the transfer function serves as the critical point of entry toward the baccalaureate for an increasing number of students" (p. 38).

Researchers, educators, and policymakers have long been interested in measuring the impact of student transfer. Specifically, patterns of transfer behavior and transfer rates have been an ongoing inquiry. Traditionally, transfer behavior has been vertical or linear – a community college student transfers from the community college directly to the four-year institution – and is often used to calculate transfer rates. Although students have exhibited diverse patterns of transfer (e.g., linear, reverse, swirl, lateral, dual, concurrent, etc.), the vertical aspect of transfer is more widely studied at institutional, state, and national levels (Adelman, 2005; Hagedorn et al., 2006; Townsend, 2002). Previous studies that specifically address transfer behavior and transfer rates in Iowa have noted the limitations of institutional data to track Iowa community college students who transfer to non-Regent institutions or out-of-state institutions (Breja, 2006; Fields, 2001; Giddings, 1985).

Recently, researchers have sought to provide a more substantive and comprehensive picture of transfer behavior and transfer rates by matching institutional data with national data sets (Bers, 2001; Bougham, 2001; Romano & Wisniewski, 2003). In particular, the National Student Clearinghouse (NSC) data, which are comprised of enrollment and degree verification data for over 91% of U.S. college students representing over 2,800 colleges, capture a greater number of transfers left out of institutional and state analyses regarding transfer enrollment patterns and degree completion (NSC, 2006).

The Iowa Department of Education (IDE), with support from the State Board of Education, has recently adopted performance indicators which include improving measures of transfer and retention that "quantify the success" of

community college students (IDE, 2007). In response to the need to improve measures of student success, enrollment data from the NSC were used to study transfer patterns and transfer rates of Iowa community college students.

This brief highlights findings from the study of transfer behaviors of former Iowa community college students. Specifically, two groups were analyzed: 1) Associate in Arts (AA) award recipients; and 2) non-award recipients. Non-award recipients are defined as students who transferred without receiving any awards from an Iowa community college.

Data were obtained from the Iowa Department of Education Management Information System (MIS) and the NSC to examine the transfer behaviors of the fiscal year (FY) 2002 cohort of Iowa community college award recipients and non-award recipients. MIS data files containing demographic information, educational records, and FY 2002 award information were merged with NSC educational records to analyze transfer behavior in the state of Iowa.

Several questions guided this investigation:

- How many students receiving an Associate in Arts (AA) in FY 2002 transferred to any postsecondary institution within one year, two years, and three years after graduating from an Iowa community college?
- How many students who attended an Iowa community college in FY 2002 and left without completing a degree transferred to another institution?
- What are the annual and cumulative transfer rates for AA award recipients and non-award recipients?

The enrollment status of all FY 2002 AA award recipients and non-award recipients at any postsecondary institutions was examined during FY 2005 using the NSC enrollment file. Those who were found to be enrolled in any postsecondary institutions were disaggregated according to the type of institution (two- or four-year institution) attended. If students were enrolled in four-year institutions, they were also disaggregated by the location

and control of the institution: 1) in-state public, consisting of three Regent universities: University of Iowa (SUI), Iowa State University (ISU), and University of Northern Iowa (UNI); 2) in-state private institutions; and 3) out-of-state enrollments. To remove any duplicated enrollment records the most recent enrollment was selected within the target fiscal year. Thus, the results were based on unduplicated enrollment status of FY 2002 Iowa community college students in the target fiscal year.

Also, annual and cumulative transfer rates for AA award recipients and non-award recipients were calculated. The annual transfer rate, which is a cross-sectional approach, represents the unduplicated number of individuals transferring to a four-year institution in FY 2003, 2004, or 2005 divided by the total number of individuals in the FY 2002 cohort. The cumulative transfer rate, which is a longitudinal approach, represents the unduplicated number of individuals transferring to a four-year institution in FY 2003, FY 2003-2004, or FY 2003-2005 divided by the total number of individuals in the FY 2002 cohort.

Finally, implications for further research and policy are provided.

Findings

This brief includes findings of student transfer behavior among Iowa community college AA award recipients and non-award recipients.

AA Award Recipients

Figure 1 shows the enrollment patterns for FY 2002 AA award recipients in FY 2005. The results from the analysis include the following:

- Regent universities enrolled one-half (50%) of FY 2002 AA award recipients in FY 2005.
- The percentage of FY 2002 AA award recipients enrolled in in-state private universities in Iowa was 29% in 2005.
- Out-of-state four-year institutions enrolled 21% of FY 2002 AA award recipients in FY 2005.
- Among the three Regent universities, University of Northern Iowa enrolled the highest percentage (44%) of AA award recipients.

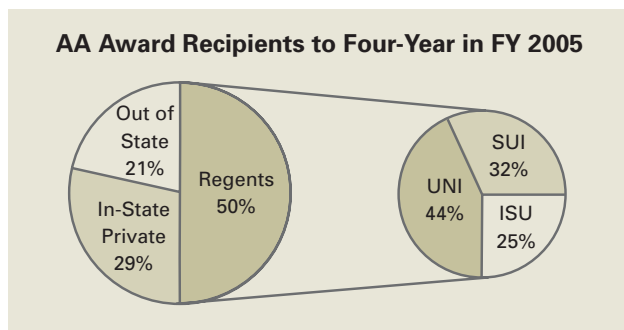


FIGURE 1. Percent of FY 2002 AA Award Recipients Enrolled at Four-Year Institutions in FY 2005.

Analysis of Transfer Rates for FY 2002 AA Award Recipients

The analysis of transfer rates for AA award recipients are shown in Table 1. The annual transfer rate represents the unduplicated number of individuals transferring to a four-year institution in a given year divided by the total number of FY 2002 AA award recipients. The cumulative transfer rate represents the unduplicated number of individuals transferring to a four-year institution in FY 2003, FY 2003-2004, or FY 2003-2005 divided by the total number of FY 2002 AA award recipients.

- The within one-year cumulative transfer rate for FY 2002 AA award recipients was 55.2% (2,048 individuals).
- The within two-year cumulative transfer rate for FY 2002 AA award recipients was 64.4% (2,392 individuals).
- The within three-year cumulative transfer rate for FY 2002 AA award recipients was 67.1% (2,491 individuals).

TABLE 1 – Transfer Rate of FY 2002 AA Award Recipients to Four-Year Institutions Fiscal Years 2003, 2004, 2005 (N = 3,713)

	2003		2004		2005	
	N	%	N	%	N	%
Annual Transfer Rate	2,048	55.2%	2,131	57.4%	1,459	39.3%
Cumulative Transfer Rate	2,048	55.2%	2,392	64.4%	2,491	67.1%

Data Sources: Iowa Department of Education, Bureau of Community Colleges and Career and Technical Education; National Student Clearinghouse enrollment data

Non-Award Recipients

Non-award recipients are defined as those who: 1) were enrolled in FY 2002 at an Iowa community college; 2) were not enrolled in FY 2002 at any 4-year institution; 3) were not enrolled in FY 2002 in high school; and 4) did not receive any type of award in FY 2002, 2003, 2004, or 2005 from an Iowa community college.

Figure 2 shows the results for non-award recipients. The results from the analysis include the following:

- Regent universities enrolled 42% of community college students who transfer before completing a degree, diploma, certificate, or other credential in FY 2005.
- Approximately 30% of FY 2002 non-award recipients enrolled in out-of-state four-year institutions in FY 2005.
- Among the three Regent universities, Iowa State University enrolled the highest percentage of non-award recipients in FY 2005.

Non-Award Recipients to Four-Year in FY 2005

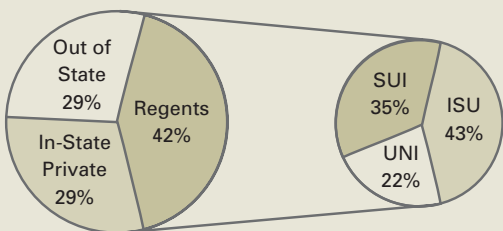


FIGURE 2. Percent of FY 2002 Non-Award Recipients Enrolled at Four-Year Institutions in FY 2005.

Analysis of Transfer Rates for FY 2002 Non-Award Recipients

The analysis of transfer rates for non-award recipients are shown in Table 2. The annual transfer rate represents the number of individuals (unduplicated enrollment) transferring to a four-year institution in a given year divided by the total number of FY 2002 non-award recipients. The cumulative transfer rate represents the unduplicated number of individuals transferring to a four-year institution in FY 2003, FY 2003-2004, or FY 2003-2005 divided by the total number of FY 2002 non-award recipients.

- The within one-year cumulative transfer rate for FY 2002 non-award recipients was 7.7% (3,820 individuals).
- The within two-year cumulative transfer rate for FY 2002 non-award recipients was 12.9% (6,418 individuals).
- The within three-year cumulative transfer rate for FY 2002 non-award recipients was 15.6% (7,798 individuals).

TABLE 2 – Transfer Rate of FY 2002 Non-Award Recipients to Four-Year Institutions Fiscal Years 2003, 2004, and 2005 (N = 49,895)

	2003		2004		2005	
	N	%	N	%	N	%
Annual Transfer Rate	3,820	7.7%	5,579	11.2%	5,732	11.5%
Cumulative Transfer Rate	3,820	7.7%	6,418	12.9%	7,798	15.6%

Data Sources: Iowa Department of Education, Bureau of Community Colleges and Career and Technical Education; National Student Clearinghouse enrollment data

Enrollment Patterns

- The highest enrollment of AA award recipients and non-award recipients in FY 2002, FY 2003, and FY 2005 in Regent universities were from Des Moines Area Community College and Kirkwood Community College.
- Buena Vista University was the leading Iowa private

in-state institution enrolling AA and non-award recipients in FY 2004 and FY 2005.

- Western Illinois University was the leading out-of-state four-year institution enrolling AA award recipients in FY 2003, FY 2004, and FY 2005.

Limitations

There are several limitations with the analyses using the National Student Clearinghouse enrollment data file. The NSC provides enrollment status, determined by the beginning and ending dates of enrollment during each semester or term. As a result, the researchers were not able to account for the following: completion of a degree program or attainment and students' goals or educational experiences.

Finally, the enrollment data file from the NSC does not include selected institutions that have not participated in the NSC data collection during the fiscal years from 2002 to 2005. Particularly, Buena Vista University did participate in the NSC in FY 2003, and Drake University did not participate in any of the years considered for this study.

Discussion

This brief demonstrates the importance of two groups of community college students: AA award recipients and non-award recipients. In Iowa, the AA degree is important because it is intended to be the primary degree for individuals seeking to transfer to four-year institutions. This study shows that a large percentage (67.1%) of all students who obtained this degree transferred to a four-year institution within three years.

Of those who did not obtain degrees at Iowa community colleges, a smaller percentage transferred to four-year institutions (15.6%). However, despite the small percentage of non-award recipients who transferred, this group represented a large number of the total transfers from Iowa community colleges (7,798). Because of the size of this group of students, the outcomes of this group deserve further attention from administrators, policymakers, and researchers.

Regarding the transfer destinations of Iowa community college students, Iowa Regent universities enrolled the largest portion of transfers from Iowa community colleges, with approximately one-half of AA award recipients and 42% of non-award recipients within three years. Although Iowa private colleges and universities received less than one-third of Iowa transfers, an equivalent amount of Iowa transfers (the state's human capital resources) were lost to neighboring educational institutions in Midwestern states including Illinois, Missouri, Nebraska, and Minnesota. This drain from the state was largest for those who did not complete a degree program at the community college.

Implications for Research and Policy

As Iowa community colleges continue to meet the diverse needs of the state through access to educational opportunities and workforce development, it is critical that Iowa continues to use research to inform policy development with regard to transfer students. Implications for research and policy include:

- an exploration of the factors that are associated with higher rates of retention and graduation among Iowa's transfer students;

- additional studies that examine the assessment of student outcomes among associate degree recipients and non-award recipients for the purpose of informing institutional leaders and faculty at all levels;
- strategies to reclaim Iowa's human capital and resources as the state competes with educational opportunities found in neighboring states;
- further study of non-traditional transfer behavior due to the large number of individuals who leave the community college without completing a degree program; and
- more qualitative studies which provide in-depth understanding of the experiences of transfer students.

In conclusion, Iowa policymakers and postsecondary institutional administrators should continue to support research on transfer students and develop policies and procedures that enhance educational opportunities and economic prosperity of Iowa citizens.

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