A study was performed at Northern Illinois University (NIU) to measure the effect of "transfer shock" on community college students' academic performance during their first semesters of enrollment at NIU, as well as to determine whether academic class, gender, ethnicity, age, major, resident status, and previous degree achievements had any influence on transfer shock. The study examined mean grade point averages (GPA's) at transfer and for each of four semesters at NIU beginning fall 1989. Results of the study included: (1) overall, students did experience some degree of transfer shock, with junior transfer students' GPA's declining from 3.099 to 2.764 in their first term and sophomore transfers' GPA's falling from 2.971 to 2.677; (2) students transferring from Illinois public community colleges generally showed a higher degree of transfer shock than did transfers from all other institutions, especially at the sophomore level; (3) earning an Associate degree seemed to be a positive factor in academic performance; (4) women brought better transfer GPA's than the men, and generally outperformed men at both levels; (5) transfers aged 25 and over experienced very little transfer shock, while the under-21 group outperformed their 21-24 year old peers; (6) minority Illinois community college transfers brought in lower transfer GPA's and experienced a greater degree of transfer shock; and (7) transfer performance varied widely by majors. A list of references and data presented in graph form are included. (MAB)
Transfer Shock Revisited: A Longitudinal Study of Transfer Academic Performance

Edward J. Keeley, III
National-Louis University

J. Daniel House
Northern Illinois University


Address correspondence to E. J. Keeley, Associate Director, Institutional Research, National-Louis University, 2840 Sheridan Road, Evanston, Illinois, 60201.
ABSTRACT
This study examines the phenomenon of "transfer shock," in which a student's academic performance (as measured by grade-point average) drops in the first semester of his or her enrollment at a new institution as he or she becomes adjusted to the new situation. The study sought to determine if transfer shock occurred, and if it differed by such factors as class level, gender, ethnicity, age, major chosen, residence status, and whether the student earned an associate degree before transferring. Generally, performance did decline in the first term after transfer, but returned to the level of native students within one or two terms. There were marked differences in the degree of transfer shock by the aforementioned factors.
PURPOSE

The purpose of this study was to quantify the phenomenon known as "transfer shock," and to investigate the effects of student characteristics such as student age, gender, class level, ethnicity, residence status, and having earned an associate degree or not on the grade performance of transfer students. In addition, transfers from four-year institutions were compared to those from two-year institutions, as were native students compared to students who transferred.

LITERATURE REVIEW

Each year, large numbers of students who begin their college careers at community colleges subsequently transfer to four-year colleges and universities. In California, for example, an estimated 40,000 to 60,000 students transferred from community colleges to four-year colleges around the country in 1984 (McIntyre, 1987). The Illinois Community College Board reported that 9,757 students transferred from two-year colleges to four-year colleges in Illinois for the Fall 1979 term (Illinois Community College Board, 1986). In addition, at some universities the number of transfer students has continued to exhibit growth. For example, a recent report indicated that the number of students who transferred from the Maricopa County Community College District (MCCCD) to Arizona State University had increased dramatically between 1982 and 1988 (De Los Santos & Wright, 1989). Given the large number of students who transfer from community colleges to four-year institutions, it is important to identify factors that are related to transfer students' academic outcomes. However, as noted by Johnson (1987), relatively little is known about specific factors that may influence the academic performance of students who transfer from community colleges to four-year colleges and universities.

A number of studies have examined the academic performance of students who transfer from community colleges to four-year colleges and universities. The most consistent finding is that transfer students' grade performance shows a drop during the first semester after transferring to the four-year school; this phenomenon is known as "transfer shock." Transfer students have generally earned grades that are .20 to .30 points lower than their GPAs before transfer (Gold, 1971; Nolan & Hall, 1978; Webb, 1971). This change in students' grade
performance after transfer has also been examined by Fernandez, et al. (1985); for students who began at Nassau Community College and subsequently transferred, they reported a correlation of 0.49 between students' grades at Nassau Community College and their subsequent grades at four-year schools. In addition, the trend of lower grades immediately after transfer appears to be consistent whether grade information was obtained from an analysis of student records or from students' self-reported grades (Peng & Bailey, 1977). Finally, it has been noted that transfer students' grades tend to regain the level of native students after the first semester (Nolan & Hall, 1978).

Results from the National Longitudinal Study of the Class of 1972 and the High School and Beyond study of the high school class of 1980 indicate that a considerable number of minority students who received bachelor's degrees began their post-secondary education at community colleges (Grubb, 1991). However, only limited research has examined specific characteristics, such as gender or ethnicity, that may be related to the academic performance of community college transfer students. In a study of 954 transfer engineering students and 2,226 native engineering students at the University of Texas at Austin, transfer students' gender and ethnicity were found to be related to grade performance (Durio, Helmick, & Slover, 1982). For this analysis, students who transferred from community colleges and other four-year colleges were both included in the sample of transfer students. In this study, female transfer students earned higher grades than female native students while male native students earned higher grades than male transfer students. Considering ethnic group, it was found that white and Mexican-American native students earned higher grades than white and Mexican-American transfer students. African-American transfer students, however, earned slightly higher grades than African-American native students. Further research is needed to determine if these results would be obtained for the cumulative grade performance of students who transferred only from community colleges.

Another factor that appears to be related to the academic performance of transfer students is the time during the students' academic career that the transfer occurs. Previous research has indicated that students who transfer from the community college to the four-year school as juniors earn higher grades, have higher graduation rates, and have lower academic dismissal rates than students who transfer as freshmen or sophomores (House, 1989).
However, this study did not examine the effects of student gender or ethnicity. Consequently, additional study is needed to clarify the relationships between student characteristics and academic performance by community college transfer students.

**METHODOLOGY**

The students included in the study were new sophomore and junior transfers who entered Northern Illinois University in Fall 1989 and were enrolled each semester through Spring 1991. Variables such as class, age, gender, ethnicity, college of major at Northern, having earned an associate degree or not, and residence status (e.g., NIU residence halls, commuting from off-campus) were all examined as possible explanatory factors in the degree of transfer shock experienced. The study examined mean grade-point average (GPA) at five points in time: the cumulative transfer GPA, and the current term (rather than cumulative) GPA for each of the first four semesters enrolled at Northern (Fall 1989, Spring 1990, Fall 1990, and Spring 1991).

**FINDINGS AND DISCUSSION**

Overall, students did experience some degree of transfer shock in their academic careers at Northern. For example, junior transfers from all institutions brought a 3.099 transfer GPA to Northern, but fell to a 2.764 first-term GPA in Fall 1989. By their fourth semester, however, they were back up to a mean GPA of 3.015. Clearly, a great deal of adjustment had taken place from the students' first to fourth semesters at Northern as reflected in their academic performance.

Likewise, sophomores brought in a 2.971 transfer GPA, only to fall to a 2.677 first-term GPA, then back up to 2.816 in the fourth term. The sophomore transfers’ experience was different from the juniors’, though, in that the sophomores didn’t improve much after their second semester, while the juniors showed marked improvement in each of the three semesters following their first at Northern. Perhaps this says something about the degree of preparedness of sophomore transfers relative to juniors. Sophomore transfers tend not to do as well academically (they have the highest rate of academic dismissal for transfers), nor do they graduate in the same proportions as do junior transfers at Northern.
It was also important to compare transfers with those students who came to Northern as native freshmen. The following table shows GPAs for sophomores and juniors in Fall 1989 who came to Northern as transfers from Illinois community colleges versus those who came as native freshmen (and were sophomores and juniors in Fall 1989):

<table>
<thead>
<tr>
<th></th>
<th>Sophomore Native</th>
<th>Sophomore Transfer</th>
<th>Junior Native</th>
<th>Junior Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer GPA</td>
<td>N/A</td>
<td>2.957</td>
<td>N/A</td>
<td>3.099</td>
</tr>
<tr>
<td>Fall 1989</td>
<td>2.693</td>
<td>2.611</td>
<td>2.796</td>
<td>2.739</td>
</tr>
<tr>
<td>Spring 1990</td>
<td>2.819</td>
<td>2.745</td>
<td>2.868</td>
<td>2.868</td>
</tr>
<tr>
<td>Fall 1990</td>
<td>2.781</td>
<td>2.754</td>
<td>2.889</td>
<td>2.929</td>
</tr>
<tr>
<td>Spring 1991</td>
<td>2.829</td>
<td>2.733</td>
<td>2.962</td>
<td>3.010</td>
</tr>
</tbody>
</table>

By the third term, junior transfers from Illinois community colleges outperformed their native counterparts after having caught them in the second term. Sophomore transfers didn’t fare as well, however, although they stayed relatively close to native sophomores through four terms. Of course, these differences may be partially attributable to differences in major, age, etc. Also, this analysis only considered students who were enrolled at Northern for all four terms, yet native juniors tend to have lower attrition rates than do junior transfers (e.g., of all native juniors in Fall 1989, more than 90 percent continued through Spring 1991, but only about 70 percent of all junior transfers in Fall 1989 continued through Spring 1991).

Illinois Two-year vs. Other Transfers

Transfers from Illinois public community colleges, who comprised 60 percent of all sophomore transfers and 89 percent of all junior transfers to Northern, generally showed a higher degree of transfer shock than did transfers from all other institutions, especially at the sophomore level. Junior transfers from Illinois community colleges came in with almost identical transfer GPAs as others, dropped further in their first semester at Northern, and
made up almost all of the difference by their fourth term. The Illinois two-year sophomores also came in with similar transfer GPAs, but fell behind other transfers after the first semester by about 0.2 GPA points and didn’t make up the difference after four terms.

Of course, one of the limitations of this analysis is that the other transfers represent a very diverse group of institutions, ranging from large public institutions to small private colleges to out-of-state community colleges. Therefore, it is hard to draw any conclusions about the nature of "other" transfers because they are so heterogeneous. Many of the other transfers come to Northern from institutions that are very similar to Northern, so the shock of attending a large, public four-year institution is not a factor.

(Note: The following sections include only Illinois public community college transfers in the sample.)

**Associate Degree Earned**

For junior Illinois community college transfers, earning the Associate degree seemed to be a positive factor in academic performance (81.3 percent of these transfers had earned the degree). AA/AS holders didn’t drop as far in their first semester at Northern as non-AA/AS earning junior transfers, and by the fourth semester they had a significantly higher GPA than non-AA/AS earners (3.042 vs. 2.885). Of course, this possibly says something about the type of student who earns an Associate degree rather than about the intrinsic value of the degree itself.

**Gender**

For both sophomore and junior Illinois community college transfers, women brought better transfer GPAs to Northern than did men. Also, women generally outperformed men at both levels, particularly at the junior level, where fourth-term GPAs were very different (3.137 vs. 2.829). In fact, junior women outperformed men at every point in time, whereas sophomore women’s first-term GPA dropped about as low as did men’s, only to be about 0.15 points above the men’s after four terms. This difference may be due in part to the
major colleges in which women enrolled relative to men, although women did bring in higher transfer GPAs than men regardless of major college.

Age Group

Age seemed to be a very important factor in transfer success and avoidance of transfer shock. Those transfers age 25 and older experienced very little transfer shock, both at the sophomore and junior levels. In fact, sophomore transfers in this age group actually showed an increase from transfer GPA to first-term Northern GPA. Junior transfers who were 25 and older brought in a 3.334 transfer GPA, and by the fourth term at Northern had earned a mean GPA of 3.322.

Although there was little surprise at the performance of the older students, what was surprising was the superior showing of the under-21 age group relative to the 21-24 age group. Both sophomores and juniors in the under-21 group outperformed their 21-24 peers at each point in time. The under-21 sophomores opened up a sizeable GPA advantage (2.801 vs. 2.461) over the 21-24 group by the fourth term. Perhaps those students in the under-21 group are moving through their academic careers "on time," while the 21-24 group is a year or two behind schedule and not quite as focused as the others. Obviously, much more research would need to be done to address this issue accurately.

Ethnicity

Because of small sample sizes in each minority transfer group, the Black, Hispanic, Asian, and Native American groups were combined into a "minority" comparison group, even though this group is very heterogeneous and does not lend itself to definitive comparisons because of this diversity.

Nevertheless, mean GPAs were computed for minorities relative to non-minority transfers. Generally, minority Illinois community college transfers brought in lower transfer GPAs to Northern, experienced a greater degree of transfer shock, and had lower Northern GPAs than did non-minorities. However, junior minorities were "closing the gap" after four terms, and both sophomore and junior minority transfers maintained more-than-acceptable GPAs after four terms (2.607 and 2.853, respectively).
Major College at Northern

Transfers varied widely in performance by the major college they chose at Northern. For both sophomores and juniors, Business majors brought in the highest transfer GPAs, although junior Business majors showed a dramatic transfer shock effect, dropping from a 3.272 transfer GPA to a 2.680 first-term Northern GPA. On the other hand, some transfers (such as those in Engineering) showed little transfer shock at all, and transfers in Engineering and Professional Studies had fourth-term GPAs that were higher than their transfer GPAs. As mentioned before, this variable may be confounded with sex, as women chose different major colleges than men (e.g., women tended to enroll in the Colleges of Education, Professional Studies, and Visual and Performing Arts).

Residence Status

Lastly, the type of housing situation into which a new transfer entered at Northern was thought to be a factor in performance. For juniors, those commuting to campus from outside DeKalb showed significantly higher GPAs than both those living in NIU residence halls and those living in off-campus DeKalb-area housing. Of course, this could be related to the age of commuters relative to those living elsewhere, and age has already been shown to be an important factor in transfer performance.

Determining differences by residence status for sophomores was much more difficult than for juniors. The three groups brought in almost identical transfer GPAs, and by the fourth term those sophomores living in NIU residence halls had earned higher grades than commuters and off-campus residents. In the first three terms, however, the ranking of the three groups fluctuated wildly, not allowing for any consistent conclusions to be drawn.

CONCLUSION

The phenomenon of transfer shock did indeed take place at Northern Illinois University among the students studied here, and several factors that may help to explain its occurrence were examined. For example, notable differences were found for the performance of students who transferred as juniors compared to those who transferred as sophomores. Factors that were associated with better academic performance included
earning an associate degree, being 25 years of age or older, and being female. Transfer shock was also found to vary by ethnicity and the major field of study chosen at NIU.

By understanding transfer shock, perhaps some of its severity can be lessened if those students most "at risk" can be identified and provided with services and information to help combat it. Also, it is important for those institutions from which students transfer to work together with the institutions to which these students transfer to help alleviate the problem. Perhaps seminars in dealing with large lecture courses or in living on one's own for the first time could be offered. Whatever actions may be taken, the first step in solving the problem is understanding it through empirical research, and that has been the purpose of this study.
References


### Longitudinal Grade-Point Averages for Sophomore Transfers
**Fall 1989 – Spring 1991**

<table>
<thead>
<tr>
<th>Cumulative Transfer GPA</th>
<th>NIU Current-term GPAs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall 1989</td>
</tr>
<tr>
<td>All Sophomores</td>
<td>2.971</td>
</tr>
<tr>
<td>IL 2-year Colleges</td>
<td>2.957</td>
</tr>
<tr>
<td>Other Colleges/Univ's</td>
<td>2.994</td>
</tr>
</tbody>
</table>

**ILLINOIS TWO-YEAR COLLEGES ONLY:**

<table>
<thead>
<tr>
<th>Gender:</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>2.903</td>
<td>2.601</td>
<td>2.783</td>
<td>2.637</td>
</tr>
<tr>
<td>Female</td>
<td>3.015</td>
<td>2.621</td>
<td>2.705</td>
<td>2.878</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Group:</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>20 and younger</td>
<td>2.988</td>
<td>2.571</td>
<td>2.755</td>
<td>2.823</td>
</tr>
<tr>
<td>21 to 24</td>
<td>2.814</td>
<td>2.542</td>
<td>2.663</td>
<td>2.461</td>
</tr>
<tr>
<td>25 and older</td>
<td>3.043</td>
<td>3.107</td>
<td>2.862</td>
<td>2.905</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity:</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority</td>
<td>2.801</td>
<td>2.404</td>
<td>2.658</td>
<td>2.604</td>
</tr>
<tr>
<td>Non-Minority</td>
<td>2.970</td>
<td>2.629</td>
<td>2.753</td>
<td>2.767</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Major at NIU:</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>3.033</td>
<td>2.732</td>
<td>2.849</td>
<td>2.714</td>
</tr>
<tr>
<td>Education</td>
<td>2.856</td>
<td>2.466</td>
<td>2.722</td>
<td>2.881</td>
</tr>
<tr>
<td>Visual &amp; Perf. Arts</td>
<td>2.916</td>
<td>2.606</td>
<td>2.658</td>
<td>2.385</td>
</tr>
<tr>
<td>Liberal Arts &amp; Sciences</td>
<td>2.962</td>
<td>2.534</td>
<td>2.684</td>
<td>2.706</td>
</tr>
<tr>
<td>Professional Studies</td>
<td>2.946</td>
<td>2.714</td>
<td>2.688</td>
<td>3.041</td>
</tr>
<tr>
<td>Engineering &amp; Tech.</td>
<td>2.943</td>
<td>2.921</td>
<td>3.129</td>
<td>3.038</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residence Status:</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NIU Residence Halls</td>
<td>2.966</td>
<td>2.526</td>
<td>2.732</td>
<td>2.817</td>
</tr>
<tr>
<td>Commuting from Off-Campus</td>
<td>2.956</td>
<td>2.744</td>
<td>2.913</td>
<td>2.736</td>
</tr>
<tr>
<td>All Others</td>
<td>2.944</td>
<td>2.653</td>
<td>2.689</td>
<td>2.728</td>
</tr>
</tbody>
</table>
Longitudinal Grade-Point Averages for Junior Transfers
Fall 1989 – Spring 1991

<table>
<thead>
<tr>
<th>Cumulative Transfer GPA</th>
<th>NIU Current-term GPAs</th>
<th>Fall 1989</th>
<th>Spring 1990</th>
<th>Fall 1990</th>
<th>Spring 1991</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Juniors</td>
<td></td>
<td>3.099</td>
<td>2.764</td>
<td>2.890</td>
<td>2.939</td>
</tr>
<tr>
<td>IL 2-year Colleges</td>
<td></td>
<td>3.099</td>
<td>2.739</td>
<td>2.868</td>
<td>2.929</td>
</tr>
<tr>
<td>Other Colleges/Univ’s</td>
<td></td>
<td>3.103</td>
<td>2.971</td>
<td>3.073</td>
<td>3.026</td>
</tr>
</tbody>
</table>

ILLINOIS TWO-YEAR COLLEGES ONLY:

**Earned AA/AS Degree:**

- Earned Degree: 3.107
- Did Not Earn Degree: 3.064

**Gender:**

- Male: 3.101
- Female: 3.162

**Age Group:**

- 20 and younger: 3.116
- 21 to 24: 2.944
- 25 and older: 3.334

**Ethnicity:**

- Minority: 2.892
- Non-Minority: 3.112

**College of Major at NIU:**

- Business: 3.272
- Education: 2.999
- Visual & Perf. Arts: 3.142
- Liberal Arts & Sciences: 2.997
- Professional Studies: 3.240
- Engineering & Tech.: 2.817

**Residence Status:**

- NIU Residence Halls: 3.037
- Commuting from Off-Campus: 3.166
- All Others: 3.096
Transfer Grade-point Performance
Sophomore Transfers: IL 2-year and Other

<table>
<thead>
<tr>
<th>Fall 89</th>
<th>Spring 90</th>
<th>Fall 90</th>
<th>Spring 91</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.25</td>
<td>3.00</td>
<td>2.76</td>
<td>2.50</td>
</tr>
</tbody>
</table>

IL 2-year Other
Transfer Grade-point Performance
Junior Transfers: IL 2-year and Other

- IL 2-year
- Other
Transfer Grade-point Performance
Sophomore and Junior IL 2-year Transfers

Graph showing the grade-point performance of sophomores and juniors from Fall 89 to Spring 91. The graph indicates a decline in average grade-point from Fall 89 to Spring 90, followed by a recovery in Fall 90, and a slight decline in Spring 91.
Native/Transfer Grade-point Performance
Sophomores and Juniors

Transfers are IL 2-year only
Transfer Grade-point Performance
Junior IL 2-year Transfers: AA/AS or not

Graph showing grade-point performance from Fall 89 to Spring 91 for AA/AS holders and others.
Transfer Grade-point Performance
Sophomore IL 2-yr by Gender

Male  Female

Fall 89  Spring 90  Fall 90  Spring 91
Transfer Grade-point Performance
Junior IL 2-yr by Gender

<table>
<thead>
<tr>
<th></th>
<th>Fall 89</th>
<th>Spring 89</th>
<th>Fall 90</th>
<th>Spring 90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Grade-point Performance:
- Fall 89: 3.20
- Spring 89: 3.10
- Fall 90: 3.00
- Spring 91: 2.90

Legend:
- Male
- Female
Transfer Grade-point Performance
Sophomore IL 2-year Transfers by Age

- 20 & younger
- 21 to 24
- 25 & older
Transfer Grade-point Performance
Junior IL 2-year Transfers by Age

Transfer Fall 89
20 & younger  21 to 24  26 & older
Spring 90
Fall 90
Spring 91

3.00  3.25  3.50

2.75  3.00  3.25  3.50

2.50  3.00  3.25  3.50
Transfer Grade-point Performance
Sophomore IL 2-yr by Ethnicity

Minority --- Non-Minority

Fall 89  Spring 90  Fall 90  Spring 91

3.00  2.90  2.80  2.70  2.60  2.50  2.40

Transfer
Transfer Grade-point Performance
Soph. IL 2-yr by NIU College

Transfer Grade-point Performance
V&PA
LA&S
PRFS
BUSI
EDUC
ENGR
Transfer Grade-point Performance
Junior IL 2-yr by NIU College

Transfer Fall 89 Spring 90 Fall 90 Spring 91

BUSI EDUC V&PA LA&S PRFS ENGR
Transfer Grade-point Performance
Soph. IL 2-yr by Residence Status

NIU Dorm  Commuting  Other