To compare more validly the first semester GPA's of transfer students from junior colleges and 4-year institutions, this University of Missouri-Columbia study concentrated on establishing matched samples as the basis for such comparisons. Matching was based on total School and College Abilities Test (SCAT) scores, academic division entered, and sex. Thirty transfer students from each of the following schools made up the population from which random samples of 15 students each were drawn: (1) Kansas City Junior College District, (2) St. Louis Junior College District, (3) the University of Missouri-Kansas City, and (4) the University of Missouri-St. Louis. The first semester post-transfer mean GPA's of the combined junior college and university groups were compared, and a t-test of significance between correlated means applied. Differences were not significant at the previously specified .05 level. Based on this finding, it appears questionable that junior college transfers suffer significantly more from "transfer shock" than other transferees. Any differences between the two groups might reflect institutional grading practices more than any other variable. (JO)
A sizeable number of students transfer to the University of Missouri-Columbia (UMC) each semester from urban junior colleges and urban campuses of the University of Missouri in Kansas City and St. Louis.

There have been many studies of the effect that transferring from a junior college to a four-year institution has upon a student's first semester grade point average (GPA) after transfer. These studies began around 1910 and have increased as the junior college became more prevalent in the educational scene.

Hills (1965a) stated that almost none of the studies of the literature used a sophisticated technique to be certain that transfer students were being compared to native students of equal academic aptitude. Hills further stated that until local data have been gathered, one is wise to treat the transfer applicant as a risky venture and make special allowances.

As a part of this study, there was a special attempt made to use a sophisticated technique in matching the sample groups. Hopefully, this attempt has insured more equal academic aptitude and made it a more valid study even though it is not a transfer versus native student study.

An outcome of this study could be that it will lend itself to the gathering of the local data Hills refers to in order that transfers may be treated more as individuals and less like "risky ventures" by the
institution to which they have transferred.

A review of the literature revealed that transfer students from four-year institutions perform better academically than junior college transfers when comparing their first semester GPA's after transfer. (Hills, 1965b; Irvine, 1963; Willingham, 1961)

Irvine (1963) reported that, for undergraduate transfers to the University of Georgia, the university grade averages for 559 transferring from junior colleges turned out to be .3 letter grades lower than the university average of the 294 who transferred from four-year institutions.

Willingham (1961) studied nearly 1,000 students who transferred into Georgia Institute of Technology (Tech) from over 200 colleges between 1957 and 1961. He found that junior college transfers seen to suffer more severely from transfer shock at Tech than do transfers from four-year colleges.

These studies fostered the question of whether one would find the differences in the first semester GPA after transfer between students from junior colleges and universities if an attempt was made to control more of the variables which might affect the GPA.

The primary objective of this study was to attempt to answer the prior question as well as to provide useful data on the students from the institutions included within the study.

The null hypothesis tested was that there would be no significant difference in the UMC first semester GPA of students who transfer to UMC from junior college districts in the Kansas City-St. Louis areas compared to their matched counterparts transferring to UMC from the two urban campuses of Missouri University (The University of Missouri-St. Louis (UMSL) and The University of Missouri-Kansas City (UMKC)).
Procedure

A complete listing of the Fall, 1969 transfer students to UMC for purposes of this study was obtained from the data processing center at UMC.

The population selected for this study consisted of two groups:
1. The junior college group- A group of 30 students who transferred to UMC from the junior college districts of Kansas City and St. Louis. Fifteen students were randomly selected from lists from each area.
2. The university group- A group of 30 students who transferred to UMC from UMKC and UMSL, fifteen from each area, selected on the basis of how well they could be matched to their counterparts in the junior college group from the same metropolitan area.

Procedures used for matching the members of the university group to the members of the junior college group were in accordance with the following priorities:
1. School and College Abilities Test scores (total)
2. Division entered at UMC
3. Sex

These matching criteria were selected in an attempt to eliminate any biases arising from the use of the UMC first semester GPA as an indication of whether or not transferring from a junior college or university had any bearing upon the students academic achievement at UMC.

The first semester GPA's earned by the two groups at UMC were obtained from the admissions office and a comparison of the mean GPAs of the two groups made to determine whether there was a significant difference, at the .05 level, in their academic performance at UMC.
Results

A t-test for correlated means is presented in Table 1.

Table 1

T-test of significance between correlated means of the mean first semester GPA's at UMC of the junior college and university groups.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>X</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior college</td>
<td>30</td>
<td>2.30</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>30</td>
<td>2.45</td>
<td>1.40*</td>
</tr>
</tbody>
</table>

Standard error of difference = .198
*significant at the .05 level

The null hypothesis of no significant difference between the means of the two groups was accepted.

Discussion

The findings of this study would tend to support the premise that universities need to guard against stereotyping junior college transfers as risky ventures such as Hills (1965a) suggests they be treated.

The university group in this study averaged .15 of a grade point higher than the junior college group, which, though not a significant difference, is somewhat in keeping with the .3 grade point difference in the same direction as reported by Irvine (1963).

In light of these findings and the findings of Willingham (1961), one might wonder if the "transfer shock" which Willingham found more prevalent in the two-year group than the four-year group, could be a reflection of the difference in grading practices at the two kinds of institutions rather than any other inherent variable differences.
References

Hills, John R. Evaluating transfer applications. *College and University*, 1965, 40 (3), 241-249. (a)


Irvine, D. W. Mean cumulative averages and total hours earned for students transferring to the University of Georgia during the 1962-63 academic year (Athens, Ga.: Office of Admissions and Guidance Center, University of Georgia, 1963). (The *Journal of Experimental Education*, 1965, 33, 201-215.)
