This study is principally concerned with examining the upper-division academic achievement of "transfer" students (those who entered the UW from both the 2-year community colleges) and of "native" students (those who entered the UW directly from high school). Only students who, in Autumn 1968, had earned between 80 and 100 quarter credit hours (approximately junior level) were included in the above study groups. In general, the findings are as follows:

(1) Over a common 5-year period of possible upper division attendance, native students have a markedly higher UW graduation rate than have transfer students from either the 2-year or 4-year colleges; (2) When compared on upper division GPA earned between 1968 and 1971, native students significantly outperform 4-year transfer students, who, in turn, significantly outperform 2-year transfer students; (3) Among those who withdraw from upper-division programs, grades are very low for those dropping out early (most pronounced for transfer students) but quite adequate for those dropping out late, and (4) A supplemental analysis was conducted on native and transfer groups who, as of Autumn 1967, had previously earned between 35 and 55 quarter credit hours (approximate sophomore level). This analysis revealed the same achievement trends as observed for the junior-level groups (and therefore are not included in this report) except that the community college students fared relatively worse than the other comparison groups both in graduation rate and post-transfer grades. (Author)
Upper-Division Academic Performance of Native and Transfer Students at the University of Washington

IER-180

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Summary

This study is principally concerned with examining the upper-division academic achievement of "transfer" students (those who entered the UW from both the 2-year community colleges and the 4-year colleges) and of "native" students (those who entered the UW directly from high school). Only students who, in Autumn 1968, had earned between 80 and 100 quarter credit hours (approximately junior level) were included in the above study groups.

In general, the findings are as follows:

1. Over a common five-year period of possible upper-division attendance, native students have a markedly higher UW graduation rate than have transfer students from either the 2-year or 4-year colleges.

2. When compared on upper-division GPA earned between 1968 and 1971, native students significantly outperform 4-year transfer students who, in turn, significantly outperform 2-year transfer students. However, there is strong evidence that native students score highest on scholastic aptitude tests (Washington Pre-College Test), 4-year transfers next highest, and 2-year college transfers lowest. Therefore, if we statistically remove the influence of aptitude level differences among the three groups (conceptually, equate their aptitude levels), the upper-division achievement differences observed among the three study groups essentially disappear. Scholastic aptitude performance has a much more potent effect on UW upper-division achievement than does institutional origin.

3. Among those who withdraw from upper-division programs, grades are very low for those dropping out early (most pronounced for transfer students) but quite adequate for those dropping out late.

4. A supplemental analysis was conducted on native and transfer groups who, as of Autumn, 1967, had previously earned between 35 and 55 quarter credit hours (approximate sophomore level). This analysis revealed the same achievement trends as observed for the junior-level groups (and therefore are not included in this report) except that the community college students fared relatively worse than the other comparison groups both in graduation rate and post-transfer grades.
Introduction

Universities with large undergraduate degree programs are often concerned about the relative academic success rate of "transfer" students from two- and four-year institutions when compared with that of "native" students (those who entered the universities directly from high school). It is more than a curious research question since transfer students in recent years have become an increasing proportion of the total undergraduate student body (Trent and Medsker, 1968) at major universities.

Recent research suggests there are some real differences between native and transfer students in the degree of academic success attained and the several studies examined are generally uniform in their findings. Native or direct-entry freshmen consistently outperform both four-year and two-year transfers with the latter always taking last place (Anderson, 1972; Melnick, 1970; Webb, 1971; Wermers, 1972). Two-year transfer students are the most variable in performance (Wermers, 1972).

Pre-college educational measures such as high school grades and test scores are lowest for two-year transfers (Finnberg, 1960; Webb, 1971; Wermers, 1972). Native and four-year transfers graduate at higher rates than two-year transfers (Anderson, 1972; Hecker and Lezotte, 1969; Melnick, 1970; Webb, 1971). Grading standards in the community colleges are not so stringent as those in the senior institutions and consequently the post-transfer grade averages of two-year students remain below their pre-transfer averages (Webb, 1971). Meskill (1971), however, reports findings of "good performance of junior college transfers [including] a high rate of persistence..., and a low incidence of academic failure."

But what of the situation at the UW--are there unique educational factors operating in the local educational setting which suggest the foregoing research findings are not relevant to the UW? An early
study* conducted by the UW Office of Institutional Educational Research bears upon the question. The study reported that community college transfers to the UW received lower grades than their native counterparts in upper-division work but such transfers graduated at a somewhat higher rate than native students. However, there is a flaw in the study which makes the generalizations tenuous. Transfer students entering into the study were the successes of community college instructional programs (all had mastered lower-division curricula); the UW native students with whom they were compared included everyone from freshman year on. The two groups simply were not comparable for research purposes.

A new study was designed, as reported in this document, which identified comparable UW native and transfer groups whose progress on measures of upper-division academic performance could then be followed. The three groups chosen for study were 1) native students enrolled Autumn 1968 with 80-100 earned credits, 2) community college transfer students entering the UW in Autumn 1968 with 80-100 earned credits, and 3) four-year transfer students entering the UW in Autumn 1968 with 80-100 earned credits. The academic successes of these three groups, as measured by grades and graduations, were followed for the period Autumn 1968 through June, 1971, a period judged adequate to accomplish upper-division study for most students. Additional information on graduation rate up through June 1973 became available late in the study and is included in Fig. 1 for completeness.

Discussion

Rate of Graduation. On perhaps the most important success factor, rate of graduation from the University, native students are clearly superior to transfer students throughout the time period studied. (See Figure 1)

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It should be noted that these data indicate only graduation from the University of Washington. Possibly transfer students, more so than native students, may go to some other college or university to complete degrees.

Academic Performance Relationships. Figure 2 shows the change between prior lower-division grades and subsequent upper-division grades for native and transfer students. In all cases the native students show a greater performance increase than the transfers. Among those who withdrew, the community college transfers experienced the largest drop in grades. From the comparisons below, one might conclude that transfer students, especially those from 2-year colleges, found grading to be harder at the University.
### Figure 2

Comparisons between mean lower-division GPA on 90+10 credits prior to enrollment in Autumn, 1968, and mean subsequent upper-division GPA on credits earned between Autumn, 1968 and Spring, 1971

A more detailed look is given in Figure 3 at the grade performance of students graduating or withdrawing at various points in the time span of this study. For all three groups, those graduating earliest tended to have highest grades. Conversely, those withdrawing earliest tended to have lowest grades. This is especially pronounced for the transfer groups. Many of the latter might have elected more rewarding pursuits than study at the UW if better indicators of probable success had been available to them. Students withdrawing late in the study and the few still continuing at the end of Spring Quarter 1971 were drawing close in grade performance to those graduating late in the study period.
<table>
<thead>
<tr>
<th>GPA</th>
<th>Graduated</th>
<th>Withdrawn</th>
<th>Continuing</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5</td>
<td>69 70 70 71 71 71</td>
<td>68 69 69 70 70 71 71</td>
<td>71</td>
</tr>
</tbody>
</table>

**Figure 3**

Mean cumulative upper-division GPA at time of graduation or withdrawal for those enrolling Autumn, 1968 with 90+10 credits.

A further analysis was made to see what effects were produced by various levels of prior lower-division GPA on subsequent upper-division grade performance and on graduation rate, with the results tabulated below:
Table 1
Upper-Division Grade Performance and Graduation Rate
by Level of Prior Lower-Division GPA
(for students enrolling in Autumn, 1968 with 90 + 10 credits)

<table>
<thead>
<tr>
<th>Prior Lower Division GPA</th>
<th>Number of Cases</th>
<th>Mean Upper Division GPA</th>
<th>Percent graduated by June, 1971 (up to 5 yrs of possible college attendance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.55 - 4.0</td>
<td>72 22 42</td>
<td>3.68 3.43 3.31</td>
<td>88% 64% 71%</td>
</tr>
<tr>
<td>3.25 - 3.54</td>
<td>151 43 70</td>
<td>3.45 3.26 3.02</td>
<td>80% 58% 74%</td>
</tr>
<tr>
<td>2.95 - 3.24</td>
<td>240 66 103</td>
<td>3.25 2.96 2.75</td>
<td>77% 64% 62%</td>
</tr>
<tr>
<td>2.65 - 2.94</td>
<td>380 85 140</td>
<td>3.08 2.69 2.59</td>
<td>72% 51% 66%</td>
</tr>
<tr>
<td>2.35 - 2.64</td>
<td>413 70 167</td>
<td>2.88 2.69 2.42</td>
<td>72% 56% 50%</td>
</tr>
<tr>
<td>2.05 - 2.34</td>
<td>402 57 152</td>
<td>2.58 2.45 2.27</td>
<td>61% 40% 50%</td>
</tr>
<tr>
<td>0.0 - 2.04</td>
<td>150 15 57</td>
<td>2.59 2.46 2.00</td>
<td>61% 20% 30%</td>
</tr>
<tr>
<td>Total</td>
<td>1,808 358 731</td>
<td>2.96 2.81 2.54</td>
<td>71% 53% 57%</td>
</tr>
</tbody>
</table>

The mean overall upper-division GPA for all students combined was 2.84. The points above which students could reasonably expect to do as well as, or better than, the average in upper division studies, are shown by the double underlines. Table 1 might also be used to predict the most probable GPA in upper-division work (or probability of graduating) for native or transfer students with any given level of prior lower-division grades who expect to matriculate as a junior at the University.

Variability in undergraduate achievement (as measured by grades) has been traditionally linked to variability in academic aptitude (as measured by standard college entrance tests). It is instructive to compare achievement differences apparent in Table 1 among native and transfer groups with the results of a special study performed on samples drawn from these groups.
given that the study was concerned with examining the relationship between upper-division achievement and grade prediction scores from the Washington Pre-College Testing Program.

A research design* was selected to examine the achievement differences among the three student groups in conjunction with available information about academic aptitude differences (predicted achievement).

Table 2
Mean cumulative GPA's in upper division coursework, by level of ability

<table>
<thead>
<tr>
<th>WPCTP Prediction Scores</th>
<th>Native (N)</th>
<th>4-Year Transfer (N)</th>
<th>2-Year Transfer (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2.6-4.0) High</td>
<td>3.05 (99)</td>
<td>3.04 (80)</td>
<td>2.92 (26)</td>
</tr>
<tr>
<td>(2.3-2.5) Medium</td>
<td>2.70 (51)</td>
<td>2.66 (46)</td>
<td>2.48 (54)</td>
</tr>
<tr>
<td>(0.0-2.2) Low</td>
<td>2.68 (40)</td>
<td>2.38 (64)</td>
<td>2.36 (110)</td>
</tr>
<tr>
<td>Overall Mean</td>
<td>2.88 (190)</td>
<td>2.72 (190)</td>
<td>2.47 (190)</td>
</tr>
</tbody>
</table>

It is clear that the overall GPA means for the three sample groups (Table 2) identify natives as better achievers than 4-year transfers who, in turn, are better achievers than 2-year transfers. These mean differences are beyond chance levels; they are statistically significant. But a look at the numbers in the various groups shows that a majority (99) of the native students are in the high level, that conversely a majority (110) of the transfer students from 2-year colleges are in the low level, and the 4-year transfers are distributed more evenly across all levels. Is it the clustering of students within different aptitude levels that leads to the overall group differences, or rather the accident of students having begun their

*Analyses of variance and covariance as discussed, for example, in C. M. Dayton, 1970.
college careers at different types of institutions? The research design chosen provides a tentative answer. If one statistically removes the influence of aptitude level differences upon the overall group means (conceptually, equates the three groups for aptitude level), then the residual differences in overall achievement means are so small that they must be interpreted as chance deviations. In short, it is the difference in group aptitude levels which leads to the observed achievement differences among the three types of institutions, and apparently it is more important to know a student's scholastic aptitude score than his/her institutional origin in forecasting upper-division achievement at the UW.
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