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AUTHOR Armstrong, William B.  
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## ABSTRACT

A study was performed to test the association between the proportion of liberal arts course offerings and institutional transfer rate by merging the data on liberal arts offerings in the community colleges included in the 1991 National Community College Curriculum Study with the transfer rate data for these same colleges obtained from their participation in the 1992 Transfer Assembly. Data were matched for 52 colleges from around the country that had participated in both studies, and two analyses were performed. First, sample means were derived for both the transfer and liberal arts offerings ratios, with colleges being placed in low or high categories. This analysis indicated that for those community colleges with low transfer rates (i.e., below the sample mean), approximately 69% were also below the mean for the proportion of liberal arts offerings in the college, while 31.4% were above the sample mean. Similarly, for those colleges with high transfer rates, approximately 63% were high in liberal arts offerings, while 38% were classified as low. Second, a correlation analysis was performed to determine if variance in observed transfer rates could be explained by variance in the percent of liberal arts offerings. Results of this analysis indicated that while several variables are positively related to transfer rate, only the percent of liberal arts variable is related at a significant level. Although the percent of liberal arts course offerings at the colleges in the sample appear to be positively related to transfer rates, there are probably several other factors not specified that would probably explain greater variance in transfer than merely the proportion of liberal arts offerings. Data tables and 11 references are included. (MAB)

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Analyzing the Relation between Curricular Composition and Transfer Rates in the Community Colleges

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# ANALYZING THE RELATION BETWEEN CURRICULAR COMPOSITION AND TRANSFER RATES IN THE COMMUNITY COLLEGES

Prepared for the 1993 Association for Institutional Research Forum  
by William B. Armstrong of the  
Center for the Study of Community Colleges and the  
San Diego Community College District

## EXECUTIVE SUMMARY

### Introduction and Research Question

*Those community colleges with a full range of liberal arts offerings may be expected to record higher transfer rates than colleges with weaker transfer offerings (Palmer & Eaton, 1991, p. 46)*

Some analysts and policymakers have expressed concern that traditional academic values as exemplified by an emphasis in the liberal arts; history, mathematics, and language, are being neglected (Cohen & Brawer, 1987; Palmer & Eaton, 1991) and that this neglect is directly related to declines in transfer among community college students. The above quote from Palmer & Eaton posits a relationship between transfer and the liberal arts, and suggests a fundamental question: How has the decline in the collegiate function as defined by the liberal arts offerings in the colleges affected transfer? and, if there is a relationship between transfer rates and the liberal arts, should that be the primary reason for maintaining the liberal arts and sciences in the two year colleges or do the liberal arts stand on their own as a viable and necessary part of the general education curriculum? Because of this hypothesized and largely untested association of the liberal arts to transfer, these questions merit examination. This study is concerned with examining the transfer issue from a curricular perspective. Specifically, what relation, if any, exists between the proportion of liberal arts course offerings in the community colleges and the institutional transfer rate?

### Background

Recent concerns regarding declining academic and transfer indicators from the community colleges has sparked renewed interest on the part of legislators, policymakers, policy groups,

educators, and researchers in the collegiate function of the comprehensive community college. This reflects growing concern that with the decline in traditional academic disciplines, diminished course sequencing and academic progress requirements, growth in "vocationalism" (Grubb, 1991) and student "consumerism" (Cohen & Brawer, 1982) has come a decline in transfer. To many analysts, this traditional and vital link, both symbolic and real, of the two-year colleges to the universities has become more tenuous.

### **Factors Affecting Transfer**

Knoell (1982) and Lombardi (1979) identified and discussed several factors which explain the growth or decline of transfer. Factors cited include the pressure of four year institutions to improve access and outcomes for historically under-represented students, the declining economic value of a college degree, and an attitude on the part of the public that higher education has little value for many people now attending college. Related to these are changes in student demographics and declines in academic preparation, the rise in student consumerism in the colleges, the decline of rigid course-taking patterns, student intentions, the tracking of the liberal arts and vocational students, and the "all things to all people" approach of the community colleges. Other factors thought to affect transfer include the projection of declining enrollments leading to unused space in four-year institutions, the addition of remedial programs in the universities, and the responsiveness of these institutions to increased student interest in preparation for employment after graduation.

The strength of the liberal arts curriculum has also been cited as an influence on transfer activities (Palmer & Eaton, 1991; Greenfield, 1988; Watkins, 1989). Here it is argued that the decline in transfer can be linked to the general decline of the collegiate function of the community colleges, specifically, the liberal arts. Some analysts have suggested that the gradual disintegration of the liberal arts in the community colleges have contributed to a hollow core of distribution requirements at many of the nation's community colleges. Although often cited as

one of the most damaging of the “thousand cuts” to the transfer decline (Crubb, 1991), empirically establishing this relationship has been problematic.

### **Transfer and the Liberal Arts: Examining the relationship**

To test the association between the proportion of liberal arts and transfer rates, data on liberal arts offerings in community colleges included in the National Community College Curriculum Study (CSCC, 1991) were merged with transfer rate data for these same colleges obtained from their participation in the 1992 Transfer Assembly (Cohen, 1991). Comparison of the two databases indicated that 52 colleges participated in both studies and each had valid data for both the liberal arts and transfer rates. The aggregated data from these colleges were then used to test the hypothesis of a relation between community college transfer rates and the proportion of liberal arts course offerings.

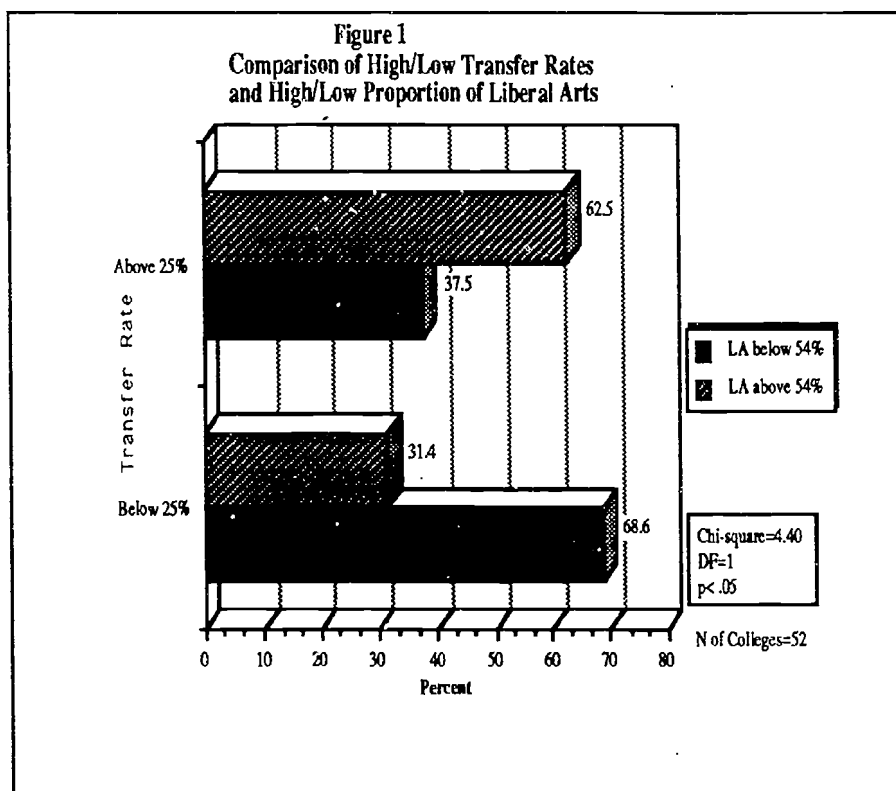
### **The Sample**

The sample includes 52 colleges from around the country, with the largest proportion from California, Texas, and Illinois. Approximately one-third are from California, 15% from Texas, 10% from Illinois, 10% from the Southeast (North Carolina, South Carolina, Georgia, Kentucky, and Florida), 5% from the midwest, while the remainder are from the Middle Atlantic and Northeast.

For purposes of this study, courses designated as English as-a-Second Language (ESL) were removed from the curriculum database. Although in past years ESL was included by the CSCC in the foreign languages category (Cohen & Brawer, 1987), and thus included in the liberal arts calculations, it was removed here to better focus the study results on the more “traditional” liberal arts areas such as sciences, humanities, history, etc.

## Method and Analysis

To test the hypothesis of a relation between the proportion of liberal arts courses and transfer rates, two analyses were conducted. The first involved a re-categorization of both the transfer and liberal arts ratios into high and low categories. Sample means for both ratios were derived and colleges with transfer rates below the mean of 25% were placed in the low category while colleges with transfer rates at or above the mean were placed in the high category. Similarly, colleges with liberal arts ratios at or above the mean of 54% were placed in the high category, those below 54% were placed in the low category. These categories were crosstabulated using the Statistical Package for the Social Sciences (SPSS) and a Chi-square ratio obtained. The results of this analysis are presented in Figure 1 below.



Among those community colleges with transfer rates below the sample mean (less than 25%), approximately 69% were also below the mean for the proportion of liberal arts offerings in the college, while approximately 31.4% were above the sample mean of 53%. Among those colleges with a transfer rate classified as

“high,” approximately 38% were low in liberal arts and approximately 63% were high in liberal arts offerings. The Chi-square test of independence suggests a statistically significant relation between the two categories ( $\chi^2=4.38$ ;  $DF=1$ ;  $p<.05$ ). Analysis of the Chi-square residuals

indicates that colleges with below-average liberal arts ratios also have disproportionately low transfer rates, while colleges above the mean liberal arts ratio tend to have higher transfer rates.

### Are the Liberal Arts Related to Transfer Rates?

A second analysis was conducted to determine if variance in observed transfer rates could be explained by variance in the percent of liberal arts offerings. A correlational analysis was conducted to test this hypothesis using the college transfer rate as the dependent variable and proportion of liberal arts courses, liberal arts courses recoded into dummy variables for size (Size: Small, Size: Medium, and Size: Large) and by level (remedial, standard, and advanced). These data were analyzed using the SPSS Correlation procedure and a one-tail test of significance was performed. The results of this analysis are presented in table 3.

Table 2

#### Correlation Matrix

	Transfer Rate	% Liberal Arts	% Remedial	% Standard	% Advanced	Size: Small	Size: Medium	Size: Large	% Non-white
Transfer Rate	1.000	*.345	-.159	.056	.041	-.088	.108	-.058	-.191
% Liberal Arts	*.345	1.000	-.139	.160	-.095	-.250	-.173	.305	.115
% Remedial	-.159	-.139	1.000	-.541	-.038	.100	.174	-.223	.050
% Standard	.056	.160	-.541	1.000	-.820	.036	-.147	.124	.076
% Advanced	.041	-.095	-.038	-.820	1.000	-.111	.057	.005	-.124
Size: Small	-.088	-.250	.100	.036	-.111	1.000	-.231	-.319	-.172
Size: Medium	.108	-.173	.174	-.147	.057	-.231	1.000	-.848	-.270
Size: Large	-.058	.305	-.223	.124	.005	*-.319	**-.848	1.000	*.356
% Non-white	-.191	.115	.050	.076	-.124	-.172	-.270	.356	1.000

\* Significant at .05 (one-tail)

\*\* Significant at .01 (one-tail)

## Correlation Analysis

The results of the correlation analysis indicate that while several variables are positively related to transfer rate, only the percent of liberal arts variable is related at the .05 level. Although the percent of liberal arts course offerings at the colleges in the sample appear to be positively related to transfer rates, there are probably several other factors not specified that would probably explain greater variance in transfer than merely the proportion of liberal arts offerings alone.

## Summary and Implications

Although the findings here are tentative, they do lend support to those who have argued that transfer rates are related to variance in liberal arts offerings. However, these findings should be interpreted with caution. Although it may be the case that differences in liberal arts ratios at certain colleges are related to variances in transfer rates, other research cited earlier in this paper suggest that there are several other factors that help to explain variance in transfer rates among colleges. The present study may prove to be useful in generating additional hypotheses and questions regarding the relation between transfer rates and the percent of liberal arts in the curriculum. Moreover, this analysis is also strengthened by the use of a consistent transfer indicator to determine transfer rates for colleges in several states and of varying sizes. Future analyses might ask the following questions: What liberal arts disciplines are positively related to transfer rates? Does the proportion of science, mathematics, or English courses affect the observed relation? Does the proportion of courses at various levels (remedial, freshman, sophomore) available at the college in affect the transfer rate? Data from the Community College Curriculum study could be used as part of a model seeking to explain variance in transfer using institutional, organizational, contextual, and student input variables as factors in helping to better understand the environment that improves transfer.



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