This study examines the transferability of non-liberal arts courses within public postsecondary education in the state of California. The research examines the percentages of courses in the non-liberal arts categories that transfer from the community colleges to the state's public four-year institutions. This study also compares results with a similar study conducted in 1991. Twenty-six community colleges in California were selected. Using course catalogues and class schedules, course transferability was determined and marked next to course listings. Based on the analysis, different patterns of transferability were found with respect to the University of California (UC) System and California State University (CSU) System. Without exception, more of the community college courses transfer to the CSU (72.6% overall) than to the UC (26.7% overall). Findings show that the gap between the UC and CSU regarding the transferability of non-liberal arts courses has widened since 1991, from 32.8% to 46.9%. During this time period, the transferability of most of the subject areas to UC remained stable, while transferability in subject all areas, with the exception of "personal skills and avocational" courses, increased to the CSU. Contains 16 references. (JGL)
Vertical Transfer: An Examination of Course Transferability in the Non-Liberal Arts in California

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Vertical Transfer: An Examination of Course Transferability in the Non-Liberal Arts in California

Many students begin their educational trajectories at a community college. They enter for a variety of reasons and their objectives cover the gamut. For these students, a community college will serve as a route towards the baccalaureate degree. However, to reach the destination of the four-year institution, these students must often overcome a variety of obstacles.

From the beginning, American community colleges have promulgated transfer as their fundamental purpose in higher education. Currently, Cohen and Brawer (1996a, 1996b), based on an eight year study of transfer rates, have found national community college transfer rates hovering around 22 percent. Hence, effective methods of increasing the transfer rates of community college students have remained a profound topic of concern for those interested in higher education.

For the purpose of this research, the definition of vertical transfer describes the movement of a student from a community college to a four-year institution. In addition, transferability indicates courses that are taken at a two-year college and accepted for credit at a four-year institution. Finally, according to Kintzer, articulation refers to the "totality of services for students transferring throughout higher education, and transfer depicts the formulas developed to exchange credits, courses, and curriculums" (as cited in Tobolowsky, 1998).

According to Grubb (1991), a large number of community college students aspire to a baccalaureate degree. Based on current research, the majority of two-year college
students who seek to transfer will apply to a nearby baccalaureate granting institution (Bender, 1994). Moreover, increasing numbers of students are looking to community colleges for their first one to two years of education before they transfer to a four-year institution. Almost half of all first-time freshman begin their studies at a two-year college (Creech, 1995). They have numerous reasons: to save on tuition costs and living expenses, to stay working at their current job, to remain in their local communities, and eventually, to work their way into a four-year institution and obtain a baccalaureate.

Grubb (1991) also notes that one of the principal concerns of community colleges and policy makers is the strengthening of the transfer function. The extent to which courses transfer from a community college to four-year institutions continues to resonate as one of the most prevalent issues in higher education. Many students who begin their journey towards the baccalaureate at a community college must weave their way through a tangled web in order to make the transition to a four-year institution. They must ensure that the courses they have taken at the community college are acceptable for credit at the four-year institution or else, retake a similar course, often more than one, just to meet the requirements for graduation at the new college or university (Creech, 1995).

Although articulation agreements attest to the importance of transferability, Cohen and Brawer (1996a) remark that four-year institutions continue to dominate this process—these institutions dictate what they will accept for transfer and when they suddenly alter their graduation requirements, community colleges must respond in their own curricula. To avoid penalizing students who begin their education at a community college, state systems of higher education frequently have articulation policies in place.
between the community colleges and four-year institutions. This is done in an effort to maintain course equivalencies throughout students' educational trajectories.

Course transferability within the liberal arts is generally acceptable as universities award credit for nearly all science, social science, and humanities courses taken at community colleges. However, the rest of the curricula—technical, trade, and vocational courses—do not transfer as readily. The general purpose of this research is to add to the existing knowledge of California's transfer and articulation policies by specifically focusing on course by course transferability in the non-liberal arts. This study concentrates on three institutions of higher education in the state of California—the California Community Colleges, the California State University (CSU) System, and the University of California (UC) System—and amalgamates around the issue of transfer.

Background of Literature

An important test of the acceptability of community colleges within the overall scheme of higher education rests on the issue of transfer, namely, the ability of students to transfer to four-year institutions and compete as equals with those who began at a four-year college or university (Grubb, 1991). According to Cuseo (199x), the number of vertical transfers is increasing and compared to four-year colleges and universities, student enrollment at community colleges is increasing at a much faster rate.

However, for over twenty-five years, students of community colleges have lamented the decline in quality and quantity of community college transfers to four-year institutions (Prager, 1993). Even circa 1979, scholars in higher education, such as Lombardi (1979), perceived the decline of transfer education as one of the most
significant changes in the community college. Remarkably, the community college was originally designed to serve as an institution that some people hoped would allow universities to forego lower-division course offerings as the community colleges would take on that role. Nevertheless, with the exception of a few cases, this idea did not come to fruition.

In a study conducted by Glass and Bunn (1998), it was found that over half (56.8%) of their respondents felt the loss of credit was a problem when asked to describe barriers or obstacles to transfer. Moreover, they found that 63.4% of the students in the study had to complete more than 72 credit hours at the senior institution after transferring. In the hopes of addressing such concerns, many programs and ideas have been developed to improve the articulation between two- and four-year institutions.

Addressing the Issue

Cohen and Brawer (1996b) conducted a study and found that in some cases, high transfer rate community colleges as opposed to low transfer rate community colleges had a common course numbering system. In addition, articulation agreements as well as common course numberings emerged as the most important policies affecting transfer with respect to both aforementioned groups. As part of the study, respondents were asked what would enhance their chances of transferring to a four-year institution. In large part, students at the low transfer rate colleges offered the following suggestion: mitigate the reluctance of four-year institutions when accepting community college
courses for transfer. Furthermore, these same students believed that if an articulation agreement has been established, then a student should be able to transfer without reprisal from faculty at the new institution.

Based on visits to numerous community colleges, Cohen and Brawer (1996a) found that although a state may lack requirements for common course numberings or articulation, state policies in themselves do not encroach upon student transfer. Moreover, the usefulness of articulation agreements notwithstanding, transfer rates are only slightly affected. In addition, the researchers suggest that states presently lacking common course numberings seriously consider such systems, as they are critical factors in facilitating student transfer.

In addition, Cuseo (199x) proposes institutions recognize and remove "artificial barriers" in order to improve successful transfer, most specifically, curricular barriers and non-adherence to articulation agreements by the four-year colleges or universities. Curricular barriers, such as confusion regarding the transferability of courses from community colleges to four-year institutions, are due to community colleges' diverse missions. Diverse missions often necessitate that these colleges offer myriad courses to serve their clientele. Problems arise when many of these courses may not transfer to four-year institutions because the courses are vocational, technical, continuing education, or for personal enrichment. Moreover, curricular rigidity, a difficulty perpetuated by four-year institutions, occurs when they refuse to accept transfer courses other than those that are nearly identical to their own. Likewise, curricular changes made by the four-year institutions can lead to problems when these changes are not
communicated to the two-year institutions and when these changes are made without considering future implications for incoming transfer students.

To enhance the transferability of individual courses, Cuseo (199x) has also found that the development of articulation agreements can best be accomplished through the collaboration of community colleges and four-year institutions. Often, this is a more effective means than involving state higher education authorities. Cuseo (199x) offers an alternate to the traditional articulation agreement. He would like to see more institutions adopting transfer admission agreements TAGS or transfer admission programs TAPS. These are contracts whereby both two-year and four-year institutions stipulate that if a transferring student completes a defined general-education course program with an acceptable GPA at the two-year college then that student will be automatically matriculated into the four-year institution as an upper-division student. Furthermore, all of the general education courses taken at the two-year college will transfer in a “block” to the four-year college or university.

The State of California

Historically, matters of articulation and transfer between two- and four-year colleges in California were seen as an institutional concern rather than a concern of the state (Bender, 1994). However, in 1960, the California Master Plan Survey Team indicated a need to tighten transfer procedures to both the Cal State University and the University of California from the two-year colleges. At the time, it was best thought that this procedure be undertaken through a coordinating agency (Master Plan Survey Team, 1960).
Presently, the California Postsecondary Education Commission, an instrumental body in maintaining public, legislative, and institutional visibility and attention on transfer and articulation, has played an important role by promoting the transfer function among the public segments and independent institutions of California (Bender, 1994). As such, the Commission has been shifting towards a position of guidance and consequently, the California Community Colleges and University of California have established a mutual goal to increase the enrollment of vertical transfers from 10,900 in 1995-6 to 14,500 or more by 2005-6—an increase of approximately 33% (California’s Chancellor’s Office, 1999).

The California’s Chancellor’s Consultation Council (1997) holds that California is cognizant that their state’s educational process is not discrete, but rather, it falls along a continuum. Moreover, Bender (1994) asserts that California is one of the most active states regarding the general education transfer curriculum since providing accessibility to the baccalaureate degree is paramount. Hence, according to California’s Chancellor’s Office (1999), California recognizes the need for enhanced student transfer from community colleges to public four-year institutions.

One way in which California attempts to enhance student transfer is through the Intersegmental General Education Transfer Curriculum (IGETC). The IGETC is a means by which students can transfer from a community college to a CSU or UC without the need to take additional lower-division general education courses following transfer (Glendale Community College, 1998). Of course, the IGETC is not required to transfer,
nor is it the only way a student can fulfill the lower-division, general education requirements. In addition, the California State University offers a list of general education course requirements that can be used as a guide for students who are interested in transferring to a CSU. Another way that California attempts to establish major articulation agreements is through the California Articulation Number System (CAN), a system of common course identifiers that are assigned to similar (articulated) courses across various segments of the curriculum (California’s Chancellor’s Office, 1999).

Objective

For this study, the state of California was chosen because of its carefully delineated tri-partite structure of public postsecondary education. Course transferability in California is fairly straightforward; community colleges are mandated to list which courses transfer to either the University of California System or the California State University System. In other states, however, difficulty exists when trying to determine whether credits will be accepted and/or how credit will be awarded by the four-year institutions; this determination often requires more than just the perusal of course catalogs and schedules of classes.

While it is known which courses transfer from a California community college to the California State University System and/or the University of California System, little is understood about what transfers in the non-liberal arts. What this study attempts to do is move beyond previous research to further the understanding of California’s transfer curriculum, specifically, the transferability of California non-liberal arts courses.
This research examines the percentages of courses that transfer to the state’s public four-year institutions and fall into non-liberal arts categories. Furthermore, this study compares results with a similar study conducted in 1991.

Methodology

Sample

Twenty-six community colleges in California were selected because of their inclusion in the Center for the Study of Community Colleges 1998 Curriculum Project. The colleges range from small to large, according to enrollment. The sample included one small college (< 2748), three medium colleges (≥ 2749, ≤ 6141), and twenty-two large colleges (≥ 6142).

Procedure

Both course catalogs and class schedules were obtained from each college in the sample. For most of the community colleges in the sample, course transferability was indicated in the colleges’ class schedule next to each course listing. Subsequently, each class offering was coded according to the 1998 Curriculum Project coding scheme. The class schedules examined and the courses offered in each category were tallied according to the area of study under which they fell.

Results and Discussion

Based on an analysis of 26 colleges, it was found that very different patterns of transferability exist in the non-liberal arts in California with respect to the University of California System and California State University System. Not surprisingly, Table 1
Table 1. Transferability of California Non-Liberal Arts Courses

<table>
<thead>
<tr>
<th>Transfer Subject Area</th>
<th>CSU</th>
<th>UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>88.4%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Business and Office</td>
<td>73.3</td>
<td>28.9</td>
</tr>
<tr>
<td>Marketing and Distribution</td>
<td>86.5</td>
<td>0</td>
</tr>
<tr>
<td>Health</td>
<td>67.7</td>
<td>24.1</td>
</tr>
<tr>
<td>Family and Consumer Studies(a)</td>
<td>N.A.(a)</td>
<td>N.A.(a)</td>
</tr>
<tr>
<td>Technical Education</td>
<td>71.0</td>
<td>4.8</td>
</tr>
<tr>
<td>Engineering and Science Technology</td>
<td>74.3</td>
<td>2.1</td>
</tr>
<tr>
<td>Trade and Industry</td>
<td>57.7</td>
<td>3.3</td>
</tr>
<tr>
<td>Personal Skills and Avocational</td>
<td>84.4</td>
<td>74.1</td>
</tr>
<tr>
<td>Education</td>
<td>82.4</td>
<td>9.1</td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>72.7</td>
<td>14.2</td>
</tr>
<tr>
<td>Other</td>
<td>83.3</td>
<td>2.2</td>
</tr>
<tr>
<td>Internships/Practicums</td>
<td>68.6</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Overall Transferability 72.6% 26.7%

Source: Center for the Study of Community Colleges, 1998 Curriculum Project.
Note: N = 26 colleges.
\(a\) Area eliminated. Cooking/home economics courses categorized under Personal Skills and Avocational.

indicates a marked variance between the two systems. Without exception, more of California’s community college courses in the non-liberal arts transfer to the California State University System than to the University of California System. Within the University of California System, the only courses that transferred in high numbers were in the area of Personal Skills and Avocational (74.1 percent). The transferability of physical education courses tends to be largely responsible for the high percentage in this subject area.

Table 2 compares the 1991 study of the transferability of non-liberal arts courses in California with the 1998 study. For the 1991 study, Cohen and Ignash (1994) used 30
Table 2. Comparing the Transferability of California Non-Liberal Arts Courses with the 1991 Study (Cohen & Ignash, 1994)

<table>
<thead>
<tr>
<th>Transfer Subject Area</th>
<th>CSU</th>
<th>UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>64.5%</td>
<td>88.4%</td>
</tr>
<tr>
<td>Business and Office</td>
<td>61.0</td>
<td>73.3</td>
</tr>
<tr>
<td>Marketing and Distribution</td>
<td>70.3</td>
<td>86.5</td>
</tr>
<tr>
<td>Health</td>
<td>54.3</td>
<td>67.7</td>
</tr>
<tr>
<td>Home Economics&lt;sup&gt;a&lt;/sup&gt;</td>
<td>47.1</td>
<td>N.A.&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Technical Education&lt;sup&gt;b&lt;/sup&gt;</td>
<td>52.8</td>
<td>N.A.&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Engineering and Technology</td>
<td>62.6</td>
<td>74.3</td>
</tr>
<tr>
<td>Trade and Industry</td>
<td>35.7</td>
<td>57.7</td>
</tr>
<tr>
<td>Personal Skills and Avocation</td>
<td>88.0</td>
<td>84.4</td>
</tr>
<tr>
<td>Education</td>
<td>70.6</td>
<td>82.4</td>
</tr>
</tbody>
</table>

Overall Transferability          | 61.7% | 72.6% | 17.7%        | 28.9% | 26.7% | -7.6%   |

<sup>a</sup> For the 1998 study, Home Economics was collapsed into the Personal Skills and Avocational subject area.
<sup>b</sup> For the 1991 study, the subject area of Technical Education included Criminal Justice; however, for the 1998 study, Criminal Justice warranted an area of its own (see Table 1).

colleges for the analysis and encountered similar patterns of transferability in the non-liberal arts. The most notable change in transferability occurred in the subject area of **Agriculture**. Within the California State University System, this area revealed an increase of 37.1 percent while the University of California System revealed a decrease of 75.2 percent. For the University of California System, the decrease of 100 percent in the area of Marketing and Distribution is only an aberration; in 1991 only 1.6 percent of these courses were accepted for transfer and in 1998 no courses were transferable to this System.
Currently, of the non-liberal arts, 72.6 percent transfer to the California State University System and 26.7 percent transfer to the University of California System from California's community colleges. In 1991, the difference between the two Systems was similar with 61.7 percent of the non-liberal arts courses transferring to the California State University System and 28.9 percent transferring to the University of California System. For the California State University System and the University of California System, an increase of 17.7 percent and a decrease of 7.6 percent, respectively, was found in the transferability of non-liberal arts courses when comparing the 1991 and 1998 studies.

Interestingly, for the University of California System, most of the subject areas remained stable from 1991 to 1998 and only fair increases or decreases were observed. However, in the California State University System, the percent change from 1991 to 1998 was more pronounced. With the exception of Personal Skills and Avocational, all of the subject areas experienced an increase in transferability in the non-liberal arts.

Conclusion

Based on the figures from 1991 and 1998, the gap has widened between the California State University System and the University of California System regarding the transferability of non-liberal arts courses. The major reason for the disparity lies in the subject areas of Business and Office, Marketing and Distribution, Technical Education, and Engineering Technology. Here, the California State University System overwhelmingly accepts more of these courses for transfer than does the University of
California System because of course, the former has more baccalaureate degree-granting programs in business and technologies, which more closely resemble those emphasized at community colleges. With only two years of data to compare the transferability of California's non-liberal arts, it is difficult to term these changes "trends." Perhaps another study of this sort should be done in a few years for only time will tell if these changes/trends will continue in California's postsecondary education system.
References


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