

**A Study of the Role of Community Colleges
In the Achievement of the Bachelor's Degree
in Washington State**

Results of the Spring 1988 Bachelor's Degree Survey

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INTRODUCTION

One of the major missions of Washington community colleges is to provide effective transfer education. Available data on the number of community college students moving each year to four-year institutions do not fully detail the community college role in transfer nor do the data describe how well community colleges perform the transfer mission.

The State Board for Community College Education (SBCCE) undertook this study to determine how effectively community colleges perform the transfer mission. The purposes of this study were to provide the first complete picture of the role community colleges play in the completion of the bachelor's degree and to provide feedback from students on the effectiveness of transfer preparation at the community colleges.

To gather information about the role and effectiveness of community college transfer education, the SBCCE conducted a survey of students who were about to receive their first bachelor's degree in the spring of 1988. Telephone interviews were conducted with 565 students scheduled to graduate. Those interviewed provide a representative sample of those who transferred from community colleges, those who transferred from four-year to four-year institutions and four-year natives, those who took all their courses at one college.

This report begins with a summary of the key findings and conclusion. Details of the study design follow. The rest of the report consists of the analyses which lead to the findings and conclusions.

Thanks are due to the committee members who assisted with the study design and review of the final report listed in Appendix D and to the SBCCE staff who assisted with the research and the report: Loretta Seppanen, Amy Boatright, Sherie Story, Bob Wark, Dave Habura, Sandy May, Jim Julius, and Dick Barclay.

SUMMARY OF FINDINGS AND CONCLUSIONS

Findings

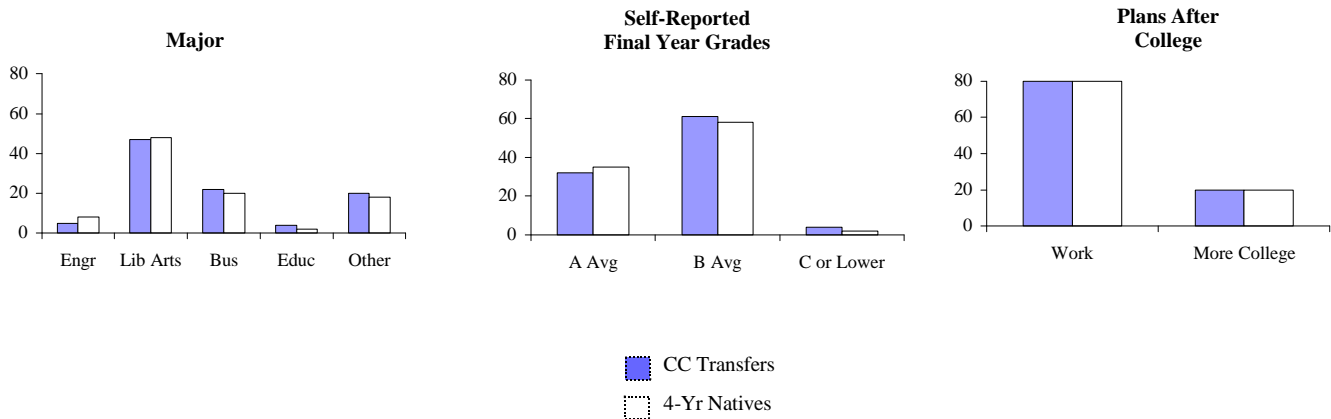
What percentage of those receiving their first bachelor’s degree have transferred Washington community college credits?

- Among bachelor’s degree recipients at public regional institutions, about 48 percent were students who transferred credits from a Washington community college. About 29 percent of the graduates at public research universities and 22 percent at independent colleges transferred community college credits. About 94 percent of those transfers had completed 45 or more credits at a community college and the majority (79 percent) had completed the associate degree or 90 credits.
- Most of the transfer activity in Washington (62 percent) was between community colleges and four-year institutions. About 38 percent of transfers within the state were from four-year to four-year institutions.

Are there important differences between students who start at community colleges and students who start at four-year colleges?

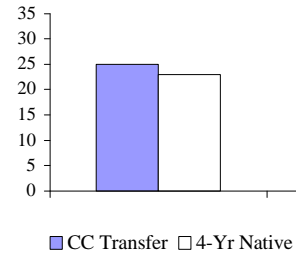
- Community college transfers completed their bachelor’s degree with the same majors, final year grades, and plans for the future as four-year natives, those who took all of their course work at a single institution (Figure 1).

Figure 1



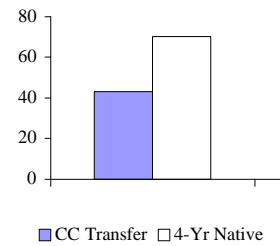
- While the community college transfers and four-year natives had similar grades, majors and goals upon degree completion, the educational background and work and family characteristics of the two groups were considerably different. Four-year natives were more likely to be younger, with a medial age of 23 versus 25.5 for community college transfers (Figure 2).

Figure 2
Median Age at Time of Degree



- Seven out of ten four-year natives were dependent upon their parents for assistance with some or all college costs. Only four out of ten community college transfers were similarly dependent (Figure 3).

Figure 3
Parents Assisted with College Expenses



- On average, community college transfers earned lower grades in high school (3.0 mean GPA versus 3.4 for four-year native students) (Figure 4). About 81 percent of four-year native students came straight from high school to college compared to 40 percent of community college transfers (Figure 5).

Figure 4
Self-Reported High School Grades

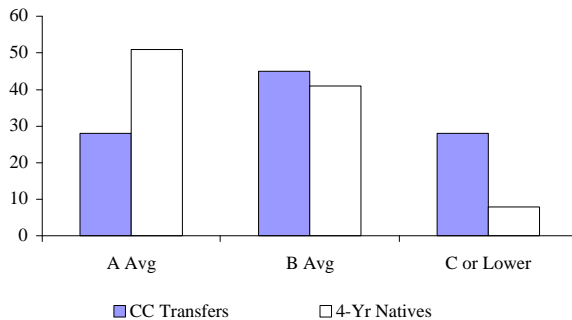


Figure 5
Main Activity Prior to College

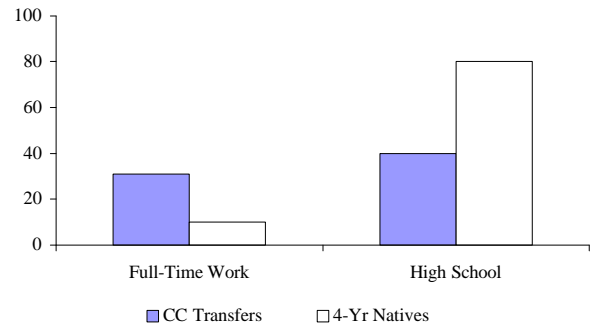
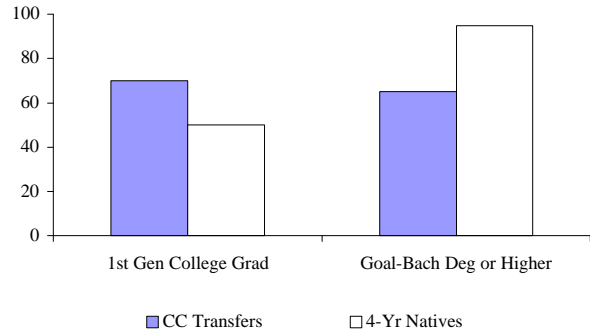


Figure 6
Educational Goals and Background

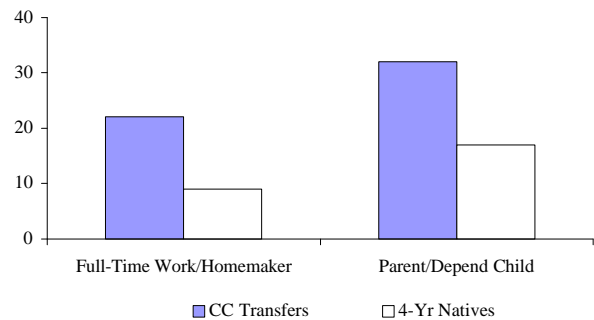
- Just over half the four-year native students had at least one parent with a bachelor's degree. Only about 30 percent of the community college transfers had a parent with a degree. The rest of the students were first generation college graduates (Figure 6).



- Community college transfers started their education with lower degree aspirations than native students. About 35 percent of community college transfers started with a goal below the bachelor's degree level. Almost all students who started at a four-year college planned for the bachelor's degree from the beginning (Figure 6).

- About 21 percent of community college transfers worked full-time or were homemakers in addition to their student status while at their bachelor's degree college compared to 9 percent of four-year native students. On average, more community college transfers were parents responsible for dependent children (31 percent versus 17 percent for native students) (Figure 7).

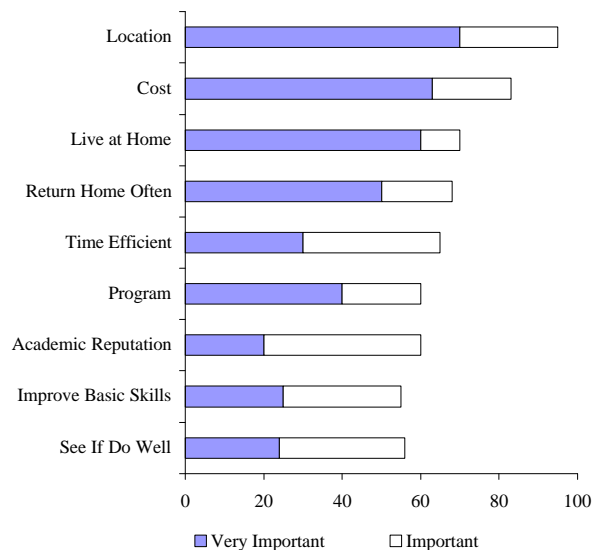
Figure 7
Status While Students



Why do students choose to begin their studies at a community college?

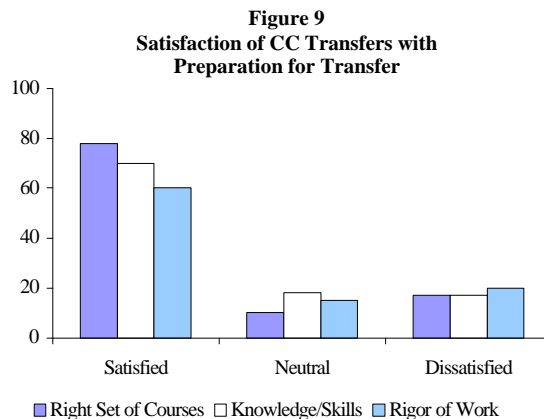
- Students choose to begin studies at the community college primarily because of location (94 percent) and cost (84 percent) (Figure 8).

Figure 8
Reason for Starting at Community College
Rated Important by Majority



How well-prepared are community college transfer students for their studies at four-year institutions?

- Over two-thirds of community college transfers said their community college encouraged them to transfer.
- Most of those who completed an associate degree (85 percent) saw the degree as a benefit in the transfer process.
- The majority of community college transfers were satisfied or very satisfied with their preparation for transfer in the three areas covered in the survey: right set of courses, general knowledge and skills expected upon transfer, and rigor of papers, exams, and reading. (See Figure 9.)



How effective is the transfer process for community college students?

- About 27 percent reported that the four-year school did not accept a course the students had assumed would transfer. The HECB is evaluating these student concerns in a follow-up study of actual transcripts.
- Students had little difficulty being accepted to the school of their first choice. However, 6 percent of transfers waited a term for admission due to filled capacities at the four-year school.
- The majority of community college transfers found all the sources of information they needed to prepare for transfer and were pleased with the availability and quality of advising. About 18 percent recommended better or more up-to-date information on the courses which would transfer. Another 15 percent recommended better quality advising for transfer.

Conclusions

Community College Role

- Community colleges perform a substantial role in the education of the citizens of Washington at the bachelor's degree level. Nearly half (48 percent) of those who received their degree from public regional institutions transferred courses from Washington community colleges. About 29 percent of those graduating from public research institutions transferred from community colleges. Of the graduates of independent colleges, about 22 percent had transferred community college classes.
- Community colleges provide effective transfer education and advising for students with widely varied educational and family backgrounds. Many students who may not have initially met the admissions standards of the state's four-year institutions have successfully prepared for transfer at Washington community colleges.

- Community colleges served mostly transfer students who were the first generation in their families to attain education at the bachelor's degree level. Only three in ten community college transfers had a parent with a degree compared to more than half of the four-year natives.

Community College Performance

- Community colleges perform the transfer function well as shown by the same level of achievements on final year grades for transfer and four-year natives.
- The educational aspirations of those students (35 percent) who entered college with plans for completing their education short of a bachelor's degree were raised. Community college transfers, regardless of their initial aspirations, felt encouraged by their colleges to transfer and to learn more.
- The majority of community college transfers were satisfied with all aspects of their preparation for transfer. They found the sources of information they needed to prepare for transfer and were pleased with the availability and quality of advising. Those who completed the associate degree found it helpful in the transfer process. About a third of the students recommended improvement in advising services and more up-to-date information on transferability of courses.

Transfer Process

- An equally small number of transfers (one in five) who started at community colleges and at four-year institutions expressed dissatisfaction with the rigor of their papers, exams, and readings at their first college.
- Based on the study results, it is estimated that each year more than 500 community college transfers must wait a term for admission to a four-year institution they were qualified to attend due to filled capacities at the four-year school.

PURPOSE OF STUDY

The primary data sources on the community college transfer function in Washington are the following two reports.

- Student Mobility Among Washington Institutions of Higher Education, Michael Magie for the Intercollege Relations commission. An annual report, fall quarter data for public and independent institutions.
- Student Transfers from Washington community Colleges to Four-Year Institutions, SBCCE. Annual data for public institutions.

Those sources show that about 8,600 students transfer each year from the community colleges to four-year public and independent colleges. They also show that three out of four within-state transfers are from community colleges.

These reports provide only a partial picture of the community college role in transfer. Policy-makers are in need of additional information if they are to make informed decisions about funding priorities related to bachelor's degree education. They need to know how well community colleges perform this important part of their mission. They also need to know the size and type of role played by community colleges in the achievement of the bachelor's degree.

Given the lack of complete information needed by policy makers, the SBCCE conducted this study. The purposes of the study were to provide a complete picture of the role community colleges play in the award of the bachelor's degree and to provide feedback from students on the effectiveness of transfer preparation at the community college.

To describe the role of community colleges, the following research questions were addressed by the study:

- What percent of those with bachelor's degrees have transferred Washington community college credits?
- Do those who start at a community college differ from those who start at four-year institutions? Why do students choose to begin their studies at a community college?

These questions were addressed to describe the effectiveness of community college transfer preparation:

- How well prepared are community college transfer students for their studies at the four-year institution?
- How effective is the transfer process in Washington for community college students?

The study results will be helpful in formulating the state's system of higher education policies. Feedback from community college transfer students about their experience at the community college will be used in future system wide planning.

STUDY DESIGN

The study sought cooperation from the four-year colleges and universities in Washington. SBCCE asked all except the smallest institutions and City University to share lists of their graduating students. The institutions involved in the study were:

Independent Colleges and Universities: Gonzaga, Pacific Lutheran University, Seattle University, Seattle Pacific University, University of Puget Sound, Walla Walla College, Whitman, Whitworth.

Regional Universities: Central, Eastern and Western Washington Universities, and The Evergreen State College.

Research Universities: University of Washington, Washington State University.

Staff from the public institutions served on a Higher Education Coordinating Board ad hoc transfer study advisory committee that assisted with the design of the survey instrument. (See Appendix D for membership.) The advisory committee worked with the SBCCE staff and Steve Wall, administrator at Pierce College and doctoral student at the University of Texas, who will use the survey results for his doctoral work. That group designed and tested the survey instrument between February and April of 1988.

The survey was designed for students who were about to complete their first bachelor's degree. To provide comparisons, the survey gathered information on four groups: those who did not transfer (four-year native students), four-year transfers, out-of-state transfers, and community college transfers.

The study incorporated recommendations from previous studies on community college transfer in other states. Other research has used longitudinal analysis, following a group from the time of transfer to the degree. For practical reasons, those studies limited the number of years allowed from date of transfer to degree attainment, despite the fact that some transfers may take 10 or more years to achieve their educational goal. Thus previous studies have excluded from the successful category those transfers who took longer to achieve degrees than the study time frame allowed. To address this problem this study looked at students at the point of goal achievement, instead of using the longitudinal approach.

Earlier studies have stressed the need to gather socio-economic and educational background on the transfer cohort. Consequently, this survey included questions on the family, educational and work background of transfer and native students. At the request of the University of Washington Branch Campus Planning Office the survey also included five questions on student transportation to classes.

The survey instrument included 51 potential questions. Complex skip patterns were used to deal with the various patterns of enrollment and reasons for enrolling. Students answered only the questions relevant to their own enrollment pattern. Depending on the respondent's enrollment pattern, interviews ranged from 5 to 20 minutes in length. Respondents used a 25-page survey form and were responsible for following the skip pattern instructions on the form. Copies of the mail versions of the survey may be obtained from SBCCE.

The maximum sampling error at the 95 percent confidence level for the survey sub-populations is:

| | |
|-----------------------------|---------------------|
| Four-Year Native Students | plus or minus 5.5% |
| Community College Transfers | plus or minus 8.8% |
| Other Transfers | plus or minus 14.6% |
| All Respondents | plus or minus 4.1% |

A survey research firm conducted the telephone interview in May 1988, before student graduation. The survey firm used a computer-assisted interview technique to handle the complex skip patterns in the instrument. The SBCCE staff provided the research firm with a list of a 10 percent random sample (N=957) from the list of students who applied to graduate in spring 1988. SBCCE replaced any students in the samples who requested that their college not release address and phone information. SBCCE used a mail version of the survey for students in the samples without phone numbers (about 3 to 5 percent of each sample). SBCCE contacted the students selected for the phone survey by letter to ask for their involvement before the phone calls began. When the survey firm found disconnected phone numbers or numbers in error, SBCCE sent follow-up mail surveys to those students.

Thirty of the students contacted by the survey firm indicated that they either would not be completing their degree in spring 1988 or that they would be completing a second bachelor's degree. These students were dropped from further consideration. Of the remaining 927, the status was as follows:

| | | |
|--|-----|-----|
| No phone number provided or disconnected number: | | 239 |
| All received mail survey: | 239 | |
| No response or late response: | 98 | |
| Completed mail responses: | 141 | |
| Non-response rate: | 41% | |
| Mail response rate | 59% | |
| Phoned by survey firm: | | 688 |
| No contact after 3 attempts: | 216 | |
| Refused: | 48 | |
| Completed responses: | 424 | |
| Refusal as a % of phone total: | 7% | |
| No contacts as a % of phone total: | 31% | |
| Responses as a % of phone total: | 62% | |

This study assumed that those who were not contacted in the phone survey were not different from respondents in any systematic way that relates to the survey questions. That assumption was based on the following:

- The survey firm used all reasonable calling hours, day and evening.
- All potential respondents were at the same successful stage in their educational career, with none more likely to be available or unavailable for phone contact for reasons related to their educational experience.
- If students had moved to another number, the surveyors contacted them at the new number, thus those who had moved were as likely to be contacted as others.
- While information was not available on the demographics of the spring 1988 graduates, a comparison with the entire year's graduating class indicated that those contacted had similar demographic characteristics and were distributed in a similar manner between sectors. Women were slightly over-represented in the respondent groups at public institutions.

| | Respondents | 1988 Graduates |
|----------------|--------------------|-----------------------|
| Sector | | |
| Research | 46% | 45% |
| Regional | 26% | 34% |
| Independent | 28% | 22% |
| Percent Female | 56% | 52% |
| Research | 56% | 48% |
| Regional | 61% | 54% |
| Independent | 51% | 55% |
| Percent White | | |
| Public | 90% | 91% |
| Independent | 95% | 93% |

This study also assumed that all or most of the small number who refused to participate in the phone survey were not systematically different than respondents on variables related to the survey questions. Those who did not respond generally indicated that they were too busy to participate in a 15-minute interview. The study assumed a higher potential for bias among those who did not respond to the mail survey, but that the bias was negligible in terms of the data presented in the report due to the small size of the mail portion of the study.

This study assumed the use of the phone survey method resulted in a respondent group representative of all students receiving their first bachelor's degree in spring 1988. Eastern Washington University and Whitman College, however, have indicated that the results may slightly underestimate the role of community college transfer to their institutions.

The SBCCE staff completed data verification and coding of open-ended responses in June, 1988. Steve Wall and Loretta Seppanen conducted the data analysis in July through September. A committee representing the community colleges and the HECB staff, the Bachelor's Survey Review Committee, assisted with preparation of the final report in October and November of 1988. (See Appendix D for membership.)

DEFINITIONS

For the purposes of this study the following definitions were used:

Community College Transfers: Those who started work toward their degree at a Washington community college. They were 22 percent of the total survey group (124). About two-thirds of this group completed the associate degree.

Other Transfers: Those who started at a Washington four-year institution other than the one from which they received their degree. They were 8 percent of the total group (45). Some of this group also attended community colleges before completing the degree (28 percent of this group).

Four-Year Natives: Those who started and completed their degree at the same institution without transfer. They were 56 percent of the sample (319).

Excluded from this report, but included in the study, were those who transferred from out-of-state (11 percent) and those who transferred from their four-year degree institution to another college and back again or took a summer course at a four-year institution (5 percent). Some who attended community colleges but did not start there were among the excluded groups. For information on the reenrollment pattern of these excluded groups see Appendix A.

The **associate degree** as referenced in this report includes both the degrees designed for transfer and vocational purposes.

The study defined **full-time enrollment** status as 10 or more credits per term, on the average.

The report classified **time to bachelor's degree** as follows:

Traditional Pattern: Start to completion is five years or less.

Short Term Stop-out: Six to 10 years from start to completion.

Long Term Stop-out: More than 10 years from start to completion.

Respondents provide grade-point average, **GPA**, data as a letter grade with plus or minus where appropriate. The SBCCE staff translated letter grades to numeric for calculation of the median GPA. All GPA data are self-reports. This study assumes that the “grade inflation” likely from self-reported grades is similar for all groups.

Respondents were asked to indicate if specific family members had completed the bachelor's degree. The study called respondents **first-generation college graduates** if they indicated that neither parent had completed the bachelor's degree.

Family income data for 1987 included parents' income if the college regarded the student's parents as responsible for part of the cost of the students' education.

The survey used open-ended questions to get student recommendations related to transfer. The survey research firm made a special effort to solicit a response, even if only “no recommendation at this time,” from all participants. After the responses were collected, SBCCE staff reviewed the responses to discover patterns. They then tallied the responses according to the patterns identified.

ROLE OF COMMUNITY COLLEGES IN ACHIEVEMENT OF THE BACHELOR’S DEGREE

The survey shows that community colleges in Washington played a significant role in the achievement of the bachelor’s degree at Washington public and independent four-year institutions.

Quantifying the Role of Community Colleges

About a third of those who completed a bachelor’s degree transferred credits from a community college. Of that group, most (69 percent) started at a Washington community college (community college transfers). Of these transfers, most (85 percent) attended a single community college before transfer. A few (2 percent of community college starters) attended three community colleges before transfer. Thirteen percent community college transfers attended a four-year college other than the degree college after their community college work.

An additional ten percent of the respondents, while not starting at a community college, took some of their transfer work at community colleges. The included:

- Reverse transfers (started and ended at same four-year institution, but attended a community college in between),
- Out-of-state transfers, and
- Four-year to community college to other four-year transfers.

For purposes of this report, these three groups have been excluded from the group labeled “community college transfers.” These students may have had substantial transfer experience other than at the community college.

Table I summarizes the two groups of community college students who transfer.

For a summary of all respondents’ college attendance patterns, see Appendix A.

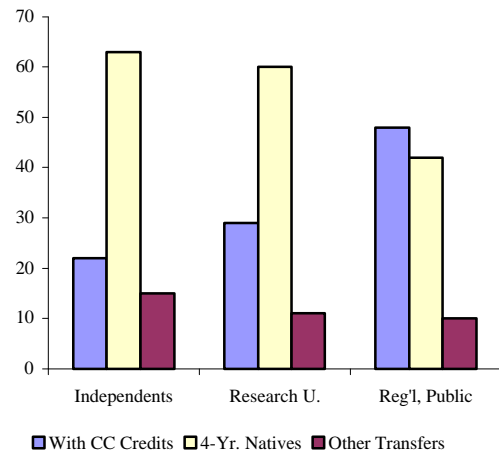
The 33 percent estimate is a result of combining the survey results (32 percent) with an estimate for City University. The survey excluded students awarded the bachelor’s degree at City University. This report assumes a high percent of City University students with community college background, based on the sizable transfer rate to City University. (200 each fall term) although the number of community college transfers is currently unknown.

| Table I | |
|---|--------------|
| Community College Starters (22.0% of respondents) | |
| Community College to Four-Year | 18.6% |
| Several Community Colleges to Four-Year | 0.5% |
| Community College to Four-year To Other Four-Year | 2.8% |
| Other Community College Students (7.0% of respondents) | |
| Reverse Transfer | 4.1% |
| Out-of-State to Community College | 2.8% |
| Four-Year to Community College to Other Four-year | 3.2% |
| Total Respondents with Community College Credits | 32.0% |

Transfer of Community College Credits By Sector

Bachelor's degree recipients at independent colleges (Gonzaga, Pacific Lutheran University, Seattle University, Seattle Pacific University, University of Puget Sound, Walla Walla College, Whitman, and Whitworth) were less likely to have credits from community colleges than degree recipients from public institutions. About 36 percent of those from public institutions transferred credits from community colleges. Slightly more respondents with community college transfer credits graduated from the research universities (University of Washington and Washington State University) than from the regional institutions (Western, Eastern, and Central Washington Universities and The Evergreen State College). That difference reflects the larger graduating classes at the research universities, not the larger proportion of students with community college credits at those institutions. About 29 percent of research university graduates transferred community college credits, while nearly half (48 percent) of regional institution graduates had transferred from community colleges. The larger number from community colleges at research universities results from a larger number of graduates at those institutions than at regional institutions.

Figure 10
Percent of Graduates by Sector



Credits Completed Prior to Transfer

The majority of community college transfers (67 percent) completed the associate degree prior to transfer. Of those who had not completed the degree, one in three transferred 90 credits to their four-year institution. About 6 percent transferred with less than 45 credits. Table II compares the credits completed for the survey group with the credits completed by current transfer students.

| Credits Completed at Transfer (Bachelor's Degree Survey) | % of Comm. College Transfers |
|--|---|
| 90 Credits or Associate Degree | 79% |
| 45-89 | 15% |
| Less than 45 | 6% |
| Transfer Status at Public Colleges (1987-88 SBCCE Report) | % of Comm. College Transfers |
| 90 Credits or Associate Degree | 53% |
| Sophomore Level | 30% |
| Freshman Level | 17% |

Role of Transfer in Washington

The survey showed that transfer between institutions of all types was not as common in Washington as it has been elsewhere. A 1984 national study found the pattern of attending two or more colleges was common to more than 60 percent of those who received bachelor's degrees (High School and Beyond: Second Follow-up, 1972 National Longitudinal Study). Only 46 percent of the bachelor's degree recipients in this survey, spring 1988, had attended two or more institutions.

Comparison with the same study shows the role of the associate degree in transfer is slightly higher in Washington than elsewhere. In the Washington study, 16 percent of bachelor's degree recipients had completed an associate degree. The 1984 nationwide study found that only 11 percent of those with bachelor's degrees had completed the associate degree at community colleges.

**SIMILARITIES AND DIFFERENCES BETWEEN
THOSE WHO START AT COMMUNITY COLLEGES
AND THOSE WHO START AT FOUR-YEAR COLLEGES**

The role played by community colleges in the achievement of the bachelor’s degree was especially important for those who:

- Took time out for work and family after high school or who went to college on a part-time basis;
- Were placebound and found reducing costs by staying at home important;
- Started college with educational aspirations short of the four-year degree level;
- Were first-generation college graduates; and
- Had high school records that were not as strong as others.

| Table III | | |
|--------------------------------------|--------------------|--------------------------|
| | CC Transfer | Four-Year Natives |
| Final year GPA | | |
| Mean GP | 3.3 | 3.3 |
| Standard Deviation | .5 | .5 |
| Self Reported GPA, Final Year | | |
| C or lower (22) | 6% | 5% |
| B Average (245) | 62% | 61% |
| A Average (134) | 32% | 34% |
| Plans for After BA | | |
| More College (85) | 20% | 20% |
| Work (333) | 80% | 80% |
| Major at BA School | | |
| Engineering (28) | 5% | 7% |
| Liberal Arts (241) | 52% | 57% |
| Education (21) | 8% | 4% |
| Business (92) | 21% | 20% |
| Other Areas (52) | 19% | 18% |

Similarities

Outcomes: The results of the bachelor’s degree work were reported to be the same for four-year native and community college transfers. As Table III shows, both groups had the same final year grade, majors and plans for the future in terms of work or additional education.

(Final year GPA was selected as the measure for comparison rather than cumulative GPA. The cumulative GPA for community college transfers typically excludes the first two years of grades while the cumulative GPA for four-year natives includes the first two years; therefore, the numbers are not comparable.)

Problems for Students: There was little agreement among respondents to the question of the most difficult aspect of being a student. However, community college transfers and four-year native students both perceived that throughout their college career, rigor of study and finance issues were equally challenging problems (Table IV).

| Table IV | | |
|--|--------------------|----------------|
| | CC Transfer | Natives |
| Rigor of Study (49) | 22% | 19% |
| Finances (50) | 16% | 22% |
| These differences are not statistically significant. | | |

Demographics: As shown in Table V, the two groups were similar in terms of sex and race. Their status at the bachelor's degree school as full or part-time students was also the same: both groups were almost exclusively full-time students.

The percentage of minorities in the graduating group was similar to the percent in the state population in 1987. About 10 percent of graduates were minorities compared to 11 percent of the population. However, the distribution among race-groups was different from the distribution of the population: 6 percent Asian compared to a Washington population that was 3.2 percent Asian; 4 percent other minorities compared to a population that was 7.8 percent other minorities.

| | % of Group CC Transfer | Four-Year Natives |
|---|-----------------------------------|------------------------------|
| Part-time/Full-time Status | | |
| Part-Time (18) | 7% | 3% |
| Full-Time (420) | 93% | 97% |
| Sex | | |
| Males (200) | 50% | 43% |
| Females (243) | 50% | 57% |
| Race-Group | | |
| Caucasian (392) | 92% | 87% |
| Asian (25) | 4% | 6% |
| Black, Hispanic, & Native American (17) | 4% | 4% |
| Other, Not Provided | --- | 3% |

| | % of Group | |
|--|--------------------|------------------------------|
| | CC Transfer | Four-Year Natives |
| Received State/Federal Financial Aid (204) | 51% | 45% |
| Financial Assistance from Employer (42) | 11% | 9% |
| Took Out Private Loan (122) | 28% | 28% |
| Received DVR, Veterans or BIA Funding (25) | 7% | 5% |
| Earned While A Student (234) | 59% | 67% |

Differences are not statistically significant.

Financial Aid: The community college transfers and four-year native students made comparable use of the sources of financial support listed in the survey (Table VI). Differences were found only in aid from parents, savings from work, and scholarships (described in the sections on differences below).

Differences

Community college transfers and four-year natives differed from each other in educational and socio-economic background.

Age: The Majority (65 percent) of all respondents were traditional aged students, 22 to 23 years of age. Community college transfers were significantly more likely to be among the 45 percent of all respondents not in the traditional age group. The median age of community college transfers was two and a half years older than their four-year native counterpart (Table VII).

| | % of Group | | Signif- icance |
|------------------------------|--------------------|------------------------------|---------------------------|
| | CC Transfer | Four-Year Natives | |
| Median Age at Time of Degree | 25.5 | 23.0 | .0001 |
| Standard Deviations | 7 | 6 | (mean) |

The background differences described below help to explain why the average community college transfer was older at graduation than the average four-year native student.

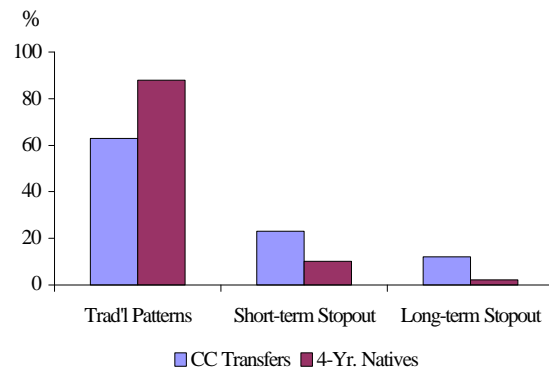
Table VIII

| | CC Transfer | Four-Year Natives | Significance |
|--|-------------|-------------------|--------------|
| High School Graduates: | | | |
| Median Yr. of High School Grad. | 1981 | 1984 | .0001 |
| Standard Deviation | 6.3 | 3.0 (mean) | |
| Graduated from HS 4-5 years ago | 34% | 78% | .0001 |
| Main Activity Prior to College: | | | |
| Student at High School (246) | 40% | 81% | .0001 |
| Full-time Work or Military (57) | 31% | 10% | .00001 |

After High School: Most four-year native students went straight from high school to college. They completed their bachelor's degree in 4 or 5 years (78%). About one in three community college students followed that same pattern. The other two-thirds worked, raised families or had other reasons for not going straight from high school to college (Table VIII).

Time to Bachelor's Degree: Whether the respondents went straight from high school to college or not, most (75 percent) took five years or less to complete their degree. About 88 percent of four-year natives and 63 percent of community college transfers completed the bachelor's degree in five years or less. Due to differences described below, more than a third of community college transfers took longer to get their degrees.

**Figure 11
Time to Degree**



A fifth of the community college transfers juggled the demands of homemaking and full-time work with college helping explain why community college transfers took longer to get their degrees and were older when they got them. Table IX shows that while they were students at the four-year institution, community college transfers were more than twice as likely to be working or a full-time homemaker than native students. They also were more likely to be a parent with dependent children.

Table IX

| Status at Bachelor's School | % of Group | | Significance |
|--|-------------|-------------------|--------------|
| | CC Transfer | Four-Year Natives | |
| Full-time Work, Military or Homemaker while Student (52) | 21% | 9% | .0017 |
| Part-time Work, Work-study or Not Working (386) | 79% | 91% | .0017 |
| Couple or Single Parent with Dependent Children (91) | 31% | 17% | .0015 |

Educational Background: Five out of ten four-year native students had at least one parent with a bachelor’s degree. Only three in ten community college students had a parent with a bachelor’s degree. The remaining respondents were first-generation college graduates as shown in Table X.

While many community college transfers and four-year natives had the same high school background as evidenced by their self-reported average high school grades, the average high school GPA for community college transfers was lower than for four-year natives. The small group with backgrounds which were not academically as strong were more likely to be community college transfers (Table X).

| | CC Transfer | Four-Year Natives | Significance |
|---|--------------------|--------------------------|---------------------|
| First Generation College Graduate (213) | 70% | 47% | .0001 |
| Mean Self-Reported High School GPA | 3.0 | 3.4 | .0001 |
| Standard Deviation | .8 | .6 | |
| <u>Self-Reported High School Grade</u> | | | |
| C or Below (57) | 26% | 8% | .0001 |
| B Average (187) | 46% | 42% | .0001 |
| A Average (190) | 28% | 50% | .0001 |

Community college transfers were more likely to start college with plans for completing their education short of a bachelor’s degree (Table XI).

| Goal at the Start of College | % of Group | | Significance |
|-------------------------------------|--------------------|--------------------------|---------------------|
| | CC Transfer | Four-Year Natives | |
| Bachelor’s Degree or above (377) | 65% | 93% | .0001 |

Self-Supporting Status: The vast majority of four-year native students (71 percent) received financial support for college from their parents.

The majority of community college transfers (58 percent) were self-supporting, receiving no assistance from their parents.

At least in part, due to the self-supporting status of some of the community college students, there were fewer high-income families, as shown in Table XII, among community college transfers. Family incomes for dependent students came from parents who typically had been in the workforce for two decades or more. Independent students, on the other hand, are starting in the world of work and thus receiving lower average wages.

| | % of Group | | Significance |
|--|--------------------|--------------------------|---------------------|
| | CC Transfer | Four-Year Natives | |
| Parents Assisted (276) | 42% | 71% | .0001 |
| Family Income more than \$40,000 (158) | 25% | 42% | .0041 |

Financial Aid: Community college transfers were less likely than four-year natives to have saved funds from work to attend college (a common pattern for students working in high school or during summers). They also were less likely to have received scholarships at the bachelor’s degree school (other transfer students also were less likely to have received scholarships). (See Table XIII.)

| | % of Group | | Signif- icance |
|------------------------------|-------------|----------------------|-------------------|
| | CC Transfer | Four-Year Natives | |
| Used Savings from Work (311) | 61% | 75% | .0084 |
| Scholarships (171) | 25% | 44% | .0003 |

All differences were significant at the .01 level.

STUDENTS' REASONS FOR ENROLLING AT A COMMUNITY COLLEGE

Reason For Selecting the College

Most respondents who began at a community college chose that institution because of the college's location (or percent) and for the comparatively low cost (72 percent). Most community college transfers did not pick their college for its instructional program, although program offering was a "very important" selection criteria for two out of five community college students.

Table XIV compares the reasons for selecting a first college given by all transfers. The first column shows those who said the listed reason was very important. The second column gives the percent of those who said the reason was very important or somewhat important. All the reasons listed in the survey are listed below.

| Table XIV | | | | |
|--|--------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| % Selecting Reason For Selecting School | | | | |
| | Very Important | | Very or Somewhat Important | |
| | CC Transfer (N=124) | Other Transfers (N=45) | CC Transfer (N=124) | Other Transfers (N=45) |
| Liking the School's Location | 69% | 44% | 94% | 79% |
| Cost Efficient Way to Get Bachelor's | 63% | 18% | 84% | 47% |
| Ability to Live at Home | 59% | 9% | 72% | 18% |
| Ability to Return Home Often | 47% | 18% | 70% | 71% |
| Specific Program Availability | 38% | 44% | 57% | 71% |
| Time Efficient Way to Get Bachelor's | 30% | 15% | 68% | 47% |
| Ability to Improve Basic Skills | 25% | 12% | 53% | 35% |
| Seeing If I Will Do Well | 24% | 24% | 52% | 44% |
| Availability of Job Training | 23% | 12% | 47% | 47% |
| Reputation of Academics | 20% | 44% | 57% | 85% |
| Financial Aid Availability | 18% | 12% | 32% | 27% |
| Being Where I Feel I Belong | 15% | 21% | 40% | 77% |
| Advice from a Parent | 11% | 21% | 33% | 44% |
| Advice from a Counselor | 7% | -- | 25% | 24% |
| Friends Going Also | 7% | 15% | 25% | 27% |
| Not Meeting First Choice Standards | 4% | 6% | 11% | 9% |
| Ability to be Away from Home | 3% | 24% | 10% | 71% |

Reason for Going to College

Not all community college transfers started at the community college for the purpose of transfer. (As noted above, many community college transfer students entered college with no intention of obtaining a bachelor's degree.) About one in four enrolled for non-transfer reasons (Table XV). That finding is similar to results of a California Study

of community college transfers. About one-third of California transfers started at a community college with an intent other than transfer (**Transfer Education**, Chancellor's Office, California Community Colleges, October 1984).

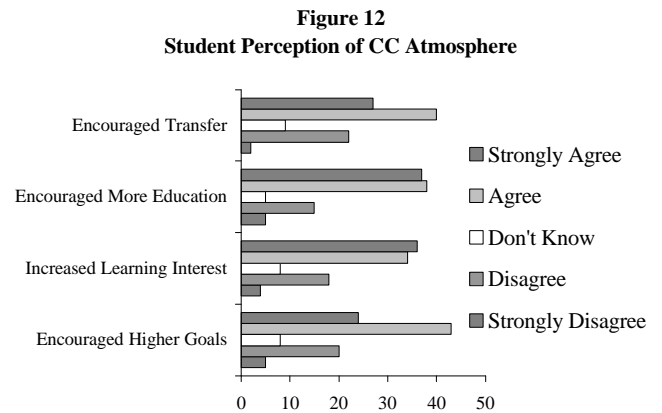
| Table XV | | |
|----------------------------------|-------------------------------------|------------|
| Intent | % Starting at Comm. College_ | |
| Transfer Degree | 32% | |
| Selected Transfer Courses | 44% | |
| Transfer Related Total | | 76% |
| Job Related | 14% | |
| Other Reasons | 7% | |
| Undecided | 3% | |
| Not Transfer Related | | 24% |

QUALITY OF PREPARATION OF COMMUNITY COLLEGE TRANSFER STUDENTS

Atmosphere of Encouragement

About 70 percent of community college transfers described their community college as providing an encouraging atmosphere for academic pursuits. Table XVI shows the percent who agreed or agreed strongly with each of the survey statements about educational encouragement from the community college.

| <u>My College...</u> | <u>% of Community College Transfers Agree/Agree Strongly</u> |
|--|--|
| Encouraged me to plan to transfer | 68% |
| Encouraged me to get more education | 72% |
| Increased my interest in learning new things | 75% |
| Encouraged me to reach for higher goals than I had set in the past | 67% |



The survey asked respondents to characterize their experience at the college. Many community college transfers answered positively about the environment and the support of faculty. The following were typical positive comments:

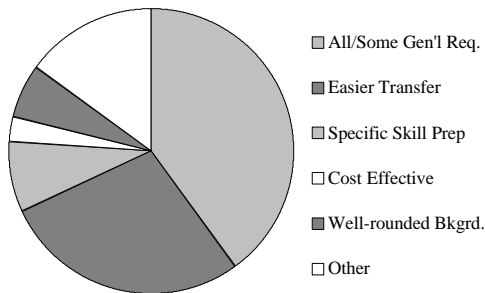
- It was a very good starting point for me. I received individualized attention, especially in science courses.
- I think it was a good experience for me. I met a lot of interesting people, got a new look on life.
- The best part of a community college was the faculty—they really cared.

Benefits of the Associate Degree

The majority of those who attended a community college before transferring completed the associate degree. Table XVII shows the degree completions of those who began at a community college, by type of degree. The first column shows the degree completion for transfers who began at a community college. The second column combines the data for those who began at a community college with those who attended a community college but started elsewhere.

| <u>Type of Degree</u> | <u>% of CC Transfers (N=121)</u> | <u>% of all Attending CCs (N=165)</u> |
|------------------------------|----------------------------------|---------------------------------------|
| Transfer Degree | 48% | 42% |
| Job Related Degree | 3% | 4% |
| Not Sure Which | <u>16%</u> | <u>12%</u> |
| Total with Associate Degrees | 67% | 60% |
| No Degree | 33% | 40% |

Figure 13
Benefits of Associate Degree



- It provided a minor for my degree.
 - The ability to go to a smaller school and take courses that I could use at a larger school.
 - It gave me the confidence to go on and complete another degree.
- It looks good on my resume.
 - It got me an internship and a great job.

For those who felt the degree was no benefit, the following comments were typical:

- I guess I already had the credits, and wasn't looking for the associate degree.
- What I needed was pre-engineering credits, not a degree.
- I didn't need the extra courses that were needed for the associate degree to complete my college.
- I don't think it was representative of the work that was expected of me at the four-year college.
- The (four-year school) has specific courses that they require students to take regardless of past similar classes taken.

The SBCCE estimates that less than half of Washington community college students earn an associate degree. Since this study found that the majority (60 percent) of those achieving the bachelor's degree with community college transfer credits had completed the associate degree, it appears that those with the associate degree are more likely to get the bachelor's than those without. That pattern is consistent with a study in Illinois which found that students with the degree were more likely to attain the bachelor's degree than non-degree community college students. (**Transfer Study: A Five-Year Study of Students Transferring from Illinois Two-Year Colleges to Illinois Senior Colleges/Universities in the Fall of 1979**, Illinois Community College Board, May 1986.) Also, in Arizona, students with two years at the community college were more likely to have completed the bachelor's degree than those with fewer credits. (**Persistence, Performance and Degree Achievement of Arizona Community College Transfers in Arizona's Public Universities**, Richard Richardson, Jr., Donald Doucette, Arizona State University, November, 1980.)

Course and Skill Preparation

The majority of community college transfers were satisfied or very satisfied with their preparation for transfer in the three areas covered by the survey. In terms of the right set of courses, 77 percent were satisfied. About 70 percent were satisfied with the skills and knowledge preparation they received at the community college. Nearly two-thirds were satisfied with the rigor of their courses, papers and exams

Eighty-five percent of those who completed the associate degree said it was beneficial to the transfer process. The largest group (40 percent) saw a benefit in the associate degree meeting some or all of the general education requirements for the bachelor's degree. A savings in time and hassle was also noted by many (28 percent).

The 15 percent in the "other" category made the following types of comments:

- It looks good on my resume.
- It got me an internship and a great job.

and readings. Table XVIII shows the satisfaction ratings were similar for both the community college transfers and those who transferred from four-year institutions.

| | Community College Transfers (N=124) | | | Other Transfers (N=45) | | |
|---|--|---------|-----------------------------------|--------------------------------|---------|-----------------------------------|
| | Very/ Somewhat Satisfied | Neutral | Very/ Somewhat Dissatisfied | Very/ Somewhat Satisfied | Neutral | Very/ Somewhat Dissatisfied |
| <i>How well did your work at this school prepare you for transfer in terms of..</i> | | | | | | |
| Right Set of Courses | 77% | 9% | 14% | 79% | 15% | 6% |
| General Knowledge and Skills Expected Upon Transfer | 70% | 16% | 14% | 79% | 15% | 6% |
| Rigor of Papers, Exams, & Reading | 61% | 19% | 21% | 68% | 15% | 18% |

In response to a request for recommendations to improve transfer preparations, about 18 percent of the community college transfers recommended increased rigor. The following are examples of their comments:

- I would recommend that (college name) raise its faculty expectations and the faculty raise students expectations.
- Better prepare them for a four-year college. Make the classes more difficult and challenging.
- More rigorous programs. It was sort of like a high school, and the requirements were not very high.
- Make it harder by making the courses more technical with more reading and more work.

EFFECTIVENESS OF THE TRANSFER PROCESS FOR COMMUNITY COLLEGE STUDENTS

Problems of Transfer Students

Twenty-seven percent of community college transfers said they were unable to transfer courses they had expected would transfer. The majority of transfers stated that they had no loss of credit due to the transfer process. The following courses were listed by the students as not being accepted for transfer at public four-year institutions:

| | | |
|------------------------|-------------------------|--------------------------|
| Algebra | Mechanics 101 | Biology |
| Psychology | Computer courses | Sociology |
| Creative Writing | Vocational courses | Humanities |
| Anthropology | Oceanography | Business courses-2 |
| Speech Communication-2 | Courses under 100 level | Theater courses |
| English | American History | Music |
| Business Law | Science courses | College Newspaper course |
| Technical Writing | Economic | |

A follow-up study is being conducted by the Higher Education Coordinating Board to examine the transcripts of these students.

Being admitted to their first choice school was not a problem for most community college transfers. Eighty-six percent of community college students transferred to their first choice four-year college.

The status of the 17 who did not go to their first-choice school was:

- Six applied and were admitted, but chose not to attend,
- Two were not admitted due to low grades or failure to complete the appropriate prerequisites,
- Two were not admitted for reasons unknown,
- Seven did not apply.

Not getting into a four-year college at the planned time was a problem for 14 percent of community college transfers:

- Two percent had not submitted their application on time,
- Six percent said the school was full, so they had to wait,
- Six percent had other reasons, not indicated.

Effectiveness of Transfer Advising and Information

Community college transfer students gathered most (70 percent) of their information about the transfer process from sources at their community college. Four-year institutions were relied upon for information by 28 percent of transfers. (See Table XIX.)

| Table XIX | |
|------------------------------------|---|
| Source of Information | % of Comm. Coll. Transfers (Multiple Responses Possible) |
| Community College | 70% |
| Printed Information From Four-year | 20% |
| Personal Contact at Four-year | 8% |
| Other | 8% |

The vast majority (79 percent) of community college transfers worked with an advisor. Fourteen percent said advisors were available, but they did not use them. The rest said advisors were not available (3 percent) or they did not know if they were available (3 percent). Of those with advisors, 78 percent said the advisory was knowledgeable about transfer.

Of those who were aware of “College Days” (when four-year representatives came to their campus), only half attended those events (36 percent of the community college respondents). About 20 percent said “College Days” were not available at their campus.

All community colleges have printed transfer information available for use by students and a majority of transfers took advantage of the available information. But 11 percent of students said printed information on transfer was not available. Fifteen percent said information on prerequisites for transfer was not available. And 16 percent thought the admissions closing date was not available and another 24 percent were unsure.

Only half the respondents were able to take advantage of institution specific transfer course information. Some students started with intent other than transfer. Others were uncertain about the college they might attend in the future (28%). As a result, 49 percent did not plan their courses based on the specific requirements of a four-year institution.

Nevertheless, a majority (53 percent) said they had all the information they needed to complete the transfer process. Of those who sought additional information, half wanted specific lists of what would and what would not transfer.

Examples of comments made about transfer-course lists:

- Accurate transfer of basics—what really counts.
- More information on transfer and prerequisites that was easily accessible.
- Which my counselor would have been more knowledgeable about what would transfer and what wouldn't.
- Would have liked to have had transfer information as soon as I started.

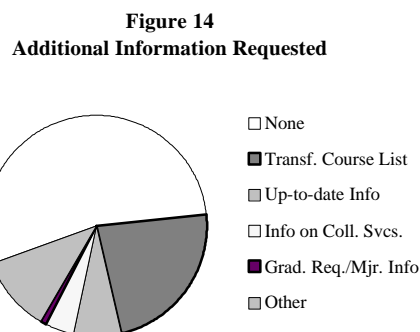
The “other” category included requests for information on the following:

- What professors to avoid.
- That advisors had made it more clear as to the differences between community college and university.
- How the number of credits change in transferring credit from a quarter school to a semester school.

Recognizing the difficulty of planning for an uncertain future; one respondent requested “a crystal ball.”

Student Recommendations

About 30 percent of the community college transfers thought the transfer process was fine or could not identify a specific recommendation. The remaining students made about half of their recommendations related to improved advising (15 percent of community college transfers) or improved availability of information (18 percent).



Examples of comments about advising were:

- Force more counselor (advisor) input. Require their signature. I used mine once, she cared very little.
- Get counselors (advisors) more informed. I've been given bad advice because they didn't know enough about what I needed.
- Increased availability of advisors.

Typical comments on the need for better information were:

- Need clear definition of transferable credits.
- People should go to the college fairs more often.
- Find out from the school you are transferring to what will transfer and what won't. Get it all in writing so they don't screw you over.

Students made other wide-ranging recommendations to improve the transfer process. The recommendations to the colleges were:

- School should loosen up on financial aid. They should not be so restrictive as to who qualifies.
- The program (Dental Hygiene) was so involved that there was no time to consider furthering their education.
- Concentrate on the aim of education. Is it to produce workers or thinkers, I often asked.
- Making classes more related to each other.
- Placement testing and a stronger role of counselors as well as greater faculty involvement.
- Encourage more transfer (activity) for people who don't want to work immediately.
- Benefits of extension programs (night/off campus): smaller classes; evening classes—for workers; greater variety of students.
- Students should be aware of what they are getting into before they transfer.

They also provided the following advice for other transfer students:

- Be cautious about technical courses.
- People should plan their careers more carefully.
- Take as many credits as possible at a community college before transferring.
- Take more writing classes.
- Sit in on classes you may take in the future.
- Take more transfer courses even if just taking a technical degree. Also make many friends at the university to learn about professors and registration.

CONCLUSIONS

As a result of this study a more complete picture of the important role of Washington community colleges in the achievement of the bachelor's degree has been provided. That picture indicates that the role of community colleges is substantial and that community colleges provide effective transfer education to a wide variety of students.

- Nearly half (48 percent) of those who received their degree from public regional institutions transferred courses from Washington community colleges. About 29 percent of those graduating from public research institutions transferred from community colleges. Of the graduates of independent colleges, about 22 percent had transferred community college classes.
- Community colleges provide effective transfer education and advising for students with widely varied educational and family backgrounds. Many students who may not have initially met the admissions standards of the state's four-year institutions, have successfully prepared for transfer at Washington community colleges.
- Community colleges served mostly transfer students who were the first generation in their families to attain bachelor's degree education. Only three in ten community college transfers had a parent with a degree compared to more than half of the four-year natives.

This study also shows that Washington community colleges are effective in providing transfer education as shown both by student achievement at the time of the bachelor's degree and student feedback. The study revealed an area of concern about the transfer process related to qualified community college transfers waiting for admission to four-year institutions.

- Community colleges perform the transfer function well as shown by the same level of achievements on final year grades for transfer and four-year natives.
- The educational aspirations of those students (35 percent) who entered college with no plans for completing a bachelor's degree were raised. Community college transfers, regardless of their initial aspirations, felt encouraged by their colleges to transfer and to learn more.
- The majority of community college transfers were satisfied with all aspects of their preparation for transfer. They found the sources of information they needed to prepare for transfer and were pleased with the availability and quality of advising. Those who completed the associate degree found it helpful in the transfer process. About a third of the students recommended improvement in advising services or more up-to-date information on transferability of courses.
- An equally small number of transfers (one in five) who started at community colleges and at four-year institutions expressed dissatisfaction with the rigor of their papers, exams and readings at their first college.
- Based on the study results, it is estimated that each year more than 500 community college transfers must wait a term for admission to a four-year institution they were qualified to attend due to filled capacities at the four-year school.

This study found that Washington community colleges play an important role in the achievement of the bachelor's degree. Community colleges provide an avenue for students who might otherwise not complete the bachelor's degree. Community college transfer students stated and demonstrated that their community college was effective in preparing them for transfer.

INSTITUTIONS ATTENDED BY WASHINGTON STATE BACHELOR'S DEGREE RECIPIENTS

Source: Bachelor's Degree Survey conducted by the State Board for Community College Education, Spring, 1988. The survey reached 6 percent of approximately 9,600 people receiving bachelor's degrees in the spring term at 14 Washington institutions.

TOTAL RESPONDENTS: 565

First college attended:
 In Washington 503
 Out-of-State: 62

NUMBER OF WASHINGTON COLLEGES ATTENDED:

| | All Respondents (565) | | Washington Starts Only (503) | |
|----------------|-----------------------|------------|------------------------------|------------|
| | No. | % of Total | No. | % of Total |
| One College | 304 | 54% | 304 | 60% |
| Two Colleges | 197 | 35% | 153 | 30% |
| Three Colleges | 53 | 9% | 36 | 7% |
| Four Colleges | 7 | 1% | 6 | 1% |
| Unknown | 4 | 1% | 4 | 1% |

Number attending a Washington community college sometime during preparation for the degree: 181 (32 percent of total).

SUMMARY OF TRANSFER PATTERNS (Abbreviation key at end):

| | No. | % of All | % of WA Starts * | |
|---|--------|----------|------------------|-------------------------|
| I. START AND END AT SAME PUBLIC OR INDEPENDENT FOUR-YEAR | | | | |
| A. No Transfer | 304 ** | 54% | 60% | BA---->---BA |
| B. Start BA, Other or CC, and BA | 26 ** | 5% | 5% | BA-->--Other or CC-->BA |
| II. START AT COMMUNITY COLLEGE | | | | |
| A. Start CC, no Other, and BA | 108 | 19% | 22% | CC ----->--BA |
| B. Start Cc, other, and BA | 16 | 3% | 3% | CC-->--Other-->--BA |
| III. START AT PUBLIC FOUR-YEAR | | | | |
| A. Start 4-Year, no Other, and BA | 17 | 3% | 3% | REG or RES-->--BA |
| B. Start 4-year, CC, and BA | 13 | 2% | 3% | REG or RES-->CC-->--BA |
| C. Start 4-Year, Other, and BA | 3 | 1% | 1% | REG or RES-->Other-->BA |

* Excludes from the base those who started out-of-state.

** Estimates. The phone survey did not include information on four-year 'natives' who 'stopped-out' to attend another college prior to graduation. Responses from the mail follow-up were used to generate the total respondent group estimate. In other statistical analysis, 319 respondents will be reported as having only attended one college.

| | No. | % of All | % of WA Starts * |
|---|-----|----------|----------------------|
| IV. START AT INDEPENDENT FOUR-YEAR | | | |
| A. Start IND, no Other, and BA | 7 | 1% | 1% IND---->----BA |
| B. Start IND, CC, and BA | 5 | 1% | 1% IND-->--CC-->--BA |
| V. START OUT OF STATE | | | |
| A. Start OS, and BA | 44 | 8% | 8% OS----->-----BA |
| B. Start OS, CC, and BA | 16 | 3% | 3% OS--->CC-->BA |
| C. Start OS, Other, and BA | 2 | | 2% OS--->Other-->BA |
| VI. UNKNOWN START | | | |
| A. Unknown Start | 4 | 1% | 1% |

TRANSFER PATTERNS:

I. START AND END AT SAME PUBLIC OR INDEPENDENT FOUR-YEAR INSTITUTION

330 Students – 58% of Graduates

| | No. | % Start/End Same |
|---|-----|------------------|
| A. No Transfer BA---->----BA..... | 304 | 92% |
| 1. Attended Research University | 152 | 46% |
| a. 59% of those graduating from research universities attended only one school | | |
| 2. Attended a Regional or TESC | 62 | 19% |
| b. 41% of those graduating from regional institutions attended only one school | | |
| 3. Attended Independents..... | 90 | 27% |
| c. 57% of those graduating from independent institutions attended only one school | | |
| B. Start and End at Same College, BA--->CC OR OTHER-->BA..... | 26 | 8% |
| Other College(s) in Between | | |
| 1. Attended Community College | | |
| a. Most attended only one community college BA-->-- CC-->--BA | 21 | 6% |
| b. One attended two community colleges BA-->CC-->CC-->BA..... | 1 | ~ |
| c. One attended four colleges UPS-->SPSCC-->WSU-->UW-->UPS..... | 1 | ~ |
| 2. Attended Only Four-year Colleges | | |
| a. All attended the University of Washington between attending their degree-granting institution BA---->RES---->BA..... | 3 | 1% |

II. START AT COMMUNITY COLLEGE

124 Students – 22% of Graduates

| | No. | % of CC Starts |
|--|-----|----------------|
| A. Attended Only Community College(s) and Degree-Granting CC---->----BA | 108 | 87% |
| 1. Attended one college and the BA school. | | |
| The college with the most starts was Bellevue Community College. All community colleges had at least one student in the respondent group – the mean was eight students per college. CC-->--BA..... | 105 | 85% |

| | No. | % of CC Starts |
|---|-----|----------------|
| 2. Three attended four colleges – three community colleges and the degree-granting colleges. The patterns were: | 3 | 2% |
| a. Bellevue-->--Green River-->--Shoreline-->--UW | | |
| b. Yakima Valley-->--Centralia-->--SPSCC-->--TESC | | |
| c. SPSCC-->--Pierce-->--TCC-->--TESC 3CC---->----BA | | |
| B. Attended Other Four-year After Community College and Before Degree-Granting. | 16 | 13% |
| CC-->--OTHER-->--BA | | |
| 1. Three-quarters attended a public college – half in public and half independents | | |
| CC-->--RES or REG-->--BA CC-->--IND-->--BA | | |
| 2. All enrolled in three colleges | | |

III. START AT FOUR-YEAR COLLEGE OTHER THAN BA SCHOOL

45 Students – 8% of Graduates

| | No. | % of Other 4-Yr Starts |
|---|-----|------------------------|
| A. Attended Two Four-Year Other-->--BA Colleges..... | 24 | 56% |
| B. Attended Three Four-Year Colleges RES-->--IND-->--BA | 1 | 2% |
| C. Attended a Community College After Other Start and Before Degree-Granting .. | 18 | 38% |
| BA Other-->--CC-->--BA | | |
| D. Attended Four Colleges UPS-->--TCC-->--HCC-->--SPU..... | 2 | 4% |
| WWU-->--SFCC-->--EWU-->--Whitworth | | |

IV. START OUT-OF-STATE

62 Students – 11% of Graduates

| | No. | % Out-of State |
|--|-----|----------------|
| A. Attended Only Out-of-State and Degree-Granting OS---->----BA Colleges | 44 | 71% |
| 1. Most likely to attend just one WA college before BA when start college was independent | | |
| 2. Sixteen research university graduates attended only two colleges—of the out-of-state starts graduating from research universities | | |
| 3. Ten regional or TESC graduates attended only two colleges—48 percent of the out-of-state starts graduating from regionals | | |
| 4. Nineteen independent institution graduates attended only two colleges—95 percent of the out-of-states start graduating fro independents | | |
| B. Attended Community College After Out-of-State and Before Degree-Granting | | |
| OC-->--CC-->--BA..... | 16 | 26% |
| 1. Most attended only three colleges | | |
| 2. One attended four colleges | | |
| OC-->--South Seattle-->--Seattle Central-->--CWU | | |
| C. Attended Four-Year After Out-of-State and Before Degree Granting | | |
| OS-->--Other-->--BA..... | 2 | 3% |

NUMBER OF SCHOOLS ATTENDED BY FIRST SCHOOL ATTENDED:

| First School Attended | Number of Schools Attended | | | | |
|-----------------------|----------------------------|-----|----|----|------------|
| | 1 | 2 | 3 | 4 | |
| Bachelor's School | 304 | 24 | 1 | 1 | 330 58% |
| Community College | | 105 | 16 | 3 | 124 22% |
| Other 4-Year | | 24 | 19 | 2 | 45 8% |
| Out-of-State | | 44 | 17 | 1 | 62 11% |
| Unknown | 3 | 1 | | | 4 1% |
| TOTAL | 307 | 198 | 53 | 7 | |
| | 54% | 35% | 9% | 1% | 565 |

DEFINITIONS AND ABBREVIATIONS:

SECTORS Four categories of higher education institutions:
 Public: CC—Community College
 REG—Regional and TESC
 RES—Research Universities
 Private: IND—Independents

BA The degree-granting institution

OTHER A four-year institution other than degree-granting

OS Out-of-state

BACHELOR'S DEGREE SURVEY SAMPLE

| College | On Graduation List | Respondents | Refusals |
|----------------------|--------------------------|-------------|-----------|
| Public | | | |
| Eastern | 693 | 27 | 2 |
| TESC | 732 | 49 | 1 |
| WSU | 1,796 | 91 | 7 |
| Central | 393 | 23 | 2 |
| UW | 2,540 | 168 | 18 |
| Western | 631 | 50 | 2 |
| Public Totals | 6,785 | 408 | 32 |
| Private | | | |
| Whitman | 280 | 7 | |
| Whitworth | 310 | 13 | |
| Walla Walla | | 11 | |
| | 280* | | |
| Seattle Pacific | | 21 | 8 |
| | 400* | | |
| Gonzaga | 279 | 11 | 4 |
| PLU | 414 | 31 | 2 |
| UPS | 481 | 35 | 1 |
| Seattle U. | 364 | 28 | 1 |
| Independents | 2,808 | 157 | 16 |
| All totals | 9,593 | 565 | 48 |

- *Estimates based on size of ten percent sample provided.*

**STUDENT TRANSFER PATTERNS
BACHELOR'S DEGREES
SPRING 1988**

Washington Public Four-Year and Independent Colleges

| Degree-Granting Institution | Starting Institution | | | | | | Not CC Start, But Attended | CC Total as % of | | |
|-----------------------------|----------------------|--------------|----------------|--------------|--------------------|---------------------|----------------------------|---------------------|------------|-----------------------|
| | N | At BA School | % at BA School | Out-of State | Other Wash. 4-Year | Wash. Comm. College | | Total Comm. College | All | All Starting in Wash. |
| WSU | 91 | 59 | 65% | 6 | 7 | 18 | 7 | 25 | 27% | 29% |
| UW | 168 | 103 | 61% | 15 | 13 | 36 | 8 | 44 | 26% | 29% |
| Research U | 259 | 162 | 63% | 21 | 20 | 54 | 15 | 69 | 27% | 29% |
| CWU | 23 | 12 | 52% | 4 | 2 | 5 | 4 | 9 | 39% | 47% |
| EWU | 27 | 19 | 70% | 1 | 1 | 6 | | 6 | 22% | 23% |
| WWU | 50 | 29 | 58% | 1 | 3 | 17 | 3 | 20 | 40% | 41% |
| TESC | 49 | 8 | 16% | 15 | 3 | 22 | 9 | 31 | 63% | 91% |
| Regionals, TESC | 149 | 68 | 46% | 21 | 9 | 50 | 16 | 66 | 44% | 52% |
| Gonzaga | 11 | 9 | 82% | 1 | 1 | | 1 | 1 | 9% | 10% |
| PLU | 31 | 20 | 65% | 3 | 3 | 5 | 4 | 9 | 29% | 32% |
| SU | 28 | 12 | 43% | 2 | 5 | 9 | 1 | 10 | 36% | 38% |
| SPU | 21 | 11 | 52% | 5 | 2 | 3 | 2 | 5 | 24% | 31% |
| UPS | 35 | 21 | 60% | 7 | 4 | 2 | 1 | 3 | 9% | 11% |
| WWC | 11 | 9 | 82% | 1 | | 1 | | 1 | 9% | 10% |
| Whitman | 7 | 7 | 100% | | | | | 0 | 0% | 0% |
| Whitworth | 13 | 11 | 85% | 1 | 1 | | 1 | 1 | 8% | 8% |
| Independents | 157 | 100 | 64% | 20 | 16 | 20 | 10 | 30 | 19% | 22% |
| Total | 565 | 330 | 58% | 62 | 45 | 124 | 41* | 165* | 29% | 33% |
| % Total | 100% | 58% | | 11% | 8% | 22% | 7% | 29% | | |

Four students failed to report a start college: 1 each at WSU, TESC, UPS, and UW.

* Actual survey results. It is estimated that 16 additional students took classes at a community college while enrolled at their bachelor's degree institution. Information on this pattern was only collected in the mail version of the survey. The estimate is based on the responses to the mail survey.

COMMITTEE MEMBERSHIPS

HIGHER EDUCATION COORDINATING BOARD TRANSFER STUDY ADVISORY COMMITTEE

Barbara Adams, Executive Vice President, Shoreline CC
Priscilla Bell, Dean of Student Services, Tacoma CC
Ruben Cedeno, Dean of Education Services, Pierce College
Barbara Chertok, Assistant Director of Admissions, Eastern Washington University
Ron Crossland, Associate Director, SBCCE
Bruce Haulman, Dean of Academic Education, Green River CC
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SBCCE SYSTEM REVIEW GROUP FOR BACHELOR'S DEGREE STUDY

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1988-89 ON-GOING SYSTEM REVIEW GROUP FOR SBCCE RESEARCH

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Business Affairs Commission: Jack Kalmbach, Centralia College
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