

## **International Community College Students: The Neglected Minority?**

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### **Introduction**

There are mutually beneficial outcomes for international college students coming to study in the United States. While the world's citizens may seek American higher education for its rich reputation of quality; postsecondary institutions generally welcome foreign students for reasons of diversity, student quality, and financial return. However, because of educational and governmental policies, getting an education in the United States is not an easy task for these students. International students are generally not eligible for any form of federal financial aid and are at a great disadvantage for many scholarships. At U.S. public institutions, international students are subject to a higher non-resident tuition and fee structure. Furthermore, the Student and Exchange Visitor Information System (SEVIS) requires international students to be enrolled full time and complete their study within the allotted student (F-1) visa period. Prospective international students must provide proof of financial resources and English proficiency prior to admission. Those who cannot meet English requirements or afford the high educational costs are unable to study in U.S. colleges and universities.

American higher education system has traditionally attracted approximately one-third of all international students globally. According to the Institute of International Education (IIE) (2004), there were 572,509 international students representing 4.3 percent of the total U.S. higher education enrollment, studying in colleges and universities during the 2003-2004 academic year. The majority of the international students came from India (13.9%), China (10.8%), the Republic of Korea (9.2%), Japan (7.1%) and Canada (4.7%) (IIE). Of these students, 68.8% were supported by their personal funds or their home countries whereas 23.9% received support from U.S. institutions or government (IIE).

Although the vast majority of undergraduate international students coming to the U.S. were attracted to the nation's top universities, almost one-third (28%) entered the American community college system in 2003-2004. Community colleges are public institutions of higher education with the traditional mission of welcome to all who might benefit without regard to previous academic achievement, wealth, status, or other demographic (Association of American Community Colleges, 2005). Currently, the U.S. has approximately 1,000 public community colleges that enroll over 5 million students each year. The formal definition of a community college is a two-year junior, preparatory or technical college that provides four categories of education:

- General education for degree and transfer
- Vocational education for employment
- Business assistance and contract education, and
- Interest based education for enrichment (Dougherty, 1994)

Compared to universities, the American community college system offers more lenient admission procedures along with lower tuition and fees, while providing the first two years of college level curriculum as well as vocational education options. Course offerings vary by state and campus, but many community colleges also offer a host of adult education courses including English as a Second Language.

Recently, community colleges have witnessed a drastic increase in international student enrollment. In fact, international student enrollments at community colleges have risen by approximately 60% in the last decade -- an increase that is double the overall growth for all postsecondary education institutions (Evelyn, 2005). There were 69,541 international students enrolled in community colleges during the 2003-2004 academic year (IIE, 2004). Despite the

relatively high numbers of students, very little is known about the international student studying in the community college. These rarely studied students are the subject of this manuscript. Why do they come to American community colleges? What are their educational goals? Finally, and perhaps most importantly, are these international students at community colleges successful in their academic endeavors?

This study utilizes survey and transcript data from one of the largest community college districts in the U.S., the Los Angeles Community College District (LACCD). The campuses included in this study, like all 109 of the California Community Colleges, are among the least expensive of all public American higher education institutions. California residents pay only \$26 enrollment fee per credit or unit for instruction. However, in addition to the enrollment fee, students from other states will pay a non-resident tuition of \$154 per unit for a year until they become California residents, while international students pay a higher non-resident tuition of \$164 per unit until they graduate plus a SEVIS student (F-1) visa processing fee. These differences are due to the funding structure of the system consisting of general state budgets, local property taxes and student fees (Focus: California Community Colleges, 1996). While this unit cost differential is broad, it must be emphasized that the rates of the California Community Colleges are still very affordable in comparison to the rest of the public and private postsecondary systems. As such, community colleges remain an attractive and affordable alternative for international students.

### **Review of the Literature**

A true definition of an international student is one who has come to the U.S. on a visa specifically for educational purposes and is registered at an accredited institution (Desruisseaux, 1998). Immigrants, refugees and foreigners that are permanent residents of the U.S. are not

included in this definition (Desruisseaux). In response to why international students may enroll in community colleges, *The Chronicle of Higher Education* has suggested that they are attracted because they “see advantages in a less-expensive route to a four-year degree, an environment much more forgiving of English-language deficiencies, and student populations high in ethnic diversity” (Evelyn, 2005, p. A11).

### *International Students at American Community Colleges*

Community colleges have become the third largest educational destination for international students behind the Carnegie designations of research and master’s Institutions (IIE, 2003). However, for the first time in over 30 years, American higher education experienced a change in the pattern of increase of students. In the 2003-2004 academic year, there was a small, but noticeable decline in the overall number of international students (2.4%). However the decline for associate’s institutions was much greater—10 percent. This enrollment decline is speculated to be due to security changes, increasing costs of American education, competition in higher education opportunities from other countries, Asian economic turmoil, and increased quality of education within home countries (IIE, 2004). The tragic events of September 11, 2001 have led to increases and changes in security measures making it more difficult for international students to acquire a student visa. In fact, recent security policies have caused many countries to perceive the U.S. as “inhospitable” to international students (Bain & Cummings, 2005). Moreover, the ability of the U.S. to attract high numbers of international college students is increasingly impacted not only heightened security measures, but also by competition from other countries, like Australia and New Zealand.

### *American Community Colleges Benefits from International Students*

While it cannot be denied that education is a major source of income for the U.S. economy, there is concern that international students may be too often cast as a source of revenue for American educational institutions. In fact, foreign student education and international training in 2003-2004 was a 13 billion dollar industry, the fifth largest export in the country (IIE, 2004). While the financial benefits from international students are seen throughout the country, by far the state with the largest revenue is California. According to the *Open Doors 2004 Report*, through tuition, fees and living expenses, international students accounted for over a billion dollars of revenue for the state of California. Two community colleges in the top twenty for international student enrollment are located in the Los Angeles area -- Santa Monica College and Los Angeles City College. Santa Monica College has the highest enrollment of international students in the United States. The international student population at Los Angeles City College, one of the campuses included in this study, is 5.7% of the overall student body and generates nearly \$4 million dollars a year for the institution (Evelyn, 2005; IIE, 2004).

In addition to financial benefits that international students provide to the community colleges they attend, international students also add to campus culture and diversity. International students have the ability to provide their American counterparts with experience regarding global awareness, cultural sensitivity and diversity that might not otherwise be available (Chase & Mahoney, 1996; Desruisseaux, 1998). Faculty can draw on international students as resources in the classroom for diverse perspectives, creating what has come to be known as the “international student-as-teacher” (Ewing, 1992, p. 38).

In conclusion, the two advantages most commonly identified in the literature pertaining to international students are financial gain and increased diversity. With these important benefits

in mind, it should be clear as to why community colleges would like to keep their international student enrollment numbers high.

### *How International Students Benefit from Community Colleges*

International students are hopeful that study in the U.S. and the completion of an American degree will benefit them. Rao (1979) suggests that international students from developing countries may be especially attracted to American institutions due to the lack of quality educational resources in their home countries. Further, international students from developing countries may also be attracted by scholarships, grants, university opportunities and facilities, and the chance to see the world (Rao).

International students may be specifically attracted to community colleges because of their intent focus on teaching rather than research (Ewing, 1992). Small classes and specialized courses in intensive English and skills training may appear comforting to students contemplating leaving home for study abroad. Some internationals may view community colleges as an interim step on a path to acclimation of both a new country and a new educational system (Ellis, 1999).

*English-as-a-Second-Language Instruction (ESL)*. In response to a rising demand for ESL instruction by community college students, the percentage of community colleges that offer this training has increased in previous years. In a nationwide survey of community college students, Ellis (1999) found that nearly 89% of students whose first language was not English came to the community college to work on their language skills before taking more advanced courses. It must be noted that most four-year colleges and universities require evidence of a high level of English language proficiency, generally in the form of a TOEFL<sup>1</sup> score, prior to granting admission to international students. For those international students whose English skills are less competent, community colleges offer a chance to become immersed in an English speaking environment and acclimate to American culture, while simultaneously and formally working on English skills.

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<sup>1</sup> Test of English as a Foreign Language.

Specifically there are two distinct categories of English language programs-- academic ESL and adult ESL programs. The adult ESL program is generally designed to provide English skills for immigrants and others but is not formally tied to an academic structure. Many of the students within the adult ESL program do not have goals of advancing within the community college or of transferring to a university (Rance-Roney, 1995). On the other hand, the academic ESL is specifically designed as a transitional step for college students who require improvement of English skills prior to moving onto college level instruction in the discipline of choice. Obviously, academic ESL is a requirement that allows students to overcome their initial language barriers and reveal the range of their true academic capabilities (Bailey & Weininger, 2002). Blumenthal (2002) suggested that many of the international students enrolled in ESL courses have been well-educated in their native tongue and require English instruction only to better prepare themselves for academic work in the United States. In this way, the community college offers international students a chance to strengthen their skills so that the influence of their previous educational preparation can surface (Bailey & Weininger, 2002).

In conclusion, there are definite advantages that international students receive from study in the United States. Furthermore, those that choose to attend community colleges benefit from reduced tuition rates, in comparison to private and four year universities, more specialized instruction and ESL classes.

#### *Other Implications and Considerations*

Although there are distinct benefits to the globalization of education, there are ramifications both abroad and within the U.S. This section will explore the ramifications of potential “brain drain” and overcrowding that may result from the increase of international students in the U.S.

While it is now clear that higher education holds distinct advantages for both community colleges and international students alike, many of the student's home countries feel as if they are at a disadvantage. A significant concern surrounding the topic of globalization of education is "brain drain" of the home country (Rao, 1979). Each year a significant number of international students choose to take advantage of advanced educational or career opportunities in their host country rather than immediately returning to their home countries. In this way, the investment of the international student's education towards the advancement of their native society becomes delayed or even non-existent if they chose to stay in the U.S. permanently. Thus, by granting permission for many of their brightest and most promising students to study abroad, countries may be depleting their "brain power" of the future. As Rao states, "non-returning students go abroad ostensibly for education and training, and after completing studies they decide not to return home and disappoint their home and host governments" (p. 16). In response, international governments have stepped up requirements and tightened policies for students leaving to study in more developed countries. Because both sending and receiving governments have tightened their requirements simultaneously, postsecondary education has become more difficult to acquire for international students (Rao).

Finally, it must also be noted that larger proportions of Americans are seeking college. Among high school seniors, 96 percent plan on attending college sometime in their lifetime (U.S. Department of Education, 1995). With this in mind it is not surprising that American college enrollment is at an all time high, with over 15.9 million students enrolled in the fall of 2001, with the expectation that these numbers will continue to increase in the future (National Center for Education Statistics, 2003). Thus, seats in American universities that may have been previously occupied by internationals are now being claimed by U.S. citizens. As American higher

education becomes increasingly crowded, more U.S. citizens and taxpayers are favoring admission policies that give preference to citizens. Overall, the globalization of education, while resulting in numerous opportunities, has created some disadvantages as well, like “brain drain” and overcrowding. These disadvantages add to the inherent difficulties for international students hoping to study in the U.S.

The current study includes a large number of international students enrolled in one community college district with nine separate campuses. The study seeks to better understand not only the goals and motives of these students but also to test the assumption that the community colleges have acted as an access bridge to the American college system.

## **Methodology**

### *TRUCCS Project*

This study is being conducted as part of the Transfer and Retention of Urban Community College Students (TRUCCS) Project. TRUCCS is a five-year initiative to study the goals, success, and academic patterns of community college students. TRUCCS seeks to identify the factors that promote success of different types of community college students, specifically within an urban setting, the Los Angeles Community College District (LACCD). Whereas many studies of community college students employ traditional definitions of achievement (i.e., transfer to a four-year university), the TRUCCS initiative seeks to foster new definitions more consistent with, and applicable to, urban community college students.

### *Data*

The TRUCCS Project uses multiple datasets to answer research questions. The data for this study was derived from a large representative survey conducted by the LACCD in the fall of 2000, coupled with analyses of these student’s transcripts (i.e., enrollment records).

*Sampling.* The 103 question instrument was administered during classroom time to a randomly selected group of classes. This procedure maximized participation and representation. The sampling was accomplished through a random number generator and applied to the semester inventory of classes. Sampling frames were varied by college so as to ensure large enough samples for the smaller colleges while limiting sizes (and costs) at the large institutions. The sample for this specific study is 466 international (F-1 visa) students studying at the Los Angeles Community College District plus another group of 17, 276 traditional (non-international) students that serve for purposes of comparison.

*Data Analysis* To understand the international students in the Los Angeles district, we coupled survey responses with college enrollment history records. The aforementioned survey administered by the LACCD in the fall of 2000 provided the background demographics, satisfaction, and family background information. We analyzed the transcripts to ascertain grades, course completion, course taking patterns, transfer readiness and other indicators of success. In this manuscript, we provide a complete descriptive profile of these international students along with more inferential data mining techniques.

*Results* Chi square analyses were used to look at how international students at the community colleges in the LACCD compare with their domestic counterparts in terms of demographic information and educational aspirations.

Results from an exploration of demographic characteristics indicated that international students differ from other community college students in many ways, both within the personal and the educational domains. First, international students at the community college are more likely to be concentrated between the ages of 20-34 (78.7%) whereas other community college students are traditionally more evenly spaced across age ranges (see Table 1).

Age	Under 20	20-24	25-34	35 and older
Non-International Students (% of total)	4095 22.4%	5189 28.4%	4617 25.2%	4391 24%
International Students (% of total)	74 15.9%	206 44.2%	161 34.5%	25 5.4%

Table 1. Chi-Square analyses of age differences of non-international and international students. Results  $\chi^2=129.4$  (  $df=4$ ,  $P < .001$ ).

International students are more likely to be single (88.3% as compared to 65.5%). Similarly, few internationals are parents; only 5.2% of the internationals and 27% of the domestic students reported having children. Full-time enrollment of 12 or more units is the general norm for international students (83%) while domestic students were divided between part-time (54.5%) and full-time (44.9%) enrollments. These results, of the tendency of international students to enroll full-time, is supported by the additional finding that international students enroll in an average of 12.29 units per semester, as compared to 8.93 units per semester for domestic students (see Table 2, Figure 1). Understandably, international students are not only enrolling for more credits per semester but are also staying enrolled the community college for fewer semesters overall. Results indicate that international students enroll for an average of 6.12 semesters; significantly less than the average enrollment for non-internationals students (of 12.25 semesters).

Student	Semesters Enrolled Mean (Median) <sup>a</sup>	Units Per Semester Mean (Median) <sup>b</sup>
International	6.12 (6)	12.29 (12.17)
Non-International	12.25 (9)	8.93 (8.8)

Table 2. Enrollment differences of non-international and international students as compared by mean across semesters.

<sup>a</sup>  $T_{(724.49)}=34.65$ ;  $p<.001$

<sup>b</sup>  $T_{(465.71)}= -24.41$ ;  $p<.001$

With respect to ethnicity, international students in this district were predominantly Asian (81.9%) whereas domestic students were divided between identifying as Hispanic/Latino

(45.8%), White (19.5%), African American (16.1%) and Asian (13%). Although females accounted for more than half of the international students (54.7%), among the non-international students, the proportion of females was much higher (62.4%). An analysis of language mirrors the ethnic distribution of the international students in the community colleges of the LACCD (see Table 3).

Language	English	Armenian	Chinese	Japanese	Korean	Spanish	Vietnamese	Other
Non-International	11,006 60.7%	602 3.3%	418 2.3%	35 .2%	170 .9%	4274 23.6%	191 1.1%	1,435 7.9%
International	25 5.4%	3 .6%	107 23.1%	108 23.3%	69 14.9%	24 5.2%	11 2.4%	117 25.2%

Table 3. Chi-Square analyses of language differences of non-international and international students.  $X^2=5078.7$ ,  $df=10$ ,  $p<.0001$

Results also differed amongst students and their choice of subject area (see Table 4).

International students were most interested in Computers (26.4%), Business (16.1%) and Fine Arts (15.9%) whereas domestic students were more divided across subject area (see Table 4).

Area of Interest	Social Sciences	Math/Life Sciences	Business	Computers	Language, Humanities	Health Occupations	Family/Child Development	Trades Technology	Fine Arts
Non-International	2,010 11%	1,264 6.9%	2,218 12.1%	2,302 12.6%	954 5.2%	1,865 10.2%	1,883 10.3%	878 4.8%	1,283 7%
International	19 4.1%	48 10.3%	75 16.1%	123 26.4%	28 6%	19 14.1%	8 1.7%	10 2.1%	74 15.9%

Table 4. Chi-Square analyses of academic areas of interest of non-international and international students.  $X^2=221.4$ ,  $df=12$ ,  $p <.001$ ).

Taking a closer look at math, a traditionally difficult subject area for community college students, results show differences in course-taking patterns. The TRUCCS Project has categorized math courses in accordance with purpose and level (see Table 5). Specifically, those math courses at college level that are acceptable for transfer credit are labeled as level 3. Those courses that are prerequisite to level 3, and are below college level are labeled as level 2 and so on. As Table 5 indicates, international students (63.3%) are more likely to be enrolled in higher level mathematics courses (level 3) than their domestic counterparts (38.9%).

Level Label	Prerequisite	Example	Proportion of Initial Enrollment	
			Non-international Students	International Students
Level 3: College	Level 2	College Algebra	6725 38.9%	295 63.3%
Level 2: Intermediate	Level 1	Intermediate Algebra	2677 15.5%	40 8.6%
Level 1: Basic	Level 0	Introductory Algebra	2980 17.2%	18 3.9%
Level 0: Remedial	None	College Arithmetic	1561 9%	3 0.6%
No Attempts			3333 19.3%	110 23.6%

Table 5. TRUCCS Math Nomenclature & Analyses of Math course-taking for non-international and international students.  $X^2=648.1$ ,  $df=4$ ;  $p<.0001$

Similar to mathematics, the TRUCCS Project has a nomenclature and hierarchy for English. ESL and English have been intricately interlinked in the LACCD. While some campuses had ESL listed as a separate department, others included it in the English Department. Table 6 provides the levels and examples of course offerings as well as the proportion of international students who began their community college instruction at that specific level.

Level Label	Prerequisite	Example	Proportion of Initial Enrollment	
			Non-international Students	International Students
Level 3 College	Level 2	English Composition	2389 13.8%	55 11.8%
Level 2 Intermediate	Level 1	English Grammar Fundamentals	2242 13.0%	37 7.9%
Level 1 Basic	Level 0	Reading and Writing	4068 23.5%	166 35.6%
Level 0 Remedial	None	Basic Vocabulary	5692 32.9%	133 28.5%
No Attempts			2885 16.7%	75 16.1%

Table 6. TRUCCS English Nomenclature & Analysis of English-ESL course-taking for international and non-international students.  $X^2=40.4$ ,  $df=3$ ,  $p<.001$

Of all international students who began below college level (72% of the sample), 55% eventually passed courses at the college level. The median time to achieve college level was 2 semesters. However, the range of times extended to 16 semesters (8 calendar years).

Quantitative analyses also included a comparison of GPA and success ratios for domestic and international students, as seen in Tables 7 and 8. Table 6 shows that the average cumulative GPA for international students in the sample was 2.93, significantly higher than the cumulative GPA of non-international students of 2.58.

Students	N	Mean	Standard Deviation	Standard Error of the Mean
Non-International	17276	2.58*	.813	.006
International	433	2.93*	.685	.033

*Table 7. T-Test for GPA of international vs. non-international students. \*Results found to be significant,  $t(18) = 8.86, p < .05$ .*

Another measure of success is course completion. The TRUCCS Project uses a simple formula, entitled the success ratio that indicates the proportion or percentage of courses that a student successfully completes as compared to the number of courses in which the student enrolls. Mathematically, the calculation is:

$$\frac{\text{Number of courses with the grade of A, B, C or P}}{\text{Number of courses of enrollment}}$$

Note that the success ratio denominator includes the number of attempted courses. The ratio provides the proportion of the student's goal that was successful. Using this measure, international students had a higher success ratio of .89 as compared to .83 for domestic students (see Table 8).

Students	N	Mean	Standard Deviation	Standard Error of the Mean
Non-International	17011	.8268*	.18846	.00144
International	435	.8917*	.15933	.00764

Table 8. Analyses of success ratios for non-international and international students. \*Results found to be significant,  $t(44) = 7.12, p < .001$ .

A tally of questionnaire responses indicated that international community college students have high goals (see Table 9). The majority desire to transfer to a four-year institution. It is notable that the long-term goals identified by the international students at the community colleges are quite similar to those identified by their domestic counterparts.

	International (%)	Non-International (%)
Goal to transfer to a 4-year college	79.0	77.4
Goal to obtain an Associate's Degree	55.4	56
Goal to obtain a license or certificate	32.5	34.1
Goal to obtain a Master's Degree	35.7	41.1

Table 9. Expressed goals by international and non-international students

In light of the large proportion of students claiming to have the goal of transfer, our final analysis included a tabulation of the proportion of students who actually were prepared. We coded all students who had accrued 64 units of credit with the grade of “C” or better plus successful completion of both transfer level English and Mathematics as being transfer-prepared. Note that the transcripts analyzed allowed us to view the full enrollment histories of the students. While the surveys were administered in 2000, many of the students had been actively enrolled previously to that date. In addition, the final transcript harvest occurred in 2004, giving all students the minimum of 4 years of enrollment time (see Figures 2a & 2b). We limited our inquiry to only those students who indicated that their goal was transfer. As Table 10 shows, despite their reported desire to transfer, less than half of the international students (41.6%) were transfer ready. However, this percentage is still higher than the 32.3% of domestic students who were prepared to transfer.

	Transfer-prepared		Total
	Not-Prepared	Prepared	
Non-International	7739 67.7%	3686 32.3%	11425 100.0%
International	202 58.4%	144 41.6%	346 100.0%

*Table 10. Crosstabulation of transfer prepared by international status*  
 $X^2=19.3, df=1, p<.001$

## Conclusions

Despite a slight dip in recent enrollments and concerns over international security and “brain drain”, international students and the American higher educational system have developed a mutually beneficial relationship (Bain & Cummings, 2005; Rao,1979). More specifically, community colleges have become increasingly attractive to this distinct group of students because of their flexibility, support and financial feasibility (Evelyn, 2005).

This study took place in the state with the highest concentration of international students (IIE, 2004) and looked specifically at international students in community college in Los Angeles. Overall, analysis of transcript data indicated that, when looking at cumulative performance of all students at the community college, international students are performing slightly better academically than non-international students. Results also indicated that there are important differences and similarities that exist between international students and the more traditional domestic students.

Expected differences include the fact that international students at the Los Angeles community colleges are likely to be between the ages of 20-34, single and without children, of Asian ethnic descent and are also likely to have lived in the U.S. for five years or less. International students are also likely to be enrolled at their respective community college on a full-time basis, for a shorter amount of time than domestic students, seeking help in English or

Math skills and interested in studying predominantly computers, business or fine arts. These results suggest that international students may spend less time at the community college because they have specific SEVIS student (F-1) visa requirements and academic goals upon enrolling.

Despite these differences, important similarities were also found between international students and their domestic counterparts. Results indicated that, in terms of degree aspiration, all community colleges in the LACCD had relatively similar interests in pursuing a certificate or associate's degree, for obtaining a bachelor's or master's degree and for transferring to a four year college or university. Unfortunately, even with these similar aspirations, results also showed that less than half of international students (41.6%), and even fewer domestic students, were actually ready to transfer.

These analyses provide evidence that many of those entering the community colleges with insufficient English skills are able to perform at the college level with time. Community colleges have indeed acted as an access bridge to the American college system for international students. Given that there is sparse quantitative research on the educational performance of international community college students, these analyses provide valuable insights to those who are interested in the success of these important students.

## References

- American Association of Community Colleges (2005). Retrieved May 13, 2005, from <http://www.aacc.nche.edu>
- Bailey, T. & Weininger, E. (2002). Performance, Graduation, and Transfer of Immigrants and Natives in City University of New York Community Colleges. *Educational Evaluation and Policy Analysis*, 24(4), 359-377.
- Bain, O. & Cummings, W. (2005). Where Have the International Students Gone? *International Educator*, 14(2), 18-26.
- Blumenthal, A. (2002). English as a Second Language at the Community College: An Exploration of Context and Concerns. *New Directions for Community Colleges*, 117, 45-53.
- Carey, T. (2005). Consider a Community College When Studying in the United States. *Special Supplement: American Community Colleges*. Retrieved May 10, 2005, from <http://www.internationalstudentguidetotheusa.com>.
- Chase, A. & Mahoney, J. (1996). *Global Awareness in Community Colleges: A Report of a National Survey*. Washington, D.C: American Association of Community Colleges.
- Desruisseaux, P. (1998, December 11). 2-Year Colleges at Crest of Wave in U.S. Enrollment by Foreign Students. *The Chronicle of Higher Education*, p. A66.
- Dougherty, K. (1994). *The contradictory college: The conflicting origins, impacts, and futures of the community colleges*. Albany, NY: State University of New York Press.
- Editorial (2005, February 28). Keep the Brains Coming In. *Boston Herald*.
- Evelyn, J. (2005, February 11). Community Colleges Go Globe-Trotting. *The Chronicle of Higher Education*, L1 (23).
- Ewing, R. V. (1992). *A supportive environment for international students: Volume II*. Washington, DC: American Association of Community Colleges.
- Focus: California Community Colleges (1996). California Community Colleges Chancellor's Office (Online). Retrieved May 20, 2005, from, <http://www.cccco.edu/cccco/gen/cccfoc.htm>.
- Institute of International Education (1993-2004). *Open Doors: Report on International Education Exchange*. Retrieved May 25, 2005, from <http://opendoors.iienetwork.org>.

Los Angeles Community College District (2003). Retrieved May 20, 2005, from <http://research.laccd.edu/>

National Center for Education Statistics (2003). Retrieved May 13, 2005, from <http://nces.ed.gov//programs/digest/d03/#5/>.

Rance-Rooney, J. (1995). *Transitioning Adult ESL Learners to Academic Programs*. Adjunct ERIC Clearinghouse for ESL Literacy Education. ( ERIC Document Reproduction Service No. 385173).

Rao, G. L. (1979). *Brain Drain and Foreign Students: A Study of the Attitudes and Intentions of Foreign Students in Australia, the U.S.A., Canada, and France*. New York: St. Martin's Press.

U.S. Department of Education, National Center for Education Statistics (1995). *Digest of Education Statistics Tables and Figures*. Retrieved May 13, 2005, from <http://nces.edu.gov/programs/digest/d95/dtap141.asp>.

**Appendix.**

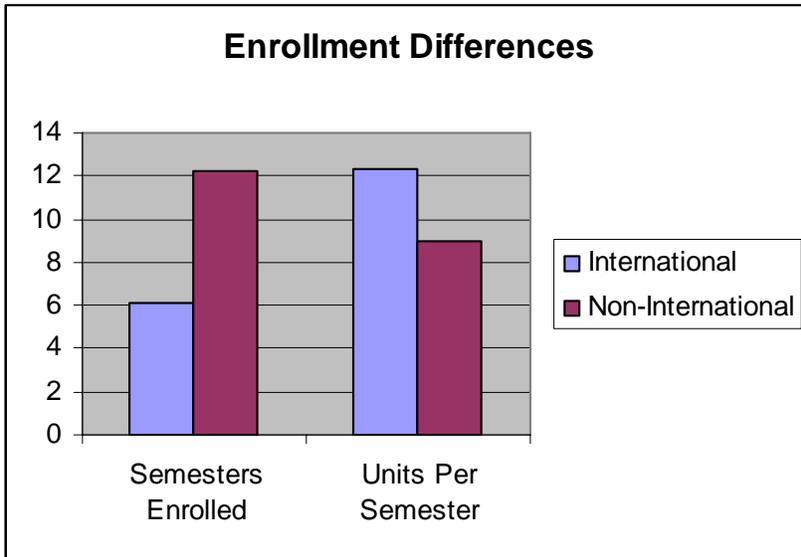


Figure 1. Enrollment differences of non-international and international students as compared by mean across semesters.

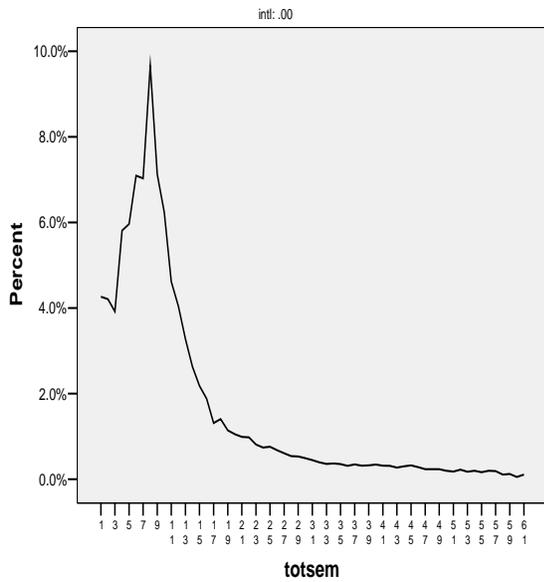


Figure 2a. Total # of semester enrolled by non-international students

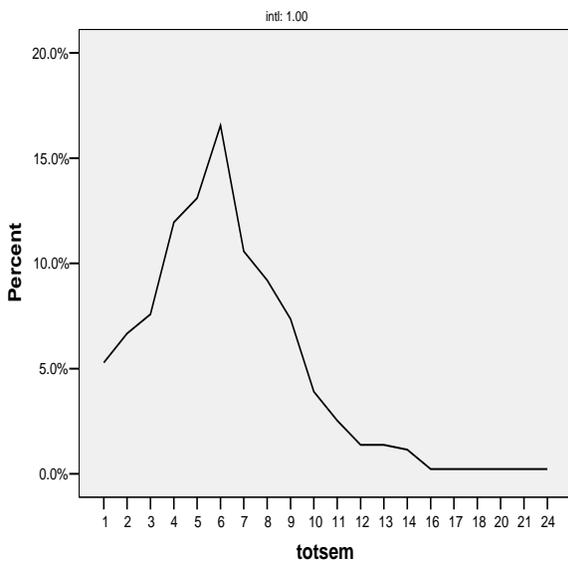


Figure 2b. Total # of semester enrolled by international students