The Critical Success Factors of Transfer Student Success at a Four-Year University

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Abstract

In the U.S., approximately 20% of graduating engineering students receive their university degree after transferring from a community college. Because the percentage of transfer students enrolled in California universities is higher than the national average, in 2016, the California State University (CSU) System launched the Graduation Initiative (GI) 2025 to raise graduation rates for transfer students. The CSU GI 2025 set goals to increase the two-year transfer graduation rate to 45% and the four-year transfer graduation rate to 85% by 2025 across all 23 CSU campuses. What has yet to be discussed extensively is which factors affect the transfer students' success and its associated impact. This paper identified the critical success factors (CSFs) for transfer students' success with the survey responses by transfer students in the Department of Civil Engineering at California State Polytechnic University, Pomona (Cal Poly Pomona). Identifying the CSFs is essential as sociocultural, academic, and environmental factors significantly affect transfer students' academic performance. The author composed a series of questions that fall into sociocultural, academic, and environmental factors (this survey was approved by the CPP IRB 23-003). A total of 41 transfer students responded to the survey, and the author identified CSFs for transfer students as 1) a sense of belonging, 2) networking with faculty, staff, and peers, and 3) advising for career development and available resources from the university. The identified factors should be addressed when the university develops a new program for transfer students.

Introduction

The State of California, which has the most extensive education system in the U.S., has three different higher education systems: 1) the University of California (UC), 2) California State University (CSU), and 3) California Community College (CCC). The primary mission of the CCC is to provide affordable education for the community, and the mission of the California State University (CSU) system is to produce a quality workforce for the community. A total of 116 CCCs attract many students with affordable education expenses and high accessibility (close to the home). In the U.S., approximately 47% of graduating engineering students received their university degree

after transferring from a community college [1]. However, transfer students in the STEM (Science, Technology, Engineering, and Mathematics) discipline are required to spend extra years (i.e., longer than two years) at a university to obtain their bachelor's degree due to the challenges including transfer preparation, university system, and having the needed resources. In the California State University system alone, 40.4 percent of transfer students graduate in 2 years, and 77.5 percent graduate in 4 years [2]. Moreover, transfer students' academic performance (i.e., GPA, the two-year/four-year graduation rate, retention rate, and years-to-degree) is significantly affected by many factors, including sociocultural-, academic-, and environmental factors.

The primary objective of this study is to identify the challenges transfer students face in achieving their academic goals and expectations. In addition, the study assessed the impact of the factors on transfer students' performance and success. Lastly, the study identified an understanding of what further action a university can take to support and improve transfer students' success.

To achieve the objectives, the author conducted a literature review of the publications to identify prominent factors among transfer students. Then, the author developed a survey questionnaire to understand the transfer student's experience at a four-year institution and distributed it to transfer students in the Department of Civil Engineering at California State Polytechnic University, Pomona (Cal Poly Pomona). The survey consisted of questions covering four categories: 1) demographic background information, 2) academic performance, 3) institutional experiences, and 4) commitments and supports. Upon analyzing the data, the author documented a list of CSFs for transfer students' success and demonstrated how the CSFs have affected transfer students' success at a four-year institution. Based on the research findings, the university can prioritize its resources to enhance transfer students' success and offer a new program to ensure their success.

Literature Review

Several prior studies have addressed different factors affecting transfer students' success at a four-year institution. This section summarizes three factors: 1) Sociocultural and Equity Factors, 2) Environmental Factors, and 3) Transfer Factors.

Sociocultural and Equity Factors

The first factors related to the sociocultural (i.e., family responsibilities, work obligations, community service participation) and equity (i.e., age, first-generation, under-represented minority,

international) impede transfer students' success [3-7]. This is because sociocultural obligations are significantly associated with low academic performance [5], and equity-related factors such as first-generation allow limited advising to navigate the college system for their academic success [4, 5].

In addition, different equity layers create a barrier that setbacks transfer students from achieving their academic goals. Many transfer students encounter economic-related factors (i.e., working on campus or off campus, number of hours worked, financial aid resources) that pull them further from earning their bachelor's degrees. Students who work on campus are more likely to interact with faculty and their peers, whereas students who do not, have a more challenging time integrating with the campus [3]. Thus, economic factors weigh significantly on transfer students' success, as having access to financial aid resources and information helps alleviate financial concerns for transfer students [8].

Environmental Factors

Transitioning from community college to a university setting is a drastic change. Therefore, understanding the environmental factors that play a part in transfer student success is critical in determining what changes the university can make to increase academic performance in terms of GPA, years-to-degree, and retention rate. Specifically, previous studies identified two types of environmental factors about institutional (i.e., sense of belonging, campus involvement, academic integration, overload of upper-division courses, transfer credit loss) and faculty/staff (i.e., faculty-student interactions, faculty mentor, academic advising, monitoring transfer student progress) [10-15].

Since transfer students seek a sense of belonging and campus involvement to feel part of a community, universities that promote student involvement and have a peer mentor program enhance student retention rate [9-11]. This indicates that transfer students who feel a sense of belonging integrate academically and socially into their campus. On the other hand, upper-division courses that cause overload may impact transfer students by causing them to have unsuccessful academic and social integration on campus [12]. This is a disadvantage for transfer students. They are more likely to take an overload of upper-division courses because they have completed all General Education (GE) requirements. This can result in students harming their GPA and on-campus involvement due to being unacquainted with taking high-load courses.

Interacting with faculty and staff is essential in building a professional relationship and achieving academic goals. First-time Freshman Students (FTFS) have enough time to develop professional relationships with the faculty members within their first year or two. However, transfer students are restricted with time and need to form professional faculty and staff relationships immediately when they transfer to build their relationships. Spending time, interacting, and having a faculty mentor benefits a student's future development and educational success [7]. In addition, spending time and interacting with academic advisors is significant in students continuing and staying on track with their degree program. Creating a supportive relationship, providing resources, and monitoring student progress improves transfer students' outcomes [7], [14]. Therefore, institutional and faculty/staff-oriented are environmental factors crucial to transfer students achieving their academic goals.

Transfer Factors

The transfer process-related factors (i.e., academic advising, transfer pathway, Associate Degree for Transfer (ADT), Associate Degree(s), transfer shock) require guidance, commitment, and patience. For example, Kicker's case study emphasizes that community colleges and universities must work together to sustain a working partnership in establishing an effective transfer partnership [16], [18]. Other previous studies showed that if transfer policies implemented a system that accepts upper-division courses, transfer students would have a smoother transition that ensures transfer student's success [15]. Additionally, the Associate Degrees for Transfer (ADT) "does not guarantee completion of all prerequisite courses for an intended major but will allow a student to complete their general education courses and be in junior standing" [13]. In summary, a collaboration between universities and community colleges ensures a smoother transition for transfer students, producing higher academic performance after transferring.

Next, transitioning to a large four-year institution campus could be a shock to transfer students. The number of students to faculty/staff ratio is different from what students once were accustomed to, and they can have a more challenging time interacting with faculty and staff to seek advice. In addition, small class sizes in a community college, compared to large university class sizes, affect students' sense of preparedness and create a feeling of isolation [17]. Hence, transfer students experience transfer process-related factors that can affect their academic success.

Breaking down each factor and going into depth provides a better understanding of what each factor means and how it can prevent students from accomplishing their academic goals and expectations. Based on which factor is affecting transfer students' performance to achieve academic success, the author developed a survey questionnaire to identify critical success factors (CSFs).

Methodology

Transfer students face challenges that interfere with achieving their academic goals and expectations. To identify these challenges, the author composed a series of questions that fall into different factor categories, including equity-, sociocultural-, economic-, environmental-, and transfer (academic)-categories. Then, the author distributed the survey using Qualtrics to collect the transfer students' responses.

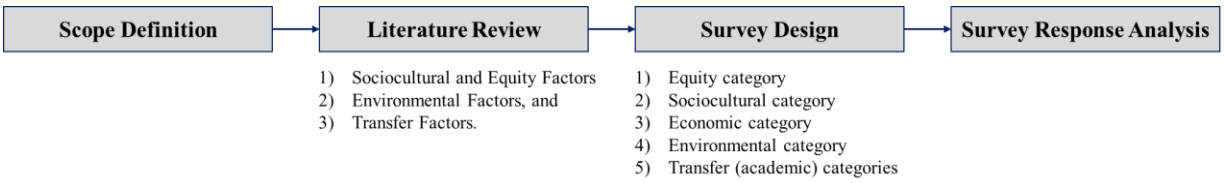

Figure 1. Research Methodology

- Equity Category: The author developed questionnaires to understand the background information of the respondents (transfer students), such as name, ethnicity, and equity status.
- Sociocultural Category: The author developed questionnaires to assess workloads and availability, such as employment type (on-campus/off-campus), number of hours per week, and reason for the work.
- Economic Category: The author developed questionnaires to assess available financial information and identify financial barriers at school.
- Environmental (Institutional-related) Category: The author developed questionnaires to evaluate the impact of a university setting on environmental factors, such as childcare, housing, networking, sense of belonging, and credit transfer.
- Environmental (Faculty/Staff-related) Category: The author developed questionnaires to assess how faculty/staff support a transfer student's success, such as the frequency of

meetings with faculty/staff at a previous institution (community college) and Cal Poly Pomona (a four-year institution).

- Transfer Process Category: The author developed a questionnaire to evaluate the transition from a community college to Cal Poly Pomona and the impact of the transfer process on their academic experience, such as Associate Degree for Transfer (ADT), Transfer Pathway, and advising structure.

Results

The survey was administered to the transfer students in the Departments of Civil Engineering and Mechanical Engineering in November and December 2023. A total of 41 students responded to the survey, and the five-scale option (1 for Strongly Disagree, 2 for Somewhat Disagree, 3 for Neither Agree or Disagree, 4 for Agree, and 5 for Strongly Agree) has been used for Category 3 (Economic Category) and Category 4 (Environmental Category).

1. *Background*
   - 29 students (70.7%) earned an Associate Degree (or an Associate Degree for Transfer) before transferring to Cal Poly Pomona, and six students (14.6%) transferred from a four-year university.
   - 21 students (51.2%) were First-generation students, 18 students (43.0%) were Underrepresented minorities (URM), and four students (9%) were Parents/students.
   - 30 students (73%) have work responsibilities besides school. They work off-campus (70%), on-campus (27%), and are self-employed (3%).

2. *Critical Success Factors*

   The students ranked the critical success factors as follows:

   1) Academic performance (GPA, units completed, Years-to-Degree, etc.)
   2) Networking (i.e., faculty, students, extracurricular activities)
   3) Advising (i.e., academic, professional, and financial)
   4) Financial resources
   5) Credit transfer
   6) Sense of belonging

7) Housing
8) Child care

3. *Economic Category*

1) CPP has provided me with enough financial resources to cover the cost of tuition. (3.39 out of 5.00)
2) I received sufficient financial aid information from CPP. (3.39 out of 5.00)
3) I worry my financial aid will end before I graduate. (3.07 out of 5.00)

Regarding the economic category, the majority of the CPP transfer students received financial resources (e.g., scholarships, stipends, financial aid, etc.) to cover their education costs. That's why fewer students were worried about financial aid.

4. *Environmental Category*

1) I am persistent in completing my academic degree. (4.84 out of 5.00)
2) I feel a sense of belonging at CPP. (3.94 out of 5.00)
3) I feel that I have successfully integrated into CPP. (3.81 out of 5.00)
4) I am consistent with my time management. (3.86 out of 5.00)
5) CPP has promoted transfer student involvement during my time here. (3.68 out of 5.00)
6) I am satisfied with my current academic performance. (3.52 out of 5.00)
7) CPP collaborated with my community college to ensure an effective transfer partnership. (3.45 out of 5.00)
8) I had trouble during my first semester due to having an overload of upper-division courses. (3.36 out of 5.00)
9) I have utilized a program(s) for transfer students offered by the CPP. (3.34 out of 5.00)

Regarding the environmental category, overall, transfer students are eager to complete their degree at CPP and feel a sense of belonging there. Also, with many transfer-related programs, a relatively low percentage of the students had trouble during their first semester at CPP.

5. *Transfer Pathway Category*

Table 1. The frequency of the meeting

No.	Frequency	After Transferring (Cal Poly Pomona)		Before transferring
		With Faculty	With Advisor	
1	Once a month or less frequent	44%	60%	60%
2	More than once a month	24%	15%	25%
3	Never meet	32%	25%	15%

Conclusions and Discussions

The author surveyed the transfer students at Cal Poly Pomona to identify critical success factors (CSFs), such as sociocultural, academic, and environmental factors, and assess the resources needed for transfer students' success. According to the Critical Success Factors (CSFs) rank by the 41 transfer students, they were concerned more about academic performance (e.g., GPA) than the sense of belonging to the university. This is because the 41 transfer students feel a sense of belonging at Cal Poly Pomona (CPP), and the students are successfully integrated into CPP.

The transfer students value networking with faculty, staff, and peers more. However, students' meetings with faculty/staff are less frequent than in community colleges. In addition, more transfer students never met their faculty/staff advisors after transferring, so more close support is needed.

The author plans the following recommendations for future works:

- to perform the same CSF survey in future years to compare the outcomes,
- to perform the same survey with juniors who just transferred to CPP, and
- to conduct the CSF survey to other disciplines across the campus.

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