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# Are Community College Students' Transfer Choices Impacted by Their Perceptions?

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## Abstract

This investigation examined the influence perceptions play in the transfer decisions of community college students. Studying this problem provided insight which facilitated the transition from two- to four-year university and helped retention efforts. A quantitative method was used, employing an anonymous Likert survey. Two hundred and eight Early Childhood Education students received an invitation to participate in the research project via a link to the anonymous survey. Thirty-two percent of the urban community college students invited to participate did so. A descriptive picture of the participant sample was painted using frequency tests. Analysis of the relationships between the dependent variable (the decision to transfer) and the independent variables (perceptions) was completed using Kruskal-Wallis tests, and the correctness of these outcomes was established using Pearson correlations. Finally, multiple regressions were used to ascertain the predictability of a researcher-created transition/barrier perception model. The Kruskal-Wallis tests revealed there was a statistically significant relationship between students' perceptions and their decision to transfer. Furthermore, the Pearson correlations confirmed the Kruskal-Wallis findings. The results of the regressions indicated the model created by the researcher was a predictor for community college students' transfer decisions. In the end, the data reinforced the idea perceptions of urban community college students impact their decision to transition into a four-year private university.

**Keywords:** decision making, retention, barriers, transitions, Schlossberg

## Introduction

Early education for young children has a positive influence on their cognitive and social development; this has major implications for the welfare of the people in this country (Barnett, 2004; Heckman, 2011). The quality of Early Childhood Education (ECE) programs is closely correlated with the education level of the classroom instructors teaching in them. The programs filled with teachers who have earned bachelor's degrees are known to be of superior quality (Bueno, Darling-Hammond, & Gonzales, 2010). Due to the gains children have enjoyed by participating in ECE programs with well-trained teachers, Congress passed a mandate which required 50% of all ECE public-school head teachers to gain certification in four-year teacher education programs. The result of this policy is a shortage of ECE teachers (Bueno et al., 2010). One answer to this problem could be to tap into the vast number of community college ECE associate's degree students. If these students could be encouraged to transition into four-year universities, they would be able to attain bachelor's degrees and subsequent teacher certifications. However, this transfer does not often happen (Townsend & Ignash, 2003). Even though students claim they want to move on into four-year universities, the number of students who decide to

transition is low (Handel & Williams, 2012). An examination into the causes for the low number of transfers may provide answers to why there is a discrepancy.

Transitioning from community colleges to four-year universities seems practical, yet the statistics tell a different story. Forty-seven percent of students who graduate from high school enter community colleges. Eight out of 10 of these students begin with the intent of transitioning from their community college into a four-year institution (Handel & Williams, 2012). Despite the high number of students who want to transfer, only 25 to 35% of them end up making the transition, and of this small number, 45% go on to complete their bachelor's degree (Handel & Williams, 2012). Transfer and retention research suggest that academic, social, and economic barriers are the cause of the low transfer success rates (Chrystal, Gansemer-Topf, & Laanan, 2013; Davies & Casey, 1999; Flaga, 2006; Handel & Williams, 2012; Laanan, 1996; Townsend & Wilson; 2006).

Schmertz and Carney's (2013) transfer/retention model catalogs the above-mentioned barriers. This model puts the obstacles that hinder success for transfer students into four categories: (a) academic, (b) social, (c) personal, and (d) financial. These categories are explained in more detail below (Schmertz & Carney, 2013).

- *Academic* integration difficulties involve the ability to attain passing grades, and the capacity of students to bond with new faculty.
- *Social* integration involves students' abilities to develop friendships, join in extracurricular events, and find and use campus resources.
- *Personal* transitional obstacles include students' well-being, their ability to part from their families, their competence in managing both school and work, and their motivation.
- *Financial* hindrances involve students' capacity to finance their education while still meeting the demands of both school and employment.

Research has revealed the more barriers undergraduates face, the less probable it is they will complete their four-year degrees (Bean, 1990; Bean & Metzner, 1985; Braxton, Hirschy, & McClendon, 2003; Schmertz & Carney, 2013; Tinto, 1988; Townsend & Wilson, 2009).

The barriers, as stated above, can be a prohibiting factor in the academic success of transfer students. But possibly even more critical are the perceptions that community college students have about these barriers. These perceptions might well impact transfer students' decisions to transition, hence precluding them from even considering this as an option in their educational path. According to Fishbein and Ajzen (2010), Plous (1993), and Robbins and Judge (2013), perceptions are powerful, and they can influence all decisions associated with them. Therefore, if community college students perceive obstacles as problematic, these perceptions are bound to have an impact on any decision they make about transfer into four-year universities. Hence, if programs were developed to give the students information concerning these barriers, this new knowledge could be used to alter misconceptions and open the door for them to transfer, starting these students down the road to becoming certified ECE teachers.

### ***The Central Quantitative Research Design Question***

The following research question directed this study: Are community college students' transfer choices impacted by their perceptions?

### ***Sub-Questions***

1. What are the perceived barriers that would hinder students' decisions to transition to City Private University (CPU)?
2. Can knowledge about students' perceptions be used to predict whether students will decide to transfer?
3. Can a new researcher-created model be utilized to determine the likelihood of Urban Community College (UCC) students' choice to transition to CPU?

### **Literature Review**

#### ***Background: The Need for ECE Teachers***

Great care must be taken when educating young children because they are the future of the modern society. "Stated simply, today's children will become tomorrow's citizens, workers, and parents" (Bales, Heckman, McEwen, & Rolnick, 2007, p. 1). It is therefore critical to make sure our youngest citizens are given every opportunity to succeed. Research reveals that if the care and education of young children were to begin in the earliest years of their lives, and if the programs these children attended were manned with well-trained teachers, the effect on children's lives would be profound (Calman & Tarr-Whelan, 2005). Hence, if every child is to succeed, each should have access to effective ECE programs (Bales et al., 2007). Yet, there are not enough specialized teachers to answer this calling.

#### ***Community College and Transfer***

With the shortage of quality ECE teachers looming, something must be done. It is important to find a group of people who have demonstrated a desire to work with young children to fill this workforce need. As community college ECE students have a discernable interest in working with young children, they are obvious candidates to continue into four-year teacher preparation programs. Therefore, promoting the transfer of these students into the four-year university system is one answer to the problem discussed above, the shortage of ECE teachers (Townsend & Ignash, 2003).

Community colleges play an important role in this country's post-secondary education (Wang, 2012). Historically, the main function of community colleges was to meet the needs of students who were not eligible for or interested in four-year institutions (Chrystal et al., 2013). Recently, however, this has changed, and students who customarily have attended four-year colleges have begun to choose to go to community colleges. It is believed this shift has occurred because community colleges are likely to be a less expensive option (Chrystal et al., 2013). Additionally, two-year schools are often considered less academically rigorous and have been found to be outstanding places for students to discover academic or job-related specializations before committing to four years of study (Chrystal et al., 2013). Consequently, admission at community colleges have increased dramatically, growing from 5.9 million to 7.0 million from 2000 to 2008 (Horn & Skomsvold, 2011). It is not surprising that by 2019 the anticipated community college enrollment is said to be upward of 8.2 million (Horn & Skomsvold, 2011).

Even with the growing community college enrollment, there are still advantages to four-year degrees. In fact, research conducted by Baum, Ma, and Payea (2010) showed students who earn bachelors' degrees have higher earning potential, are healthier, and have an increased interest in

pursuing social justice opportunities. These advantages illuminate the reasons why the vast majority of community college students do plan to transfer to four-year schools (Hagedorn, Cypers, & Lester, 2008; Radford, Berkner, Wheelless, & Shepherd, 2010). However, even with the expanding numbers of students who enter community colleges dreaming of transferring to attain bachelor's degrees, fewer than 13% actually go on to do so (Hagedorn et al., 2008; Radford et al., 2010).

### ***Transfer Barriers and the Schmertz and Carney Model***

Of the small number of transfer students who do go on to four-year institutions, many have not experienced success (Braxton et al., 2003). Scholars have found that barriers encountered by students can explain this retention failure (Bean, 1990; Bean & Metzner, 1985; Braxton et al., 2003; Tinto, 1988). The list of these problematic barriers includes credit transfer, culture shock, increased rigor, roadblocks to admission, and financial encumbrances (Chrystal et al., 2013; Davies & Casey, 1999; Flaga, 2006; Handel & Williams, 2012; Laanan, 1996; Townsend & Wilson, 2006). Due to these obstacles, only a small portion of the transfer students have gone on to graduate in four-year programs (Handel & Williams, 2012).

Explorations which have targeted retention and the barriers which have caused the problems with matriculation started with Tinto's (1988) theory of student departure (Bean, 1990; Braxton & Lien, 2000; Khuong, 2014; Schmertz & Carney, 2013). Since the completion of Tinto's work, retention theory has been refined, developed, and widely used by many scholars (Bean, 1990; Braxton & Lien, 2000; Braxton et al., 2003; Khuong, 2014; Schmertz & Carney, 2013). Using the information garnered from prior modifications of Tinto's theory (1988), Schmertz and Carney (2013) established a list of barriers proven to be a challenge for transfer students. They sorted this list of barriers to transfer retention into four categories: academic, social, financial, or personal, which are further explained below.

- Academic barriers include time management, connections with faculty, knowledge of university resources, increased rigor, and educational workloads (Braxton & Lien, 2000; Braxton et al., 2003; Schmertz & Carney, 2013).
- Social barriers involve relationships both with peers and with faculty and staff at the new institutions, and the ability of the students to merge into the ethos and community of their new four-year universities (Schmertz & Carney, 2013; Tinto, 1988).
- Financial concerns encompass students' ability to pay their educational and living expenses (Bean & Metzner, 1985; Schmertz & Carney, 2013).
- Personal barriers include enthusiasm, mindsets, beliefs, health, and educational focus (Bean, 1990; Schmertz & Carney, 2013).

The categorization of the barriers uncovered by Schmertz and Carney (2013) gave them a usable format, which they used to develop a Likert-scale survey instrument. This innovative tool measured transfer students' perceptions of the barriers they encountered during their enrollment in the first two semesters at their four-year institutions (Schmertz & Carney, 2013).

### ***Schlossberg's Transition Theory***

In addition to an understanding of the retention barriers highlighted by Schmertz and Carney's (2013) research, Schlossberg's (1995) transition theory also allows one to achieve an increased appreciation of the transfer or transition process for community college students. This theory made

sense of four personal qualities that influence a person's ability to transition from one life situation to the next successfully. Schlossberg labeled these traits the 4S's. Transition theory maintains that during a transition time in a person's life, they apply personal coping tools (Evans, Forney, & Guido-DiBrito, 1998), the 4S's, which then determine the outcome of the transition process.

Schlossberg believed the success or failure of a person to cope with change is dependent upon their ability to cope with the four traits. These traits are present during the vacillations that predictably occur in people's lives (Evans et al., 1998). The 4S's are 1) Situation, 2) Self, 3) Social Support, and 4) Strategies (Evans et al., 1998). The following is a summary of these categories.

- The first trait, *situation*, involves prior experiences and sources of stress (Evans et al., 1998).
- The second trait, *self*, includes a person's individual and demographic characteristics (Evans et al., 1998).
- The third trait, *social support*, relates to relationships (Evans et al., 1998).
- The fourth trait, *strategies*, are adjustments or systems people employ in the management of transitions (Evans et al., 1998).

When linked, Schmertz and Carney's (2013) categorization of the barriers to transfer fit cogently into Schlossberg's 4S's model. Consequently, a framework using both Schlossberg's 4S's, and Schmertz and Carney's (2013) groupings may enable a deeper understanding to be obtained of the thoughts and perceptions of community college students regarding their choices when considering a transition from community colleges to four-year universities.

### ***Decision-Making and the Role Perception Plays***

Like most life decisions, transferring to four-year universities involves choices for community college students. Upon graduation from two-year programs, students must choose between transitioning into four-year universities to earn a bachelor's degree or earning a living. Often, they are forced to make these life-altering choices without the benefit of the correct knowledge of all of the complexities involved. In fact, many times what they think they know is undermined by incorrect information (Robbins & Judge, 2013). Hence, understanding the perceptions community college students have about transfer barriers and the transition process is critical.

Perceptions play a role in a person's decision-making process because they determine the way individuals interpret the world around them (Plous, 1993). Perceptions impact everything a person does; they dictate how people think and act (Fishbein & Ajzen, 2010; Plous, 1993). One could say that the world perceived is the only world which has importance; perception is reality (Robbins & Judge, 2013). People make decisions based on their perceptual distortions. Understanding perceptions is essential because people often have incorrect impressions of existing situations. Hence, inaccurate or insufficient information often tinges decision-making. Thus, people would likely make different choices if their understanding of a situation included correct and unbiased knowledge of all the existing data (Fishbein & Ajzen, 2010).

### ***Transition Theory Meets a Student Retention Model***

There are many barriers which are known to play an important role in the retention of transfer students (Schmertz & Carney, 2013) and when community college students hear of failures experienced by transfer students, they begin to form unfavorable perceptions about these obstacles

(Braxton & Lien, 2000). Predictably, many of these community college students become anxious when they believe they are going to face these barriers. Thus, students’ perceptions of Schmertz and Carney’s (2013) seemingly insurmountable barriers could make them shy away from transitioning into four-year schools altogether.

Perceptions are influential. Discovering community college students’ perceptions of the barriers to transfer may help to predict what they will do when making decisions about transitioning into four-year universities and allow stakeholders to correct any misconceptions. The categories defined by Schmertz and Carney (2013) and Schlossberg’s 4S’s (1995) happen to have a logical and natural relationship, as shown in Table 1. The researcher found that these two ideas could be combined to generate a new predictive model, which could facilitate an understanding of the potential perceptions impacting community college students’ decisions about a transfer.

**Table 1.** Hearn Hybrid Community College Transition Predictor

Kruskal-Wallis Relationship				Pearson Correlation Relationship		Kruskal-Wallis and Pearson Correlation Relationship		No Relationship	
Hearn Hybrid Community College Transition Predictor									
Schlossberg’s 4S’s (Schlossberg, 1995)									
PERCEPTIONS (Based on Schmertz & Carney’s Barriers, 2013)									
<i>Situation</i>		<i>Self</i>		<i>Social Support</i>		<i>Strategies</i>			
<b>Perceived Challenges for Academic Integration</b>									
		Maintain Grades				Time Management			
		Handle Rigor							
				Bond with University Advisor					
				Get Along with Professors					
				Find a Study Group					
<b>Perceived Challenges for Social Integration</b>									
				Fit in with Other Students					
				Make Friends					
				Connect with Other Students in Classes					
				Feel Isolated and Lonely					
		Find Interesting Extracurricular Activities							
				Maintain Connection with Family and Friends					
<b>Perceived Challenges for Personal Integration</b>									
						Balance School Work with Family Demands			
Access to Health Care									
		Sustain Motivation							
<b>Perceived Challenges for Financial Integration</b>									
Afford New School									
Understand Financial Aid at New School									
						Need to Work			
						Able to Keep Job While Going to School			
Transition Financial Aid									
Ability to Transfer Credit Hours									

Source. Reprinted from Hearn (2016).

## Methods

The researcher used a voluntary online survey to collect quantitative data. The measurement tool included questions to create a picture of the sample’s demographics and Likert rating scale entries. The Likert queries were generated using the new model created by the researcher shown in Table 1 (Hearn, 2016). In an effort to develop construct validity, these questions were influenced by Schmertz and Carney’s (2013) list of barriers to retention and were designed to illustrate the

connection between students' perceptions of these barriers and the likelihood of their choice to transition to a local private four-year university.

To develop the face validity of the survey instrument, a group of students who had recently graduated from the UCC ECE program pilot tested the survey instrument. This pilot enabled the researcher to gain information about how the participants might perceive the queries. The researcher was able to discover potential problems through a focus group, which enabled her to make edits to the survey. She also endeavored to establish the content validity of the instrument through an analysis process. The researcher retained a panel of experts for this purpose. This panel consisted of UCC ECE professors, PCU elementary education professors, a statistician from both CPU and UCC, and the admission personnel from both schools.

The researcher sought to increase the likelihood of reliability by obtaining a representative sample, which included all of the ECE students from Urban Community College's Early Childhood Education Program. The researcher chose UCC because it is a community college near the Private Catholic University (PCU). PCU has an elementary education program which has just added an ECE component. Due to the fact that there has been a call to develop an ECE workforce from the Department of Education from the state in which both of these schools are located, and UCC has a well-respected ECE associates degree program, the researcher believed this would be a good place to recruit potential elementary education candidates. The survey was distributed electronically to these participants.

Possible limitations to electronic data collection are conceivable. The response rate of the sample could have been impacted by the use of incorrect or duplicate email addresses, limited computer access, disinterest, time constraints, or discomfort with electronic data collection methods by the participants. Participation could also have been affected by the various delivery methods of UCC's Early Childhood program whose instructors provided information to the participants. Hence, the students who had access to the face-to-face information session might have been more influenced by this delivery method than the students who did not experience this personal delivery method. Therefore, it is possible the results might not accurately reflect the opinions of all of the students included in the population. Moreover, the students who expressed an earlier interest in transfer might have an increased participation rate. Finally, because the subjects for this research were from only one program at the participating community college, generalization beyond this sample may not be possible. Furthermore, as the researcher sought to discover the respondents' perceptions toward transferring to one private Catholic university, the research findings may or may not be transferable to other private or public educational institutions.

### ***Data Collection***

The predictor or independent variables in this research project were the UCC students' perceptions about transfer barriers, which were derived from Schmertz and Carney's (2013) list of barriers to retention. The dependent variable was the likelihood of the students to make decisions to transfer to PCU. It is true the independent variables, the barriers in this project, can be very real. However, it is also true many of these obstacles can be mitigated and reconciled. Hence, the researcher considered whether perceptions of these barriers might often become the most formidable barrier of all. This research was designed to understand the relationship between perceptions of the barriers, real or perceived, and students' decisions to transfer. The researcher reasoned this knowledge would provide direction toward the development of programs, events, or information sessions which might pose solutions and allow the associate degree students to overcome their



fears, allowing them to act on the dreams most community college students have: to transition into four-year schools and attain their degrees.

The investigator employed several different statistical tests for analysis purposes. Frequency tests were used to produce a depiction of the participant sample. Kruskal-Wallis tests were chosen because of the nonparametric nature of this study and were employed to establish the nature of the relationship between the dependent variable and each independent variable. Pearson correlations were also used to validate the information gathered in the Kruskal-Wallis tests. Lastly, multiple regressions were used to discover the relationship between a continuous dependent variable and two or more continuous or categorical independent variables. While the researcher realizes the small sample size may influence the results of the regression models to some degree, her intention was to use the regression as a way to determine whether the researcher-developed model could be used as a predictor of the likelihood of students' decisions to transfer. The researcher included the nonparametric Kruskal-Wallis model to compensate for the small size of the sample.

## Findings

### *Descriptive Statistics*

The participants were ECE students from UCC. The researcher used email to distribute an anonymous electronic survey to 208 students. Sixty-seven of these students completed the survey. To discover demographic information about the sample, the researcher used frequency tests. These tests revealed the students were almost all female, and the age range was 19 to 44, with a 3.0 or higher grade-point average. Primarily, the students worked while going to school. Eighty percent of the sample felt transferring to a university would be very important. In addition, 90% believed earning a bachelor's degree would increase their job prospects and enhance their careers. The students overwhelmingly (76%) agreed they believed they would transfer to a four-year university after completion of their associate's degree, and a majority of the participants believed they would like to have at least the opportunity to transfer to CPU. However, when it came down to actually deciding to transfer to CPU, the picture changed. Forty-five percent were unsure, and an even bell-curve distribution emerged, showing equal numbers on each side of those who wanted to transfer to CPU and those who did not.

***Sub-Question 1:*** *What are the perceived barriers that would hinder students' decisions to transition to CPU?* The researcher employed Kruskal-Wallis and Pearson correlation tests to determine the answer to the above-mentioned question. Due to the ordinal nature of Likert-scale items, Hollingsworth, Collins, Smith, and Nelson (2011) contended that nonparametric tests would be the best choice for a statistical examination. Hence, Kruskal-Wallis tests were conducted to calculate the relationships between students' perceptions of the barriers to retention and their possible decisions to transfer to CPU. Table 2 presents the results of this test. The results suggested that essentially every perceived barrier listed in Table 2 had a statistically significant relationship with the students' decisions to transition to CPU.

The researcher used Pearson correlation tests to substantiate the results of the Kruskal-Wallis tests. Lovelace and Brickman (2013) argued that Pearson correlation tests are not always suitable when the participant sample is nonparametric; however, the researcher chose to use this test as a check-and-balance, further substantiating the findings of the Kruskal-Wallis tests. When compared, the results of the Pearson correlations shown in Table 3 and the Kruskal-Wallis results shown in Table 2 were closely matched. Therefore, the researcher felt assured regarding the accuracy of these

findings. The close relationship is further illustrated in Table 1, which not only shows the connection between the Kruskal-Wallis and Pearson correlation tests, but also, as described in the literature review above, shows the relationship between Schlossberg's 4S's and Schmertz and Carney's barriers, the foundation of the Hybrid Community College Transfer Predictor and the subsequent researcher-created survey.

**Table 2.** Kruskal-Wallis Analysis of Perceptions of Barriers and Decision to Transfer

Perceived Barrier	Decision to Transfer	
	<i>H</i> (adjusted)	<i>p</i>
Time Management	28.71	.00*
Maintain Grades	33.14	.00*
Handle Rigor	1.72	.20
Bond with University Advisor	34.99	.00*
Get Along with Professors	12.57	.00*
Find a Study Group	33.62	.00*
Fit in with Other Students	17.71	.00*
Make Friends	24.48	.00*
Connect with Other Students in Class	33.62	.00*
Feel Isolated and Lonely	18.48	.00*
Find Interesting Extracurricular Activities	6.67	.01*
Maintain Connection with Family and Friends	37.20	.00*
Balance School Work with Family Demands	19.61	.00*
Access to Health Care	14.22	.00*
Sustain Motivation	27.62	.00*
Afford New School	6.64	.01*
Understand Financial Aid at New School	8.32	.00*
Need to Work	9.77	.00*
Able to Keep Job While Going to School	14.34	.00*
Transition Financial Aid	8.32	.00*
Ability to Transfer Credit Hours	15.94	.00*

Note.  $N = 67$ ; \* $p < 0.05$ ; Source: Hearn (2016).

**Table 3.** Pearson Correlation Analysis of Perceptions of Barriers and Decision to Transfer

Perceived Barrier	Decision to Transfer	
	<i>r</i>	<i>p</i>
Time Management	.44	.00*
Maintain Grades	.55	.00*
Handle Rigor	.52	.00*
Bond with University Advisor	.29	.04*
Get Along with Professors	.22	.12
Find a Study Group	.38	.00*
Fit in with Other Students	.35	.01*
Make Friends	.48	.00*
Connect with Other Students in Class	.39	.00*
Feel Isolated and Lonely	-.42	.00*
Find Interesting Extracurricular Activities	.38	.00*
Maintain Connection with Family and Friends	.25	.06
Balance School Work with Family Demands	.48	.00*
Access to Health Care	.06	.68
Sustain Motivation	.32	.02*
Afford New School	.50	.00*
Understand New Financial Aid	.43	.00*
Need to Work	-.27	.04*
Able to Keep Job While Going to School	.46	.00*
Transition Financial Aid	.43	.00*
Ability to Transfer Credit Hours	.28	.04*

Note.  $N = 67$ ; \* $p < 0.05$ ; Source: Hearn (2016).

**Sub-Question 2:** Can knowledge about students' perceptions be used to predict whether students will decide to transfer? And sub-question 3: Can a new researcher-created model be utilized to determine the likelihood of UCC students' choice to transition to CPU? The researcher used a series of multiple regressions to determine the answer to sub-question number 2. In this section the researcher presents tables that show the results of four regression models. These regression models assess the influence of a number of independent variables on the dependent variable, the decision to transfer. In each table, coefficients and two-tailed standard errors are presented. For those variables that are statistically significant at the .05 level or lower, a star is placed next to the coefficient for that independent variable. Each table also displays the number of observations (N) and the adjusted  $R^2$  figures for each model. The findings revealed that in each model there was a statistically significant relationship between the independent variables in all of the 4S categories and the dependent variable. The results of the regressions were robust and reveal that Schlossberg's 4S's are barriers perceived as being insurmountable. This revelation leads the researcher to believe that if programs could be developed to uncover truths or provide solutions to students' perceptions about the barriers, students may be more inclined to decide to transfer.

Additionally, sub-question 2 asks if this instrument could be a predictor of the transfer potential of UCC early childhood associate degree graduates. Due to the substantial amount of variation in each regression, it seems likely that the model created by the researcher is solid and could be used to forecast students' choices about transitioning to a four-year university. A more in-depth discussion of the results for each of the 4S's is presented in the following sections.

**Situation-Regression.** Perceptions about sources of stress and things that may be out of the students' control are all previous experiences that influence students' situations (Evans et al., 1998). Examining these perceived barriers to retention through regressions, it appears that worries about health care, paying for school, confusion about financial aid, and the number of credit hours that universities would accept as transfer credit hours are all part of this category; all have an impact on a student's decision to transfer. This conclusion is supported by the regression model in Table 4 which shows that there is a relationship between each of the situation barriers and the students' decision to transfer, but most troubling is the statistically significant relationship between the concern for the ability to pay for school and the decision to transfer. The adjusted  $R^2$ , 37%, suggests that if students' perceptions of situational barriers can be addressed this might have a positive influence on students' decisions to transfer. Giving students access to financial aid and admission counselors from PCU, and creating a course-to-course articulation agreement, might help to change students' perceptions, leading to a positive transfer decision.

**Table 4.** Situation Barriers and Decision to Transfer Regression Model

Situation Barrier	Decision to Transfer	
	Coefficient	Two-Tailed Standard Error
Intercept	.269	.582
Access to Health Care	.033	.113
Afford New School	.300*	.118
Understand New Financial Aid	.227	.138
Transition Financial Aid	.157	.126
Ability to Transfer Credit Hours	-.074	.158

Note.  $N = 67$ ;  $R^2$  (Adjusted) = .371; \* $p < 0.05$ ; Source: Hearn (2016).

**Self-Regression.** Perceptions about students' personal and demographic characteristics are factors in the self category (Evans et al., 1998). This category includes barriers such as students' concern about their intellect and prior academic experiences. Student interests and their ability to stay

motivated also belong to this group. Table 5 illustrates the results of the regression model and details the statistically significant relationship between these barriers and the UCC students' decisions to transfer to PCU. The adjusted  $R^2$  suggests that given the data, this robust model appears to capture about 40% of the variation in the students' decision to transfer. It reveals that students are concerned about whether they would be able to succeed in the academic arena if they were to transfer to PCU. Setting up events that include student visits to PCU classes, sharing the academic support systems at PCU, pairing students with mentors, academic coaches, tutors, and student support services are all things that could alleviate worries about the self-barriers for potential UCC transfer prospects.

**Table 5.** Self-Barriers and Decision to Transfer Regression Model

Self-Barrier	Decision to Transfer	
	Coefficient	Two-Tailed Standard Error
Intercept	1.188*	.354
Maintain Grades	.731*	.228
Handle Rigor	.311*	.102
Find Interesting Extracurricular Activities	.174	.124
Sustain Motivation	-.367*	.178

Note.  $N = 67$ ;  $R^2$  (Adjusted) = .404; \* $p < 0.05$ ; Source: Hearn (2016).

**Social-Support Regression.** Perceptions about students' relationships are included in the social-support category (Evans et al., 1998). Types of concerns raised by this category include the students' ability to bond with professors and university advisors. Additionally, students might be worried about finding new friends at the new institution or bonding with groups of students with whom they can study both in or out of class. In essence, the students' ability to fit in is an excellent descriptor of these perceived barriers. The results of the regression model shown in Table 6 reveal interesting influences may be at work because students' perceptions about fitting in seem to increase the tendency of students to transfer by about 45%. Setting up programs which give the community college students opportunities to interact with professors and students from PCU and potentially pairing the community college students with PCU student mentors are some things that could help to alleviate social-support concerns for the community college students.

**Table 6.** Social Barriers and Decision to Transfer Regression Model

Social Barrier	Decision to Transfer	
	Coefficient	Two-Tailed Standard Error
Intercept	3.573*	1.175
Bond with University Advisor	.152	.242
Get Along with Professors	-.230	.265
Find a Study Group	.051	.159
Fit in With Other Students	.111	.172
Make Friends	.382*	.189
Connect With Other Students in Class	.241	.255
Feel Isolated and Lonely	-.394*	.202
Maintain Connection with Family and Friends	-.163	.254

Note.  $N = 67$ ;  $R^2$  (Adjusted) = .445; \* $p < 0.05$ ; Source: Hearn (2016).

**Strategies Regression.** Perceptions about students' ability to develop plans or tactics to manage changes brought on by the situations in which they might find themselves (Evans et al., 1998) are all part of this barrier category. The worries this category incorporates are the students' abilities to manage time and their ability to find a balance between school and family. Students also find themselves concerned about how to handle the financial responsibilities that new school commitments bring. The information displayed in Table 7 indicates that perceptions of these

barriers do impact students' decisions to transfer. According to Table 7, the adjusted  $R^2$  suggests that given the data, this model appears to capture about 34% of the variation in the students' decision to transfer, which is a fairly substantial amount of variation. Workshops on time management and leading a balanced life, along with access to counselors or others who have been in the situation in which they believe they will find themselves, could provide solace for community college students who are concerned about strategies-type barriers.

**Table 7. Strategies Barriers and Decision to Transfer Regression Model**

Strategies Barrier	Decision to Transfer	
	Coefficient	Two-Tailed Standard Error
Intercept	1.850*	.531
Time Management	.214	.210
Balance School Work with Family Demands	.214	.180
Need to work	-.120	.113
Able to Keep Job While Going to School	.306*	.155

Note.  $N = 67$ ;  $R^2$  (Adjusted) = .336; \* $p < 0.05$ ; Source: Hearn (2016).

## Discussion and Implications

As identified previously, high-quality ECE programs have positive consequences for the future (Heckman, 2011). The realization of the benefits of these programs will occur only if qualified teachers are employed (Jacob, 2007). Currently, the number of such teachers is inadequate to fill the need (Jacob, 2007). This research pursued a solution to this problem, by finding answers to questions about why a large number of students who begin community colleges with the desire to transfer to four-year universities never make the final decision to do so. The researcher contends community college students' perceptions about the barriers to retention play a role in this low number of transfers. Furthermore, if these perceptions can be discovered and then mitigated, the number of students deciding to transfer might increase. This solution could help to forge a path to transition from community colleges to four-year post-secondary programs, allowing community college students to earn their bachelor's degree and become certified ECE teachers.

This study uncovered perceptions of the UCC students. Most notably, students were concerned about their ability to maintain good grades and handle the rigor at their new school. The results also reflected the fact that the students were worried about their ability to connect with other students at their new schools. Additionally, and not surprisingly, the students also believed it would be difficult to balance school work, job, and family demands. Each of these perceived barriers was found to impact the students' decisions to transfer to CPU negatively.

Students' decisions are controlled solely by the information to which they have access (Robbins & Judge, 2013). Thus, the UCC students based their decisions solely on their own experiences and things they had heard without knowing if these perceptions were true or not. Consequently, these students decided against transferring before they were able to obtain new and more realistic information (Robbins & Judge, 2013). The data generated by this project supports this premise. Therefore, using the information provided by this project, school officials have been able to work together to find existing programs and develop new programs to assuage concerns about academic rigor, school relationships and connections, and the balance between school work, job, and family demands. These programs along with financial counseling have been implemented to educate the UCC students and improve the transfer process for these community college students. The progress to date has been promising. As a result of the programs which have been developed utilizing the information gleaned from this research, several students have overcome the fears they had about

their perceived barriers and have transferred from UCC to PCU. Moreover, the success stories from this first group of transfer students, along with the research-driven programs, are working to encourage other UCC students to consider the transfer process.

The researcher focused on ECE students at UCC and PCU. However, the impact of student perceptions would likely be useful if it could be generalized to other transfer situations. The researcher wanted to advance and improve the practices involved in transfer and retention by merging an existing theory and model to make an original predictive prototype. Consequently, this prototype could predict the likelihood of students transitioning from other programs, those different than ECE, the program studied in this project. In theory, by seeking to define possible institution or program-specific roadblocks to transfer, the stakeholders could create interventions that would tackle the precise difficulties uncovered. Hence, this research could pave the way for the recruitment and successful transitions of many community college students. Lastly, other organizations could look to the implications this research study has for transfer policy and replicate it.

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