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I Already Belong: Immigrant-Origin College Students' Persistence

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Children of immigrant and refugee populations are increasing in the U.S. but are underrepresented at U.S. universities. Collectivistic, immigrant-origin students may be less responsive to current best practice integration approaches, which focus on institutional Academic and Social Integration as necessary for college persistence. Homogenizing U.S.-origin and immigrant-origin students in persistence strategies, particularly institutional Social Integration, may not take into consideration culture-of origin differences, such as the degree of ongoing family connectedness, that motivate students toward college persistence. Antecedents of college intentions to persist were compared for immigrant-origin students (N=87) and U.S.- origin students (N=122) at a midwestern university. Model comparisons revealed group differences in the role of institutional Academic Integration and of institutional Social Integration. No support for family connectedness affecting persistence was demonstrated. Implications for university recruiting and retention strategies are discussed.

Keywords: college persistence, immigrant, academic integration, social integration, family connectedness, tinto

INTRODUCTION

Hannah and Gelilah both graduated from high school the same academic year. Both girls lived in a mid-western city, graduated with honors, scored above 30 on the ACT, and were accepted into prestigious universities. Both had graduation parties at their homes. Hannah, the daughter of middle-class, White, American parents, had a graduation party that included primarily friends from school (many of

whom appeared to have shared sports and extra-curricular interests) and a few adults (family friends and local relatives). Gelilah, the daughter of first generation, Ethiopian, refugee parents, celebrated with only a few friends and a house filled with over 50 relatives (grandparents, aunts, uncles, and cousins) who had traveled from Ethiopia, Washington, D.C., and Atlanta. Most of Gelilah's relatives stayed for more than a week and attended not only her graduation party, but her graduation ceremony and church services as well.

When Hannah began her first year of college, her parents did not visit any classes, take any campus tours, or participate in course selection or book purchases. Gelilah's parents stayed two weeks in her college town as she moved into the dorm, attended her first week of classes, bought textbooks, found a church, and determined her volunteer activities for the year.

These two students' true stories reflect contrasting approaches and expectations for family involvement in the transition to college among diverse student populations. They also reflect the changing face of first year college students in America.

Children of immigrant and refugee populations are increasing in the U.S. but are currently underrepresented at U.S. universities (Neuman & Tienda, 1994; Nohr, 2012; Stebleton, Huesman, & Kuzhabelkova, 2010; U.S. Department of State, International Migration, 2013). As the account above suggests, many of these prospective college students likely differ from the current and previously typical college students in their cultural orientation. These differences may explain the ongoing influence their families provide into the first year of college. Immigrant-origin students' need to belong in college social life may also be different from their U.S.-origin peers as a result of continued family connectedness. Different strategies for recruiting and retaining students of different cultural backgrounds may therefore be needed. The purpose of this research is to examine how immigrant-origin students and U.S.-origin students may respond differently to institutional strategies promoting institutional Social Integration to facilitate college persistence.

Collectivistic, Immigrant-Origin Students in College

The U.S. Census Bureau projects a substantial shift in U.S. ethnicity statistics over the next 50 years (United States Census Bureau Population Projection, 2013). By the year 2060, Hispanic populations are projected to more than double, accounting for almost 1 in 3 Americans. Additionally, American Indian, Pacific Islander, and Asian American populations are projected to double; African American populations are projected to increase; and individuals reporting two or more races are expected to more than triple. The Bureau predicts a "majority-minority" nation by 2043, in which minority groups combined are larger than the White population, although no single minority group is larger than the White population.

Furthermore, the number of ethnic minority individuals who are foreign-born has increased. Currently, according to the U.S. Department of State, 40 million foreign-born persons live in the United States, representing nearly 13 percent of the entire U.S. population. Between 2009 and 2011, more than 2 million immigrants became U.S. citizens (Martin & Yankay, 2012; U.S. Department of State, International Migration, 2013). Some of these immigrant populations may be included in the Census Bureau's ethnicity data (e.g., Mexican immigrants may identify with the Hispanic option in the census) but others may not (e.g., Sudanese immigrants may not self-report as African American; mixed-race immigrants may not report ethnicity) (Payson, 1996; Smith, Woo, & Austin, 2010).

The growing immigrant populations originate largely from collectivistic countries in Central America, Asia and Africa (Martin & Yankay, 2012). Collectivistic cultures tend to be interdependent, have close-knit family and social structures, have greater expectations to provide ongoing care for family, and be more "we" oriented; individualistic cultures tend to be independent, have loose-knit family and social structures, have lesser expectations to provide ongoing care for family, and be more "I" oriented (Carducci, 2012; Fuligni, 2001b). In general, Western countries tend to be more individualistic and Eastern countries tend to be more collectivistic. Additionally, South and Central America tend to have more collectivistic traits compared with North America (Hofstede, 2013). Trends in U.S. Immigration and Refugees reported by the

U.S. Department of Homeland Security show the growing minority populations

in the U.S. are largely from collectivistic cultures (Hofstede, 1980; Martin & Yankay, 2012; U.S. Department of State, International Migration, 2013).

Research demonstrates differences in the ongoing influence and expectations of families with young adult children from collectivistic cultural backgrounds compared with their individualistic cultural background peers. Collectivistic students, for example, may be expected to continue to financially support their families into adulthood or achieve academic degrees to honor their parents (Fuligni, 2001a; Tauriac & Liem, 2012). Killian and Hegtvedt (2003) found that Vietnamese parents had direct, explicit influence on their adult children's social networks as well as a high likelihood that the second generation of immigrants would retain the cultural behaviors of their parents (including religion, language, and financial support of elders).

Chinese, Filipino, Mexican, and Central and South American students prioritize family responsibilities, such as taking care of siblings, helping around the house, assisting parents, spending time with family, and supporting the needs of the family more than do students from European backgrounds. Fuligni, Tseng, and Lam (1999) report that cultural traditions and the family take precedence over individual desires. Additionally, they found that immigrant children perceive these obligations to continue throughout the lifetime. Even American-born Asians and American-born Hispanic students report a greater sense of family obligation compared to European-American students (Fuligni, 2001a), indicating a retention of culture-of-origin values, even after acculturation takes place in other areas, such as, language.

Fuligni, Yip, and Tseng (2002) studied 140 Chinese students and found them to balance family obligation and academic demands without reporting psychological distress, unlike their European origin peers. They attributed these differences to the unique demands of immigrant students to balance culture of origin demands while adapting to American society. Espinoza (2013) found that first generation, Latino college students studying engineering wanted to make their parents' sacrifices "worth it" as well as to do well for themselves and their family. These factors contributed to their desire to persist in college.

Tinto's Model and Collectivistic Cultures

Tinto's model of college persistence (1975) has been the primary theory underlying the development of universities' strategies for institutional persistence in recent years. According to this theory, institutional Academic Integration and institutional Social Integration are the primary antecedents of college persistence. Institutional Academic Integration refers to students' integration into the academic structures and demands of the institution (e.g., grades, class attendance, and intellectual development); institutional Social Integration refers to students' integration into institutional peer and faculty relationships (e.g., informal peer group associations, semi-formal extracurricular activities, residential college living, faculty support) (Braxton & Lee, 2005; Tinto, 1975). Tinto's model considers students' family background, individual attributes, and pre-college schooling as exogenous variables to institutional Academic Integration and institutional Social Integration which are the primary predictors of persistence. According to the model, institutional Social Integration contributes to institutional commitment and subsequent academic success (Berger & Lyon, 2005; Braxton & Lee, 2005).

Tinto's model appears to have strongly influenced current university programs whose purpose involves recruiting and retaining minority student populations. Common student retention strategies are consistent with Tinto's institutional Academic and Social Integration theory (e.g., engagement in on-campus activities, living in college dorms, interaction with peers and faculty, enhancing on-campus communities, and cooperative learning environments) (Seidman, 2005). DeVries (2013), in interviews at one university, found that International Studies, the Office of Multicultural Affairs, and Student Affairs all mentioned initiatives based on promoting institutional Academic and Social Integration. However, Tinto's model was developed in the West, by Western researchers, considering Western students, in Western institutions (Berger & Lyon, 2005; Braxton & Lee, 2005; Zepke & Leach, 2005). Tinto has acknowledged that in the future it may be crucial for "many students to remain connected to their past communities, family, church, or tribe" (Tinto, 2006, p. 4).

Tauriac and Liem (2012) used Tinto's model as a basis for exploring a

potential explanation for the different academic outcomes of U.S.-origin and immigrant-origin Blacks. Immigrant-origin Blacks have a significantly higher rate of college persistence relative to U.S.-origin Blacks. U.S. Census data (2004) shows that 25% of all foreign-born Blacks (25 years old or older) have at least a Bachelor's degree, compared to 16% of U.S.-born Blacks. Using three time points (high school senior year, college sophomore year, and college junior or senior year), Tauriac and Liem looked at socioeconomic status (SES), high school grade point average (GPA), college academic integration, and college social support/integration. They predicted that immigrant-born Blacks would report stronger academic and social institutional integration resulting in higher levels of college persistence. Their results replicated previous studies which found immigrant-origin Blacks persisting significantly more than their US-origin colleagues. However, neither Academic nor Social Integration predicted immigrant-origin Blacks' persistence. U.S.-origin Blacks showed significant correlations between SES, Academic Integration, and college persistence, but that was not the case for immigrant-origin Blacks. The only predictors of college persistence among immigrant-origin Blacks were SES and high school GPA. Tauriac and Liem argued that universities consider distinguishing ethnic groups when assessing persistence strategies as well as when tracking ethnic minority students' persistence overall. However, it remains unclear why Academic and Social Integration did not predict college persistence among immigrant-origin Blacks.

One reason may be the failure to take into account the strong family of origin bonds that are retained by collectivistic students when transitioning into college. Padilla et al. (1997) found that successful ethnic minority students did not necessarily separate from their pre-college community. In fact, they retained continuity with their home communities, involved their families in their college experiences, and retained their sense of ethnic identity.

Belonging Among Minority Students

The need to belong has been widely studied in the context of college achievement among minority students (Hurtado & Carter, 1997; Kalsner & Pistole,

2003; Stebleton et al., 2010; Walton & Cohen, 2007, 2011). This need is a powerful, fundamental, and universal human motive driving the formation of social attachments and resistance to dissolution of existing bonds (Baumeister & Leary, 1995). The need to belong may underlie the need for institutional Social Integration in Tinto's Model.

The tendency for immigrant-origin and collectivistic (vs. individualistic) college students to continue to maintain strong bonds with family and group memberships outside of the college institution may impact their need for institutional Social Integration (Fuligni et al., 2002; Harker, 2001; Killian & Hegtvedt, 2010; Tseng, 2004). Harker (2001) found that first-generation immigrant adolescents had less depression and higher levels of well-being than did second-generation immigrants or native-born adolescents. She attributed the higher levels of well-being to parental supervision, lack of parent-child conflict, religious practices, and social support. Assimilation in the U.S. did not affect the positive-well being of the first-generation adolescents. Further research that considers the complex roles of students from diverse backgrounds may be necessary to better understand the impact of ongoing family bonds during the college years.

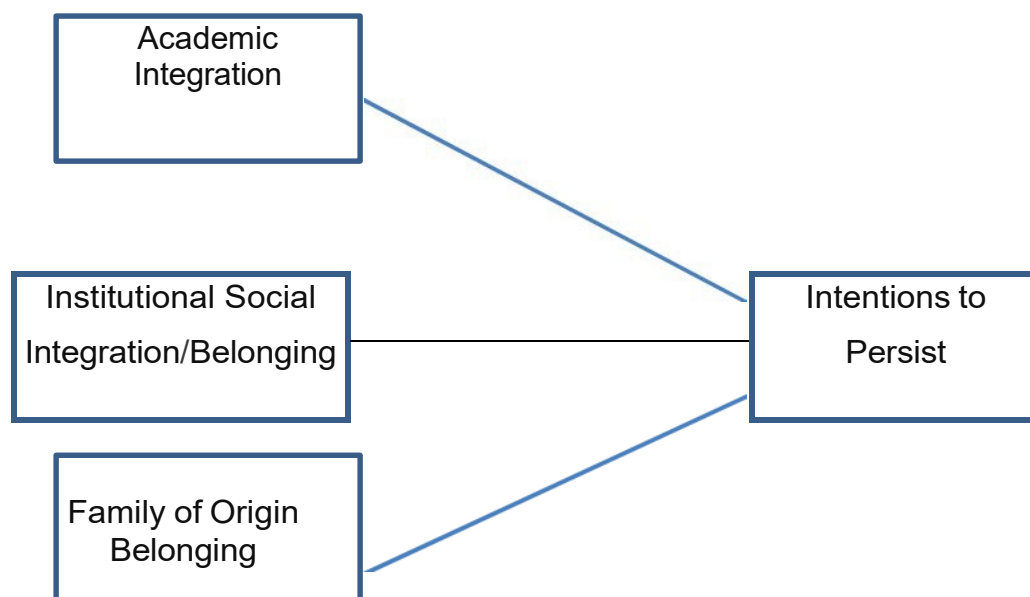
According to Stephens et al. (2012), American university culture demonstrates pervasive middle-class norms of independence foundational to American society. Stephens et al. based their conclusion on the results of diverse methods (surveys, longitudinal data, and experiments) which consistently supported their hypothesis of pervasive independent, university cultural norms resulting in lower academic performance when students did not fit those norms.

A Revised Model: I Already Belong

The prevalence of students from one culture of origin (e.g., collectivistic, immigrant) studying in a different cultural setting (e.g., individualistic, U.S.) attains greater significance as universities continue to set goals to increase enrollment and retention (Fulmer et al., 2010; Johnson, Richeson, & Finkel, 2011; Stephens, Townsend, Rose, & Phillips, 2012). If universities fail to address the challenges of heterogeneous student populations on American university campuses, they may be

unable to successfully recruit and retain students who are unwilling or unable to reconcile their own cultures with that of the university. Current university strategies aimed at fostering institutional Social Integration could create conflict as students feel pressure to establish institutional social connections while retaining existing family bonds. This mismatch may result in lower academic performance, lower institutional Academic Integration, and subsequent college dropout. If immigrant-origin students already have strong family bonds that meet the universal human need for belonging, and if those bonds continue into the young adult years, immigrant-origin college students may not experience the same need for institutional Social Integration in the first year of college compared to U.S.-origin students. Furthermore, if institutional approaches to recruit and retain students focus on integration into a new cultural identity (that of the institution) to the exclusion of their existing cultural identity (that of the family of origin), intention to persist may weaken.

FIGURE 1 PROPOSED MODEL



We proposed an expanded version of Tinto's model. (See Figure 1.) We hypothesize, consistent with Tinto's theorizing, that U.S.-origin students' Intent to Persist will be a function of Academic Integration and Institutional Social

Integration. In contrast, because immigrant-origin students will fulfill their need to belong through existing family ties, Family of Origin Belonging will substitute for Institutional Social Integration for these students. That is, Intent to Persist will be a function of Academic Integration and Family Connectedness for immigrant-origin students.

METHOD

Setting

This study was conducted at a midwestern university with an undergraduate enrollment of approximately 13,000 students. Twenty-four percent of these self-report as non-Caucasian.

This percentage includes international students and U.S. minorities (e.g., African American), as well as students who self report "other." National research has shown that most mixed-ethnic, immigrant-origin Blacks, immigrant origin-Asian, and refugees would likely be included in the 6% of students who self-select "other," along with respondents unwilling or unable to report an ethnicity in the ethnic demographic options available. "International" is typically selected by students studying on student visas and does not reflect immigrant or refugees living as legal permanent residents (LPR) or U.S. citizens (available after 5 years of residency as a LPR) (Martin & Yankay, 2012).

Participants

Multiple methods were used to recruit immigrant- and refugee-origin students, as well as U.S.-origin students, enrolled during the 2013-2014 academic year. Classes with potential minority enrollment were specifically identified as a means to maximize diverse participants. Although 217 students participated, eight questionnaires were incomplete in regards to study measures (e.g., parents' birth countries). The final sample comprised 122 U.S.-origin participants and 87 immigrant-origin participants, all of whom were first year students.

Procedure

Pilot testing of the study questionnaire for clarity was conducted in individual interviews with 2 U.S.-origin and 5 immigrant-origin young adults not associated with the university. The final questionnaire contained 103 items and took about 15 minutes to complete. Participants were first provided a copy of the informed consent document. This document was read out loud by the researcher prior to beginning the questionnaire to confirm understanding due to potential language proficiency differences. Questionnaires were completed in individual and small group settings. All data were collected in person by the senior author using paper questionnaires.

Measures

Demographic Characteristics

Twenty-three demographic questions were collected at the end of the questionnaire, including items used to determine immigrant-origin and U.S.-origin participants (birth country, mother's birth country, father's birth country). Participants identifying either one of his/her parents as being born outside the U.S. and/or being born outside the U.S. him/herself, were identified as immigrant-origin; participants with both parents and him/herself born in the U.S. were identified as U.S.-origin. The immigrant-origin participants listed a total of 31 birth countries for their mothers and 29 birth countries for their fathers.

Academic Integration

Six items from Tauriac and Liem (2012) were used to assess Academic Integration. A 4-point Likert response scale of 1 (*Strongly Disagree*) to 4 (*Strongly Agree*) was employed for these and subsequent questionnaire items. The 6-item measure was pared to three items in fitting an overall measurement model of the four model constructs using Structural Equation Modeling (SEM). These three items were also used to form a composite measure for descriptive and correlational analysis, $\alpha = .75$. The items were "I really enjoy the work I am doing at school.", "I feel uninterested or bored with school (R).", and "I really enjoy the time I spend at school."

Institutional Social Integration

Institutional Social Integration was measured using seven items from the University Attachment Scale (France, Finney, & Swerdzewski, 2010) and four items from the On-campus Social Support Scale (Tauriac & Liem, 2012). The measurement model analysis (SEM) identified four items as optimal. These items were also used to form a composite measure for descriptive and correlational analysis, $oc = .86$. The items were "How accurate would it be to describe you as a typical student at this university?", "I know some people at this university with whom I could talk about my personal concerns.", "I have done a lot of things socially with people at this university.", and "How many of your close friends come from this university?"¹

Family Connectedness

The 6-item Family of Origin Belonging Scale (Asendorpf & Wilpers, 2000) was used to measure Family Connectedness. SEM identified four items to best fit the measurement model. These four items were also used to form a composite measure for descriptive and correlational analysis, $oc = .83$. Items were "I feel accepted by my family.", "It is easy for me to be emotionally close to my family.", "I am comfortable depending on my family.", and "I find it difficult to trust my family completely (R)."

Intent to Persist

Intent to Persist was measured with four items. One item, "I will obtain a bachelor's degree from this university" was adapted from a previous study (Morrow & Ackermann, 2012). Three additional items were created: "I will enroll next semester (Fall, 2014) at this university.", "I will take a minimum of one course per semester until I complete a degree from this university.", and "I will obtain a bachelor's degree from this university, even if I must take a break from continuous enrollment due to a family emergency, financial setback, or other situation." The final SEM measurement model retained all four items. These items were also used to form a composite measure for descriptive and correlational analysis, $oc = .78$.

Additional measures were included in the questionnaire which were not analyzed in this study.

RESULTS

Composite Measure Descriptive Statistics and Correlations

Means and standard deviations of the four composite measures by sample are displayed in Table 1. In both samples, Family Connectedness and Intent to Persist appear to be higher on average than Academic Integration and Institutional Integration. Correlations among these measures, by sample, are in Table 2. These patterns appear to differ, and suggest a different role for Family Connectedness in the two groups. The 15 items making up these four measures were next submitted to a SEM analysis to assess the study hypotheses using latent variables.

TABLE 1

DESCRIPTIVE STATISTICS FOR MODEL COMPOSITE MEASURES BY SAMPLE

Measure	U.S. -origin N=122		Immigrant -origin N=87	
	M	SD	M	SD
1. Academic Integration	2.95	.52	2.93	.47
2. Institutional Social Integration	2.65	.78	2.74	.71
3. Family Connectedness	3.25	.69	3.39	.56
4. Intent to Persist	3.46	.60	3.29	.73

Note: Response Scale 1 (Strongly Disagree) to 4 (Strongly Agree).

Structural Equation Modeling

The sample size ($N=209$) was lower than the recommended minimum of $N=300$ for SEM, but still met the target ratio of 10 participants to one parameter (Kline, 1998). Three models were estimated: a baseline measurement model, a model in which factor loadings were constrained to be equal for the two samples (U.S.-origin and immigrant-origin respondents), and a fully constrained model in which path coefficients and latent variable correlations were also constrained to be equal for the

two samples.

TABLE 2

COMPOSITE MEASURE CORRELATIONS BY SAMPLE

Measure	1	2	3
		U.S.-origin (N=122)	
1. Academic Integration			
2. Institutional Social Integration	.11		
3. Family Connectedness	.15	.19*	
4. Intent to Persist	.12	.25**	.06
Immigrant-origin (N=87)			
1. Academic Integration			
2. Institutional Social Integration	.11		
3. Family Connectedness	.35**	-.8	
4. Intent to Persist	.19*	.04	.20

* $p < .05$ ** $p < .01$.

Prior to comparing the two groups, the measurement model, without distinguishing groups, was estimated (Milfont & Fischer, 2010). Items for each latent variable were selected on the basis of measurement convergence and parsimony (3-4 items per construct) given the limited sample size. The best fitting measurement model included four indicators for each of the four latent variables with the exception of Academic Integration, which had three items. All item factor loadings and latent variable covariances in the measurement model were unconstrained (freely estimated), with the exception of one factor loading fixed to 1 for each latent variable to set the scale. As reported in Table 3, the fit of the measurement model was acceptable.

With a measurement model established, the next step was to fit a second model with latent variable indicator factor loadings constrained to be equal in the two groups. This model estimated the relationships of the three predictors of Intent to Persist separately for the two samples using equivalent latent variables. Model 2 evidenced an acceptable fit (Table 3); 13 of 15 standardized factor loadings were between .62 and .88 while one indicator of Academic Integration and one of Intent to Persist were lower (.49 and .57, respectively). Figure 2 reports the path

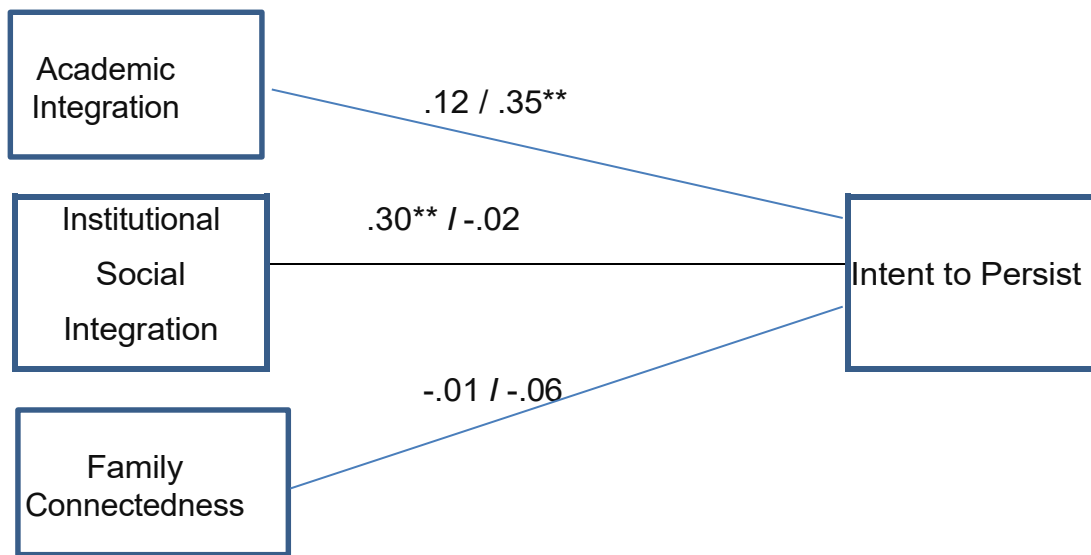
coefficients for the two samples.

**TABLE 3
STRUCTURAL EQUATION MODELS FIT INDICES**

Model	X ²	df	CFI	TLI	SRMR	RMSEA
Measurement Model	100.96	84	.99	.98	.05	.030
Two-Group Constrained Factor Loadings	238.54	190	.96	.96	.08	.046
TwoGroupFullyConstrained	250.33	196	.96	.95	.10	.050

Note: CFI=Comparative Fit Index; TLI=Tucker-Lewis Index; SRMR=Standardized Root Mean Square Residual; RMSEA=Root Mean Square Error of Approximation

FIGURE 2 STANDARDIZED PATH COEFFICIENTS OF TWO-GROUP SEM (U.S.-ORIGIN STUDENTS/ IMMIGRANT-ORIGIN STUDENTS)



* $p < .10$, ** $p < .01$.

Apparent differences emerged: Institutional Social Integration was the sole significant antecedent of Intent to Persist for the U.S.-origin sample while Academic Integration was the only predictor ($p = .07$) for the immigrant-origin sample. The next model test assessed whether the profile of path coefficients differed between the two groups.

Model 3 additionally constrained construct covariances and regression paths

to be equal across groups (a reduction of 6 parameter estimates). Comparing Model 3 to Model 2 provided the test for the hypothesized difference in predictive profiles for U.S.-origin and immigrant-origin students. Model 3 differed marginally from Model 2 ($X^2(6) = 11.79, p = 0.066$), indicating that group differences may indeed exist. However, the observed empirical patterns were not as hypothesized in that, for the U.S.-origin sample, Academic Integration was not a significant factor although Institutional Social Integration was. For the immigrant-origin sample, Academic Integration was a factor but Family Connectedness was not. In sum, although there appear to be group differences in the determinants of Intent to Persist, they reside in the weights of Academic Integration and Institutional Social Integration, not Family Connectedness.

DISCUSSION

Tinto's influential model of college persistence elegantly captures integration into the college experience in two variables: institutional Academic Integration and institutional Social Integration. Although validated on U.S. student samples, there is reason to question whether these two antecedents of persistence operate in the same fashion for immigrant-origin students. Indeed, Tauriac and Liem (2012) failed to find support for either predictor of persistence in a sample of immigrant-origin Black students. The present study widened the sampling of immigrant-origin students. Results partially confirmed Tinto in that Academic Integration of these students was related to their intent to persist while also paralleling Tauriac and Liem's finding of no relationship between institutional Social Integration and persistence. As the latter relationship was evident for our sample of U.S.-origin students, measurement issues are an unlikely explanation of the null finding for the immigrant-origin student sample.

Although group differences are apparent in the determinants of persistence, our proposal that ongoing family bonds fulfill the need to belong-substituting for institutional Social Integration-was not supported. The measure may not have adequately represented the intended construct.

Alternatively, Academic Integration may be the single, powerful antecedent of

persistence for immigrant-origin students. Immigration to the U.S. is often motivated by educational opportunity. This singular focus for immigrant-origin students may overshadow other needs. In a qualitative study, DeVries (2013) found that immigrant-origin parents (from Bhutan, Somalia, Vietnam, Burma, and Sudan) consistently considered religion and education as the primary values for their children. Thus, the influence of family may be through the promotion of Academic Integration.

IMPLICATIONS

These results challenge U.S. institutional administrators to consider the different motivations that impact the retention of immigrant-origin students. While explicit strategies to facilitate institutional social belonging (e.g., promotion of campus clubs and organizations, living in campus housing) may provide connection to the institution and increase persistence among U.S.-origin students, those strategies may have little impact on immigrant-origin student persistence. As local populations continue to diversify, uniform strategies to recruit and retain these varied student populations should be reconsidered. The strong motivation for immigrant-origin students to obtain college degrees to support their families and make the sacrifices of the family "worth it" may explain the positive relationship of Academic Integration to persistence and the lack of association of institutional Social Integration with persistence. Conversely, U.S.-origin students may regard college as a time to disconnect from their family and move toward an independent, new, young adult life among their college student peers, and thus respond to institutional Social Integration policies.

LIMITATIONS AND FUTURE RESEARCH

A limitation of the categorical approach of this study (U.S.-origin vs immigrant-origin) is a glossing over of within-group variation in social needs. That is, the collectivistic culture of origin for the immigrant-origin students arguably drives the importance and nature of family bonds. However, such cultures differ considerably (Hofstede, 1980). Individual differences in the need for institutional

Social Integration likely result from the specific country of origin and the extent of acculturation in the U.S. It may be that family connectedness is a relevant variable among U.S.-origin students as well. Finer grained measures of social needs may be necessary to evaluate the full role of "Social Integration" in understanding college persistence.

While Tinto's model is remarkably efficient (although arguably qualified by moderators), there may be factors beyond Academic and Social Integration which predict persistence. Consideration of relationship commitment, for example, suggests that perceptions of alternatives and the degree of investment may be independent factors additional to integration (Rusbult, 1980, 1983). In sum, an expanded appraisal of determinants of persistence for diverse student populations is likely a necessary step for designing effective institutional retention strategies.

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