SERU Consortium Research Paper[*]

DO I BELONG HERE?
Exploring Immigrant College Student Responses on the
SERU Survey Sense of Belonging/Satisfaction Factor

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ABSTRACT
The immigrant college student population will likely continue to increase. This exploratory study addresses the questions: To what extent does sense of belonging/satisfaction of recent immigrant college students differ from non-immigrant college students? Do perceived self-ratings of belonging vary by immigrant generations? This research draws on a new extensive data source, the Student Experience in the Research University (SERU) survey. Survey data from the 2009 SERU is based on the responses from 55,433 undergraduate students from six-large research institutions from across the United States. Findings suggest that immigrant students' perception of their sense of belonging and satisfaction is significantly lower than their non-immigrant peers' perceptions. Immigrant college students -- whether they were a recent immigrant that arrived in the country as a child, or arrived later as a teenager or young adult, or are the children of parents born outside the U.S. (2nd generation) -- consistently reported lower levels of belonging/satisfaction as compared to their 3rd or 4th generation (i.e., non-immigrant) peers. Responses within the immigrant generation groups were similar. The following implications were highlighted: effective practice and application strategies for student affairs practitioners and faculty members who work directly with immigrant college students; policy development suggestions for both academic and student affairs administrators; future research inquiries for scholars who are interested in this fast growing population of college students.

Immigration issues, both nationally and internationally, continue to garner ongoing attention and debate from multiple stakeholders. From a historical perspective, the number of both legal and illegal immigrants has increased in the United States in recent years (Camarota, 2007; Conway, 2009; Malone, Baluja, Costanzo, & Davis, 2003). Presently, there are over 38 million foreign-born individuals residing in the United States and minorities and immigrants are expected to constitute a larger share of the United States population by 2018 (*Occupational Outlook Handbook*, 2010-2011). As noted by McClennan and Larimore (2009), "by the time members of the class of 2010 celebrate their fortieth college reunion in 2050, non-Hispanics will make up less than half the population of the United States" (p. 225).

Early previews of the 2010 US Census indicate that during the past decade the United States surpassed the 300 million mark in population; approximately 83% of that growth came from nonwhites. In fact, nearly one out of four Americans under 18 has at least one immigrant parent (*American Community Survey*, 2010). These numbers will likely increase pending future immigration policy decisions. Based on immigration trends, predictions indicate that there will be significant growth of immigrant college students (ICS) on college campuses (2-year and 4-year institutions) in the near future (Erisman & Looney, 2007).

Despite the economic recession that started in the United States in late 2007, the Bureau of Labor Statistics, as noted by Rothkopf (2009), predicted that 63 percent of the 18.9 million new jobs that will be created by 2014 will require some

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[*] The Student Experience in the Research University (SERU) Consortium is a collaborative project of faculty and institutional researchers devoted to creating new data sources and policy-relevant analyses to help broaden our understanding of the undergraduate experience within major research universities and to promote a culture of institutional self-improvement. Each SERU Consortium member administers a version of the SERU Survey as a census survey to their students. Currently the Consortium includes sixteen major US public research universities, including all nine undergraduate campuses of the University of California system as well as Rutgers University, University of Florida, University of Michigan at Ann Arbor, University of Minnesota, University of Oregon, University of Pittsburgh and University of Texas at Austin.

postsecondary education. Many of these positions will likely be filled by individuals from the fast-growing immigrant population noted previously. Many of these immigrants will enroll in postsecondary institutions to obtain the needed credentials and skills to enter these occupations. Student affairs practitioners and educators (including faculty members and higher education administrators) assume unique opportunities to better understand immigrant college students' needs, issues, and goals as this student population strives towards their academic and professional objectives.

From a higher education perspective, it is vitally important that prospective immigrant college students gain access to postsecondary institutions *and* achieve success once admitted. Many immigrant students will begin their postsecondary education journeys at a community college or other 2-year institution (Conway, 2009, 2010); others will immediately enroll in a 4-year institution, including private and public institutions. Irrespective of ICS starting points, it is imperative that students receive support that will help them persist towards their educational and career objectives. By learning more about their unique student experiences, student affairs practitioners, scholars, and administrators can assist immigrant students towards personal and professional success.

A.   RATIONALE AND PURPOSE

The purpose of this article is to explore immigrant college students' experiences upon matriculation to a 4-year, public research-extensive university. More specifically, we are interested in immigrant students' perceived notions of *sense of belonging and satisfaction* at research-based institutions. It can be argued that if immigrant college students' feelings of belonging (i.e., affiliation toward the institution and experience) are more positive they are more likely to be successful and persist towards graduation. Research has been conducted on college students' sense of belonging issues and social engagement (Dixon Rayle & Chung, 2007-2008; Huesman, Brown, Lee, Kellogg, & Radcliffe, 2009; Maramba, 2008), including student of color populations (Hurtado & Carter, 1997; Rendón, 1994). However, there is a dearth of information about *belonging* among other historically marginalized student groups, including immigrant populations (Tovar, Simon, & Lee, 2009).

Based on statistics from the National Center for Education Statistics (NCES), over 12% of the total undergraduate population constitutes immigrant students (including recent immigrants and second-generation learners) (Kim, 2009). These numbers may vary depending on how immigrants are defined and categorized; we will address this issue later in the manuscript as the percentage of immigrant participants was significantly higher in the present study. Several researchers (Erisman & Looney, 2007; Gray, Rolph, & Melamid, 1996; Kim, 2009; Szelényi & Chang, 2002) emphasized the urgency of understanding immigrants' college experiences. They indicated that such understanding is important because college success serves as the primary means for immigrants to assimilate and to improve their socio-economic status (Suàrez-Orozco, Suàrez-Orozco, & Todorova, 2008).

Additionally, available research indicates that immigrants' college experiences are unique from other students. Szelényi and Chang (2002) contended that "the literature on immigrant education highlights the position that the growing body of immigrant students in American higher education represents a distinct population with specific needs" (p. 59). According to Erisman and Looney (2007), some of these unique challenges for immigrant students often include: lack of information about college options; work and family responsibilities; financial need; academic preparation and achievement issues; and limited English reading and writing proficiency. Similarly, Gildersleeve (2010) reviewed six major barriers facing historically marginalized populations, including many minority immigrant groups. These often include: financial barriers, K-12 mission and advising services, information on post-secondary education and financial aid, admission practices and policies, college preparation in K-12 institutions, and family involvement. Despite the importance of understanding ICS issues, overall scholarly research on immigrant student populations at the postsecondary level remains scant (Bailey & Weininger, 2000; Stebleton, 2007; Zhou, 1997).

This article will explore the perceived differences between immigrant and non-immigrant groups on the *sense of belonging and satisfaction* factor from the multi-institutional SERU survey (Student Experience in the Research University). An overview of the SERU and other methodological details will be addressed in a subsequent section. Additionally, implications based on the findings will be provided for practice, policy, and research.

B.   LITERATURE REVIEW

Sense of Belonging

Scholarly research conducted on college student experience and sense of belonging suggests there is a strong relationship between belonging (i.e., academic and social integration into the college/university) and student persistence—and ultimately student retention and graduation (Alford, 1998; Tovar, Simon, & Lee, 2009). The greater the sense of belonging to the institution, the more likely it is that the student will remain in college (Hausmann, Schofield, & Woods, 2007; Hoffman, Richmond, Morrow, & Salomone, 2002-2003). Much of this recent work expands on the pioneering work of Astin (1993) and Tinto (1993) that is described thoroughly by Pascarella and Terenzini (2005).

One of the critiques levied against Tinto and others is how these early theories are applied and integrated with issues pertaining to students of color (Hurtado & Carter, 1997). In response to this shortcoming, research has been conducted on sense of belonging issues among different racial/ethnic groups. Johnson, Soldner, Leonard, Alvarez, Inkelas, Rowan-Kenyon, and Longerbeam (2007) examined a sample of 2,967 first-year students of color. Their findings indicated that African American, Hispanic/Latino, and Asian Pacific American students reported lower responses of perceived feelings of sense of belonging than White/Caucasian students. Factors impacting sense of belonging included the residence hall climate and the campus racial climate.

The Hurtado and Carter (1997) study of students of color discovered that ongoing discussions of course content with other students outside class and membership in religious and social-community organizations are strongly associated with students' sense of belonging. "First-year experiences have positive effects, while perceptions of a hostile racial climate have direct negative effects on students' sense of belonging in the third year" (p. 324). These outcomes are comparable to other work conducted on Latino/a students by Hurtado and colleagues (Hurtado & Ponjuan, 2005).

Mattering
Related to the sense of belonging concept is a construct titled *mattering*. Sociologists Rosenberg and McCullough (1981) were among the first to label and operationalize the mattering construct: "it is fair to conclude that mattering is a motive; the feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension exercises a powerful influence on our actions" (p. 165). Components that serve as a foundation of mattering include: attention, importance, ego-extension, and dependence. Developmental psychologists, including Josselson (1998), tied mattering to identity development, including relational identity aspects (Marshall, Liu, Wu, Berzonsky, & Adams, 2010; Tovar, Simon, & Lee, 2009).

Applying *mattering* to higher education contexts is not entirely new. Schlossberg, Lynch, and Chickering (1989) utilized mattering to explore the experience of adult students in college. Schlossberg (1981) applied her earlier work on transition and transition management to college populations since many adult students often experience feelings of marginalization and unease upon returning to postsecondary education. This same idea can be applied to the experiences of immigrants in transition. Schlossberg and her colleagues conceptualized the construct of mattering (based on Rosenberg and McCullough) using five domains. They included the following:

Attention - one commands the interest or notice of another person.

Importance - to believe that another person cares about what we want, think, and do, or is concerned with our fate.

Ego-extension - the feeling that other people will be proud of our accomplishments or saddened by our failures.

Dependence - our behavior is influenced by our dependence on other people.

Appreciation - the feeling that an individual's efforts are valued (Schlossberg added this fifth dimension of mattering).

Schlossberg and her colleagues (1989) argued that if students engage in the college experience (both academically and socially) and have positive interactions with faculty, student affairs educators, and other staff they are more likely to perceive heightened feelings of mattering, and subsequently they are more likely to stay enrolled and persist towards their academic and career objectives. The construct of mattering has also been applied to career development and counseling professions (Amundson, 1993; Corbiére & Amundson, 2007).

The concept of mattering as applied to higher education raises an important question: Does the academic setting (i.e., large/small; public/private) influence the degree of mattering experienced by students? Interestingly, Kim (2009) discovered that immigrant college students attending a large, public research university were more likely to rely on peer networks for help rather than institutional agents such as faculty members, academic advisers, and career counselors located at the university. Many of the students stated that they did not feel welcome or comfortable approaching faculty members and student affairs professionals, but instead sought out information from friends and family members. Although Kim's study did not specifically explore the construct of mattering, it is likely that the students at this institution did not experience the domains of mattering (from institutional agents) as outlined by Rosenberg and McCullough (1981) and Schlossberg et al. (1989).

Use of SERU/UCUES Studies
Douglass, Roebken, and Thomson (2007) contributed an impactful working paper titled *The Immigrant University*. They used data from the University of California's Undergraduate Experience Survey (UCUES), now known as the SERU survey (Student Experience in the Research University). More specifically, they sought to research and assess factors related to

immigrant students and race, major, and socioeconomic characteristics at the University of California system. According to the authors:

> "Among the major conclusions offered in this study: there are a complex set of differences between various "generations" of immigrant students that fit earlier historical waves of immigrant groups to the United States; that the startling number and range of students from different ethnic, racial, cultural, and economic backgrounds points to the need for an expanded notion of diversity beyond older racial and ethnic paradigms; and while there are growing numbers of immigrant students at Berkeley from different parts of the world, and often from lower income families, there is a high correlation with their socioeconomic capital, described as a variety of factors, but most prominently the education level of their parents and family" (p. 1).

The UC system is extremely diverse (more than half the undergraduate students in the UC system have at least one parent that is an immigrant). Although the Douglass et al. (2007) study provides a snapshot of the situation in the Berkeley and UC system, the new expanded SERU consortium provides a broader overview of students (including immigrant college students) across the United States.

Kim and Sax (2009) conducted a study using the UCUES data to explore student and faculty interactions; they did not examine immigrant students specifically but instead explored student gender, race, social class, and first-generation status. The authors noted differences in the frequency of interactions between students and faculty based on the above factors and provided implications to improve educational practices, including suggestions for enhancing the experiences of historically underserved students.

Additionally, research by Wolf, Sax, and Harper (2009) used UCUES data to examine the parental engagement characteristics of students attending college and the impact of this engagement. They did include parental immigrant status and measured differences across race/ethnicity, gender, social class (SES), and year in school. Findings included differences in parental engagement in the academic lives of students across the various racial/ethnic groups. Again, the Wolf et al. study only included UC students (data compiled from 2006 administration of survey) and does not represent a broader sample.

C.   METHODS

Instrument
The Student Experience in the Research University (SERU) survey is based at the Center for Studies of Higher Education (CSHE) and is administered by the Office of Student Research and Campus Surveys at the University of California-Berkeley. The survey was developed in 2002 and has been widely used by the University of California system since 2004 where it is known as the University of California Undergraduate Experience Survey (UCUES).

In 2008, the SERU Project research team formed a consortium that included fifteen major US public research universities, including all nine undergraduate campuses of the University of California system, along with five other institutions. Although still referred to as the UCUES in the UC system, the survey instrument is largely known outside of the UC System as the SERU Survey.

The SERU survey sampling plan is a census scan of the undergraduate experience. All undergraduates enrolled spring term that were also enrolled at the end of the prior term are included in this web-based questionnaire, with the majority of communication occurring by electronic mail.

The SERU survey contains nearly 600 individual items. Each student answers a set of core questions and is randomly assigned one of five modules containing supplemental items. The core questions focus on time use, evaluation of a student's major, campus climate and satisfaction, and four thematic research areas: academic engagement, civic engagement, global knowledge and skills, and student life and development. Each module focuses on one of the four thematic areas for more in-depth assessment; institutions may also include a *wild card* module or topics of specific interest to the campus.

Participants
The survey was administered in the spring of 2009 to 145,150 students across six institutions of the consortium (UC-Berkeley, the University of Michigan at Ann Arbor, the University of Minnesota-Twin Cities, Rutgers University, the University of Florida, and the University of Pittsburgh) institutional level response rates varied from 26% to 69%, for an overall response rate of 39.97% (n=58,017). Data included in this study come from core items focusing on student's satisfaction with their academic and social experiences, demographic items as-well-as demographics from central student records exchanged amongst consortium members. The sample included more female students (59%) than male students (41%).

The race/ethnicity of the respondents was: 61.3% White, 16.2% Asian, 9.3% Chicano-Latino, 6.2% African American, 5% other race/unknown and 2.1% International.

Operationalizing Immigrant Generations
Recent immigrant generation was defined by examining self-reported birth location of maternal and paternal grandparents, followed by birth location of parents and finally birth location of the student (In United States or outside of United States). By starting with grandparent's birth location first and then parents birth location, the definition of recent immigrant is not overly inflated by those students born outside the U.S. who are really 4th generation, perhaps children of American nationals serving or working overseas at the time of their birth (G. Thomson, personal communication, 01/08/2010).

Students not born in the U.S were considered recent immigrants; this group was further delineated by estimating age at arrival in the U.S. Students who arrived in the U.S. by age 12 were considered "Wave 1" and those who arrived later were considered "Wave 2" recent immigrants[1].

The remaining immigrant generations were defined as follows: 2nd generation as at least one parent not born in U.S., and the student born in U.S., 3rd generation as at least two grandparents not born in U.S., but both parents and student born in U.S. and finally 4th generation as at least three grandparents born in U.S., parents and student born in U.S. (Douglass, Roebken, & Thomson, 2007). The latter two groups were combined for analysis (3rd or 4th generation), this group is referred to as "Non-immigrant". International students were excluded from the study due to their unique temporary experience in the U.S., resulting in a total analysis sample of 55,433 students (see Table 1).

Table 1. Study Sample

Immigrant status	Count	Column %
Wave 1	4,634	8.4%
Wave 2	1,753	3.3%
2nd Generation	12,432	22.2%
Non-immigrant	36,614	66.1%
Total	55,433	100%

Note: Wave 1: Recent immigrant arrived by age 12;
Wave 2: Recent immigrant arrived at age 13 or older;
Non-immigrant: 3rd or 4th generation

The dependent measure in the analysis was a subfactor or composite score[2] of six individual items collectively identified as "Sense of belonging and satisfaction" (Cronbach's Alpha coefficient =0.84), this subfactor was part of a larger principle factor identified broadly as "Satisfaction with Educational Experience" (Cronbach's Alpha coefficient =0.92) (Chatman, 2009). The six individual items use either six-point balanced satisfaction or agreement scales:

Please rate your level of satisfaction with the following aspects of your University education.

• Grade point average
• Overall social experience
• Overall academic experience
• Value of your education for the price you're paying

Please rate your level of agreement with the following statements.

• I feel that I belong at this campus
• Knowing what I know now, I would still choose to enroll at this campus

[1] Age at arrival was estimated by taking the difference from current age at the time of the survey from the difference between current year and year of arrival in U.S. Age at arrival = (current age-(2009-Year of arrival in U.S.)).

[2] Factor scores were computed based on item loadings from a principle components analysis of the core items from the 2009 SERU administration (Chatman, 2009). Factor scores are standardized and reported on a scale with a mean of 5 and a standard deviation of 2.

D.　　RESULTS

This exploratory research sought to answer to what extent does sense of belonging/satisfaction of immigrant students differ from those experiences of non-immigrant students? In order to answer this broad question, recent immigrants and 2nd generation groups were collapsed and compared to 3rd or 4th generation students. For the analysis we first weighted responses by institution response rates: the weight adjusted proportions to mirror their actual proportions in the population of these institutions (overall response rate bias). This was done in order to lessen the dominance of one institution's response rate of 69%. An independent samples t test was used to compare the mean sense of belonging/satisfaction between non-immigrant students (M=5.52, SD=1.691) and immigrant students (M=5.05, SD=1.775).

Using an alpha level of 0.05, the mean difference was found to be significantly different, $t(30) = 30.506$, $p <.001$, $g = 0.36$, suggesting that there is a significant difference in the average sense of belonging at research universities between these two groups. The confidence interval for the mean difference ($CI_{.95} =.447, .509$) suggests that the non-immigrant group had a higher sense of belonging on average than the immigrant group. This evidence indicates that immigrant status may lead to a lower sense of belonging at major public research universities.

In order to determine to what extent there are differences between immigrant status groups in terms of their sense of belonging/satisfaction a fixed-effects analysis of variance (ANOVA) with immigrant status as a between-subjects factor (Wave 1 vs. Wave2 vs. 2nd Generation Immigrant vs. Non-Immigrant) was conducted. The main effect of Immigrant status was found to be significant, $F(3, 54261) = 282.95$, $p < .001$, indicating likely population mean differences in sense of belonging between the four immigrant status groups. Immigrant status accounted for 1.5% [1.3%, 1.7%] of the total variation in sense of belonging (see Table 2). Figure 1 provides a visual representation of the six mean pairwise differences and their associated confidence intervals. It is clear that differences with respect to sense of belonging/satisfaction within the more recent immigrant generation groups compared to Non-immigrant (3rd or 4th generation) is consistently lower, and that little differences exist between the immigrant groups.

Table 2. ANOVA results for Immigrant Generation Status and Sense of Belonging/Satisfaction

Source	SS	df	F		^{2}
Immigrant status	2487	3	282.95	***	0.015
Error	158967	54261			

- * = P-value < .05; ** = P-value < .01 ; *** = P-value <.001

The significant main effect for immigrant status was further analyzed using the Tukey-Kramer procedure for an unbalanced design to examine all pairwise contrasts. The contrast tests indicated that there was a significant difference in the average sense of belonging between: the Wave 2 immigrant students and the non-immigrant group (Mean difference = 0.428, SE = 0.042; p <.001); the Wave 1 immigrant students and the non-immigrant group (Mean difference = 0.468, SE = 0.027; p <.001); and 2nd generation immigrant students and the non-immigrant group (Mean difference = 0.450, SE = 0.017 p <.001). All other pairwise contrasts were found to be nonsignificant (see Table 3).

Table 3. Results of the Tukey-Kramer Test

Comparison	Mean Difference	SE		$CI_{.95}$	
Wave 2 vs. Wave 1	0.04	0.05		-0.058	0.138
2nd Generation vs. Wave 1	0.02	0.03		-0.0388	0.0788
Non-Immigrant vs. Wave 1	0.47	0.03	***	0.4112	0.5288
2nd Generation vs. Wave 2	-0.02	0.04		-0.0984	0.0584
Non-Immigrant vs. Wave 1	0.43	0.04	***	0.3516	0.5084
Non-Immigrant vs. 2nd Generation	0.45	0.02	***	0.4108	0.4892

- * = P-value < .05; ** = P-value < .01 ; *** = P-value <.001
-Mean difference and standard errors were rounded

Figure 1. Mean differences (with 95% confidence interval bands) in Sense of Belonging/Satisfaction by Immigrant Status
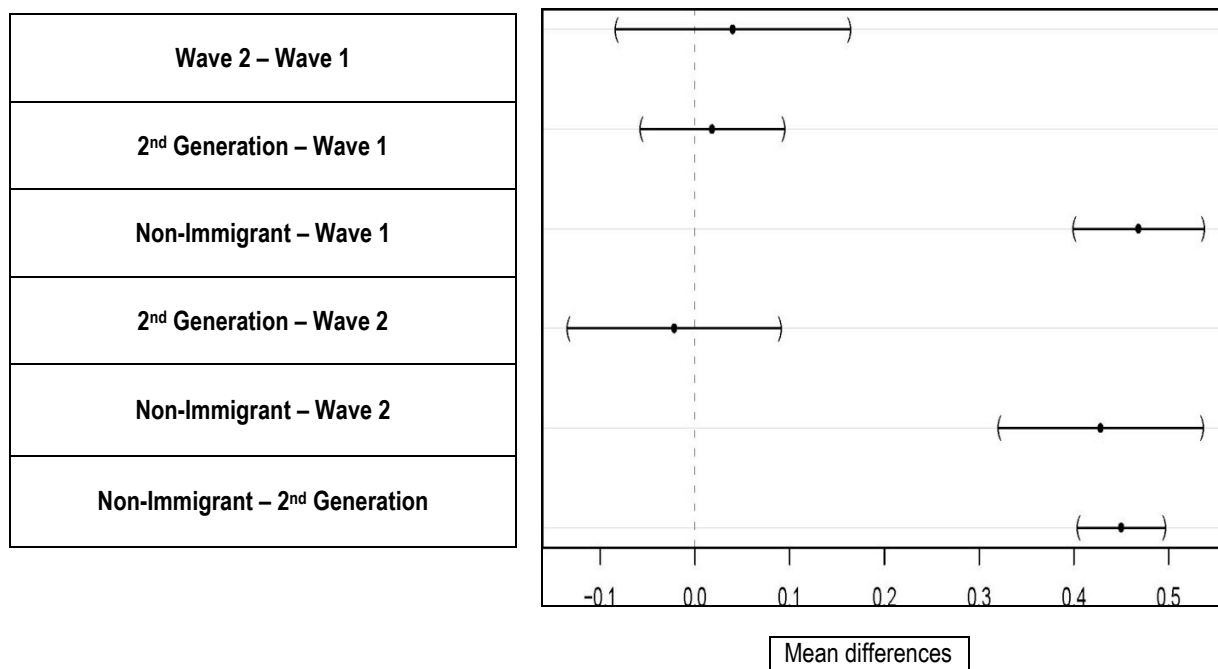
E.   DISCUSSION

The findings of this multi-campus exploratory study suggest that there are significant differences, on average, of perceived sense of belonging and satisfaction between immigrant and non-immigrant students. The study is important in that it contributes to our limited understanding of this important and growing subpopulation of college students. As noted previously, the most significant differences were between non-immigrants (Generations 3 and 4) and the recent generations, including the second generation. Based on these preliminary results, it can be surmised that immigrant college students who attend research universities tend to have, on average, lower ratings/feelings of belonging than non-immigrant students. Given the relationship between sense of belonging, satisfaction, and persistence towards graduation, it makes sense to explore these results and provide implications for practice, policy, and future research. Student affairs practitioners and educators, including administrators, could benefit from this study, and in turn, create interventions and policy changes that address the unique issues and needs of immigrant college students.

Implications for Student Affairs Practice

Student affairs educators -- academic advisers, career counselors, residential life staff, multicultural affairs advisers, student life coordinators, campus health service professionals, student judicial officers, and others -- are in a unique position to better serve the ICS population. Included below are several promising practices that student affairs professionals might consider implementing at their respective institutions pending specific needs of students.

• **Co-facilitate the creation of student-led organization and associations**: Student life and activity coordinators can help immigrant students create and co-lead student groups. These student groups may be focused around race/ethnicity or based around multicultural student populations; the impact of these groups can be especially strong at predominately White institutions (Museus, 2008). For example, at the University of Minnesota-Twin Cities (UMTC) there is a growing Somali Student Association (SSA) that is active on campus. Recently, the SSA group at Minnesota sponsored an event in the community to celebrate the 50th anniversary of Somali independence. The goal of the event was to bring a sense of unity between the university students and the Twin Cities community. Other groups might congregate around faith-based or language commonalities (e.g., Muslim student group). Additional examples of student organizations at UMTC include: Bengali Student Society of Minnesota, Hispanic and Luso-Brazilian Linguistic Association, Hmong Christian Club, Persian Language and Cultural Exchange, and approximately 50 other groups and cultural associations that involve immigrant student participation.

• **Collaborate and reach out to student organizations where immigrants congregate:** Based on the work of Kim (2009) and others (Renn & Arnold, 2003), many immigrant students will opt to hang out in peer enclaves, including student groups where they feel more comfortable (i.e., in comparison to seeking out institutional agents). Student affairs educators and students could benefit from mutual collaboration and partnership around events and activities

sponsored by the student group (Renn, 2003). For example, during National Career Development month (November), career development professionals could offer onsite informal career counseling and sponsor related activities for the student group (e.g., self-assessment exercises). Academic advisers might coordinate onsite advising hours at the actual physical site where the organization meets regularly. These efforts provide visibility for student affairs services, plus allow immigrant students to view professionals as accessible and friendly.

- **Provide opportunities and structures to help immigrant students feel a sense of "place" on campus**: Many immigrant college students are commuters; they do not reside on campus often due to family and work obligations (Erisman & Looney, 2007). This may create a lack of connection with the institution, leading to lower feelings of belonging. Professionals involved in residential life, new student and transfer orientation, Welcome Week, and related programming could explore ideas to create a sense of belonging and place for immigrant students. For example, some campuses have designed commuter lounges where students have a physical locker space to store items throughout the day. Other institutions developed specific services (e.g., academic advising units) for immigrant students and/or English language learners.

- **Create new curricular opportunities where students, including immigrants, can engage academic and socially through high impact educational practices**: Student affairs professionals could benefit from assuming lead roles in creating and implementing new curriculum designed to engage students (Stuart Hunter & Murray, 2007). This collaboration should include working closely with academic affairs professionals (Stebleton & Schmidt, 2010). For instance, Kuh (2008) outlined high impact educational practices that help foster academic and social engagement in undergraduates. Practices include learning communities, first year seminars, study abroad options, service learning opportunities, common book experiences, and others. Student affairs educators could lead key components of a first-year student initiative program, such as teaching a College Success or life-career planning course. For example, at Inver Hills Community College (IHCC) located outside of St. Paul, MN, counseling faculty members helped to create a learning community that was designed for English language learners. Many of the enrolled students were recent immigrants new to the area and the college. Students took 3-4 courses in common with fellow recent immigrant students; this partnership created a greater sense of belonging for students at the institution (Stebleton, 2007).

- **Consider implementing peer mentoring programs, pairing upper level immigrant students with new, incoming students**: As mentioned previously, immigrant college students rely heavily on their family and peers (from similar communities or clans). Advising and multicultural affairs units might consider designing and implementing an immigrant peer mentoring program for new, first-year students (Dennis, Phinney, & Chuateco, 2005). A comparable program is in the infancy stages in the College of Education and Human Development (CEHD) at the University of Minnesota-Twin Cities. First-year East African immigrant students will be paired with immigrant juniors or seniors. The program will likely be paired with other initiatives such as the Summer Bridge and TRiO-Upward Bound services on campus for new students who qualify for the program. The objectives of this program are at least two-fold: 1) Incoming students will have the chance to meet peers that have comparable experiences and are respected leaders and students on campus (e.g., immigrant experience); 2) The program will allow them to become familiar with the institution, therefore, leading to a greater sense of belonging and place on campus.

Implications for Policy
There are at least three policy recommendations that academic and student affairs professionals might consider given the results of this study.

- **Hone admissions, student services, and institutional research procedures and strategies**: Admissions units might benefit from an assigned contact person or team that works specifically with immigrant students, both matriculated and enrolled. Ideally, this outreach person is from an immigrant community and/or is familiar with the immigrant groups being served. Gray, Rolph, and Melamid (1996) outlined several of the advantages and potential disadvantages of creating specific student services and policies for immigrant college students, including topics related to assessment testing, choice of majors, and remediation and academic support programs.

   Additionally, immigrant students often need to take developmental English reading and writing classes (Roberge, 2003). Depending on the program, these requirements (and how they are communicated to students) can be confusing and complex. Several campuses have designed summer acceleration courses where English Language Learners can complete multiple required courses prior to full-time enrollment in the fall (see LaGuardia Community College). Creating a welcoming environment for new immigrant students from the onset of their experience can lead to more positive interactions and a greater sense of mattering, especially for diverse, minority populations (Mellow, van Slyck, & Eaton, 2003).

Finally, many schools do not have a monitoring system to designate and follow immigrant students. This makes it difficult to assess progress over time, including transfers (i.e., many immigrant students will start out in the community college system) and other *student swirl* that is now commonplace in US higher education (Borden, 2004). Admissions and institutional research offices need to devise new strategies to identify and subsequently follow immigrant college students, plus assess ongoing program effectiveness.

- **Add innovative financial aid opportunities for immigrant students**: Like most undergraduate students, immigrant students have financial concerns and needs. Offering a range of financial aid options for students can enhance the likelihood of persistence and degree completion. Special scholarships for targeted student groups such as immigrants can be created via internal or external dollars. These awards may be supplemented through participation in the high impact educational practices mentioned previously. It should be noted that some immigrant families and students will not be in a position to assume financial debt in the form of traditional loans due to cultural and religious practices. Therefore, alternative strategies will need to be explored and implemented accordingly to meet these needs.

- **Encourage faculty educators and student affairs professionals to invest in ongoing training and education regarding changes in the student population**: We know that faculty-student interactions can impact the quality of experiences for undergraduates (both positively and negatively) (Komarraju, Musulkin, & Bhattacharya, 2010; Pascarella & Terenzini, 2005; Wawrzynski & Jessup-Anger, 2010). Administrators can provide training workshops and other learning opportunities for faculty members and staff. These workshops can take the form of content-based information (e.g., providing information about changing demographics via a speaker from the state demographer's office), or be more process-oriented (e.g., diversity training; skills-based classes).

  Gray et al. (1996) mentioned that faculty members may need to address specific issues with immigrant students, including accommodating diverse cultural norms; modifying teaching practices; and addressing academic honesty concerns (e.g., the nature of collaborative work in the US higher education system). Student affairs educators should be encouraged to stay culturally relevant; they should learn more about their students' cultures by engaging and investing in their own learning experiences (e.g., attend international events such as film festivals, read world newspapers, travel). For example, most academic institutions have a Center for Teaching and Learning. Services can be tailored to helping new and returning faculty members enhance their teaching skills to better meet the needs of the changing student demographics arriving on campuses.

Implications for Research
There are at least three implications, including potential challenges for research based on the findings of the present study.

- **Engage in longitudinal studies with immigrant students if possible**. This will continue to be an ongoing challenge. By nature of their experiences, immigrant students can be transient and difficult to follow over time. It will be important to follow the educational journeys of these students; systems will need to be in place to communicate effectively with students over time. The development of students inevitably changes over time and longitudinal studies have the potential to follow this progression (Harris, 2010).

- **Devise meaningful qualitative studies to complement student survey instruments**: Learning more about the lived experiences of immigrant students via thoughtful qualitative interviews can provide insightful in-depth data. This information can complement the data gained from larger survey instruments, such as the SERU. Qualitative studies used in conjunction with quantitative approaches can lead to a fuller understanding of the student experience (Sax, 2008). An example of a research question grounded in phenomenology is: What is the lived experience of first-year immigrant college students who begin their educational journeys at a 4-year, public research university? (Creswell, 2007; van Manen, 1997).

- **Agree on definitions of immigrants and pursue scholarly research on immigrant college student groups:** One of the challenges of the present study was to agree on definitions of immigrants, including the level of immigrant groups. What *exactly* is an immigrant? We are all immigrants when we consider a more global, holistic definition of immigration. How does the definition and understanding of "immigrant" differ from "refugee" from "asylee"? How might issues of citizenship, documented, and undocumented statuses impact the immigrant student experience (as well as their willingness to participate in scholarly research studies?). There is disagreement about the definitions of "first generation" as well as the relevance of "Generation 1.5" (Roberge, 2003).

  A common language with agreed upon definitions is essential so that researchers are speaking the same language and examining comparable terminology. This suggestion connects to the notation about admissions offices and institutional research units providing a more effective monitoring system of immigrant student groups. Future research questions would address possible differences between different types of immigrant experiences. Also, potential inquiries may

explore first-generation status, gender differences, and racial/ethnic variables of SERU survey participants. Finally, scholars will want to explore the other factor domains of the SERU, including *engagement with studies* and *academic disengagement*, as well as the other modules of the instrument (e.g., student life and development, academic engagement, civic engagement, and globalization).

E.   LIMITATIONS OF THE PRESENT STUDY

There are several limitations of the present study that should be mentioned. First, the SERU is a census survey that relies solely on self-reported student data. Porter (2009) outlined and critiqued the challenges of interpreting self-reported student data on surveys that purport to understand student engagement behaviors and measures. His critique focused on the NSSE instrument but the premise can be applied to all student surveys that rely on self-reported behaviors (e.g., use of time spent on tasks, number of alcoholic beverages consumed over a given month).

Second, the overall response rates for the 2009 administration were acceptable, but could have been higher (note: the more recent 2010 SERU response rates were higher). The analysis of this study was weighted slightly for response rate bias. In other words, there were a couple of schools in the consortium that reported significantly higher student response rates; these responses were weighted accordingly (Porter & Umbach, 2006).

Third, we reported that immigrant students had lower perceived feelings of sense of belonging and satisfaction. There could be other "third" factors that account for these differences (Cheatham, 1991). For instance, one could argue that being a new immigrant in a new home is a life-altering, marginalizing experience by itself. In other words, the immigrant experience may likely create a sense of loss due to the many transitions involved in the process (e.g., separation, civil war, discrimination, racism, natural disasters). It is possible that some of the immigrant students in this study lacked a strong *sense of belonging* prior to starting college; their college experience may have contributed to these feelings. Utilizing a mixed-methods approach, further analyses in the form of qualitative interviews combined with multivariate statistical models will provide nuanced clarification and control for analyzing the independent effect of immigrant generation on this outcome.

Fourth, for purposes of this initial analysis, we collapsed certain immigrant categories to create more global classifications. In the future, scholars may opt to take a more narrowed approach to the analysis. Future studies will do so and build on the exploratory nature of our work.

Fifth, for purposes of this study, we did not distinguish between *immigrant* status and *refugee* or explore the voluntary and involuntary reasons for immigration. This would need to be done in a follow up qualitative study; a concrete suggestion would be to add a specific survey item to help identify this unique subgroup.   One could surmise that the *refugee* experience is uniquely distinct from an *immigrant* experience (i.e., involuntary vs. voluntary reasons for leaving one's home country and coming to the United States).

F.   CONCLUSION

Changing student demographics at post-secondary institutions provide ongoing support for research on immigrant college populations. The purpose of this exploratory study was to examine the differences between immigrant and non-immigrant students' perceived reports of sense of belonging and satisfaction using the SERU 2009 data source. Results indicated that immigrant students tended to report lower levels on sense of belonging, on average**.** Immigrant college students may be more likely to persist and reach academic and career objectives if they feel a sense of belonging and mattering at their respective institutions. Implications and strategies for practice, policy, and research were clearly outlined to better assist this growing student population. Future research on immigrant college student groups is needed at 2-year and 4-year postsecondary institutions.

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