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# Indicators of Persistence for Hispanic Undergraduate Achievement: Toward an Ecological Model

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## Abstract

By examining Hispanic students both currently and formerly enrolled at a private, Hispanic-serving Institution located in the Southwestern region of the United States, this study attempts to understand the factors that lead to Hispanic undergraduate persistence to graduation. Adapting Bronfenbrenner's theoretical approach, this study explores three dimensions that are critical to understanding Hispanic undergraduate persistence to graduation: (a) the role of the student context (b) the role of the university context in the student's decision to persist; and (c) the interaction between the two contexts.

## Resumen

A través de examinar estudiantes Hispanos inscritos actual y previamente en instituciones de servicio a hispanos localizadas en la región suroeste de los Estados Unidos de América, este estudio trata de entender los factores que dirigen la persistencia para graduarse. Adaptando el modelo teórico de Bronfenbrenner, este estudio explora tres dimensiones que son críticas para entender la persistencia y graduación en estudiantes de pregrado: 1) el papel del contexto del estudiante 2) el papel del contexto universitario en la decisión del estudiante para persistir; y 3) la interacción entre los dos contextos.

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**Introduction**

Recent educational and social research has revealed considerable differences between Hispanic and other ethnic groups in postsecondary educational attainment. According to Garcia and Bayer (2005), significantly fewer Hispanic students attain postsecondary education after high school. Castillo et al. (2006) report that 9.6% of Hispanic Americans in the United States obtain their bachelor's degree compared with 26.8% of White Americans; and of Hispanics who do enroll in college, only 23% obtained their bachelor's degree, compared with 47% of non-Hispanic White college students.

National data indicate an increased enrollment of Hispanic students in postsecondary education. According to National Center for Education Statistics (NCES) (U.S. Department of Education, 2008), the Hispanic student enrollment at 4-year institutions of higher education for Fall, 2007 was 8.6% of the total undergraduate enrollment. Further analyses of these data by type of institution reveal that Hispanic students comprise 9.5% of the student population in 4-year public institutions; 6.1% at private, not-for-profit institutions and 9.7% at private, for-profit institutions.

Nevertheless, Perna (2000) states that although more Hispanics are attending colleges and receiving degrees than ever before, Hispanics continue to be underrepresented among both undergraduate students and bachelor degree recipients relative to their representation in the traditional college-age population. These current statistics reveal a need for further investigation into the factors contributing to Hispanic college persistence to degree completion.

The study reflects the results of an investigation of the indicators of successful Hispanic undergraduate persistence to graduation at a private, not for profit Hispanic Serving Institution (HSI). The researchers employed qualitative methods as a means to directly engage current and former Hispanic students in a discussion of indicators of persistence. Rather than comparing and contrasting Hispanic students to other minority groups, we focused on the academic achievement of the Hispanic undergraduate population at a Hispanic-Serving Institution with a high Hispanic (greater than 70%) and first-generation (greater than 60%) undergraduate student population. Thus this study contributes to the literature on student success at HSIs (Laird, Bridges, Morelon-Quainoo, Williams, & Holmes, 2007) and uniquely contributes by focusing on the experiences of Hispanic students at a private, rather than public, university in the southern United States.

Furthermore, this study examined the variation in academic achievement of Hispanic college students by considering the university context. How do students' experiences and environmental factors contribute to retention? Therefore, this article makes a significant contribution to the literature by looking at both Hispanic students' individual factors and skills and how individuals interact with the environment to produce diverse outcomes.

An introduction of the study's theoretical perspective is germane at this point. Given that persistence involves both individual and environmental factors, Bronfenbrenner's (1979) ecological theoretical framework seemed most appropriate. He theorizes that the individual cannot be understood without understanding how he or she interacts with the environment. The interaction has three dimensions: (a) the micro interaction between two individuals; (b) the meso interaction between environments; and (c) the interaction between the individual's environment and the external environment. For the purpose of examining persistence, we understood the meso environment as the interaction between the student context and the university context. The study offers the Bronfenbrenner's theoretical perspective at the outset of this article not as a reflection of when it became an essential part of the study but as a guide for understanding the study itself.

## **Review of the Literature**

### *First Generation and Hispanic Students*

Researchers have focused on how first generation status influences persistence. A study comparing the determinants of persistence for first generation and continuing generation students found that Hispanic first generation students were 34.5% less likely to persist than White first generation students (Lohfink & Paulsen, 2005). They also reported that with these Hispanic students, each US\$10,000 increase in family income was associated with a 2% increase in the probability of persistence. Saunders and Serna (2004) analyzed a longitudinal database, which focused on students' inclination to mobilize support around academic, financial, and personal issues while embedded within the college culture. Findings suggested that those students with less social support and lack of understanding of the formal structures of the university had lowered persistence (Saunders & Serna, 2004).

In persistence studies where the focus is "the student," discussions frequently address students' academic deficiencies, the need for academic remediation, recognition of their high financial need, and their unfamiliarity with postsecondary education (Pew Hispanic Center/Kaiser Family Foundation, 2004; Rendón, Lee, Castillo, & Tobolowsky, 2007). Related studies have addressed patterns of students' racial, ethnic, and/or cultural backgrounds and educational participation or attainment levels (Castillo et al., 2006; Gonzalez, 2002; Ortiz & Santos, 2009). Research on Hispanic or Latino students' well-being during their tenure as students (Gloria, Castellanos & Orozco, 2005; Gloria, Castellanos, Lopez, & Rosales, 2005; Gloria et al., 2009) support the need to study the impact and interactions of students' culture, support base, and university environment.

### *Environmental Factors*

Several studies illuminate the understanding of the interaction between student and environmental factors. Rendón et al. (2007) devised a best practices model, which was developed

from a teleconference of educators around the nation. Participants suggested that stressing assessment and accountability, affirming diversity in and out of the classroom, and creating inclusive classrooms and campus climate can increase student persistence.

Some studies examine the influence of university context on student success. The psychosociocultural framework proposed by Castellanos and Gloria (2007) promotes the need for greater “cultural congruity. . . which prompts their interpersonal connectedness and subsequent cultural validation within their university environment.” (p. 391). Tinto (2000) and Tinto and Goodsell-Love (1993) conclude that student success is highly influenced by the universities’ support systems. In addition, the results of these studies found that collaborative learning helped students engage in active learning and bond to broader social communities.

Furthermore, both Lacy (1978) and Tinto (1993) suggested that student persistence increased when universities make an effort to help students integrate into the college social and academic settings via socializing agents and interpersonal relationships. Despite the best efforts of the university, student success is still influenced by students’ attitudes and backgrounds. Elkins, Braxton, and James (2000) conducted a study that examined persistence of 411 first-time full-time freshmen. They surmised that student persistence was positively influenced by both prior parental support and the perceived need to reject past attitudes and values.

Fry (2004) studied college persistence of Hispanic youth and found that factors contributing to college persistence of Hispanic students included college selectivity, college pathways, and college preparation. In addition, an unwelcoming environment for Hispanic students, in a predominantly White university hindered their academic performances (Gonzalez, 2002). Castillo et al. (2006) found that a student’s perception of the university environment mediates the relationship between ethnic identity and persistence attitudes. A survey of 180 Hispanic students revealed that participants with higher ethnic identity perceived the university environment with more negativity, especially when the students’ cultural heritage diverged from the university’s core beliefs (Castillo et al., 2006).

This study focused on the indicators of Hispanic undergraduate persistence at a private, not-for-profit HSI. Key factors from the literature review ranged from macro-level forces to individual constructs that affect persistence (e.g. environmental and social factors, college selectivity, and first generation status). These indicators helped formulate components of our research design.

## **Method**

The site of our research was a small private HSI in the southwestern part of the United States. The study employed qualitative methods as a means to directly engage current and former Hispanic students in a discussion of likely indicators of persistence and nonpersistence. Through in-depth analysis and scrutiny, this study was able to grasp the pressures, interactions between the environment and subjects, and the subsequent behaviors (Yin, 1994).

Participants were selected via two methods: random selection from a sampling frame provided by the University's Office of Institutional Research, and snowball sampling. We randomly selected juniors and seniors in both the humanities and sciences. Former university students who had not persisted were randomly sampled from the 2002/2003 freshmen cohort. We utilized a snowball sampling method to contact six key Hispanic professionals. With the purpose of selecting a diverse group, 3 of the participants were graduates of the humanities and 3 graduated from math and the sciences.

Two major qualitative methods were employed: individual interviews and focus groups. The research team collected data on a total of 33 cases. We interviewed 16 current students during focus groups; 11 face-to-face and/or phone interviews were conducted with previous students who did not persist; and 6 college graduates who are successful professionals were interviewed in person. The focus groups were both men and women from the humanities or science majors. The key informants were selected from a snowball method to select diverse majors. Using interview guides, the research team focused on the "push and pull" factors (i.e., "What kept you in school? "Why did you leave?") and information that pertains to university context.

Ensuring interrater reliability was a priority in this study. To produce reliable data, the same two individuals conducted the focus groups and the interviews. The moderator's guide for the focus groups was developed by project staff and field-tested through conversations with students on campus. The interview guide for the interviews with the previous students who did not persist was developed by project staff and field-tested for reliability with students on campus as well. The guide for the key informant interview was simply an initial general question about the enablers of persistence and the barriers that the informants had to overcome to persist.

After transcribing the interviews verbatim, the research team coded the data using a transcendental phenomenological approach, thus shifting from interpretation of the essential meaning of the phenomenon to descriptions of the participants' experiences (Woodruff, 2007). All research team members engaged in the process of *epoché*, whereby they set aside their personal biases and preconceptions to facilitate the emergence of core conclusions grounded in the data. Coding of the transcripts involved the process of *horizontalization*, the identification of significant statements in the form of sentences or phrases that provide insight into the participant's experience of the phenomenon (Moustakas, 1994). These statements were clustered to develop the major themes that comprise the results.

## Findings From the Qualitative Study

Characteristics within the three following dimensions appear critical in either promote or hindering Hispanic undergraduate persistence.

1. Student context, such as family issues and first generation status.
2. College context factors that create hurdles or bridges in persistence.
3. The interaction between the student and college context.

To understand the underlying obstructions to persistence, this study compares and contrasts the relevant experiences of “persisters” or those students who are or have been successful in moving toward their educational goals—current undergraduates and professionals—to the experiences of “nonpersisters.”

### *Student Context*

*Persisters’ experiences.* Unlike the literature review findings suggesting that first generation university students are at a greater attrition risk, the participants found their first generation status as a motivating force to persist, not a hindrance to persistence. Students described their parents as encouraging if not always able to financially support the students’ academic efforts.

Well I think [first generation status] as an advantage. Both of my parents are or were Mexican immigrants before coming here. They suffered because they don’t have an education. They don’t know how to speak English right and they always try to tell me, they are like, “Go to school, go to school and you won’t suffer.” . . . And I take that as motivation, like I have to finish school so I can be a successful person. (Persisting student)

Likewise, professional participants cited supportive parents as a major factor in encouraging persistence. For one professional, her parents had a sole focus on her educational goals. Another participant insists that first generation status was a major source of encouragement rather than a detractor.

If anything it’s [first generation] a motivator . . . your parents want you to . . . take advantage of the opportunities that they did not have . . . I was the first one in my family to get a master’s . . . it’s also a good thing for the family, a good thing for future . . . I see it more as a motivator. (Persisting student)

*Nonpersisters’ experiences.* For nonpersisting students, work and family were other noncollege factors that students must contend with along the road to a college degree. Indeed, family crisis or unexpected happenings form major hurdles in the pursuit of higher education.

I kind of started to slip in school and then my little brother had passed away and I kind of lost track of life . . . (Nonpersisting student)

Mmm . . . well my wife got pregnant . . . well it was the money and then I had to work, because you know, I was going to have a kid. (Nonpersisting student)

For other interviewees, lack of motivation is another concern. Below, a nonpersistent student illustrates how listlessness and confusion create barriers to degree completion.

I was really confused about what I was going to do with my life. I had changed my major a couple times. . . . I was also going through a really really, really bad breakup. . . . so I came home. (Nonpersisting student)

I just decided that I was going to take a break . . . from school altogether. I decided instead of going you know, part-time, and not giving it my 100%, I would just take a year off. (Nonpersisting student)

As observed in conversations with nonpersisting students, lack of persistence is intricately tied to both student preparation and circumstances. Those who did not persist cited burdens of employment and family.

In summary, by comparing and contrasting the experiences of both sets of individuals, one issue becomes clear. It appears that motivation from family and friends is vital for students' perseverance. Those that were most successful seem to have very supportive loved ones and mentors who acted as cheerleaders for the students' long-term goals. In contrast, those that struggled, seemed to be encumbered by family crises, family responsibilities, and lack of motivation. Many students found it exceedingly difficult to continue working past their personal issues and instead, decided to drop out.

### *College Context*

*Persisters' experiences.* The following section presents the university issues that persisters expressed as either hindrances or advantages to their educational goals. According to several informants, the presence of enthusiastic and available faculty and staff members is an important ingredient in keeping students engaged.

When you have professors, like when you have a professor that doesn't want to be there that is just completely . . . Specifically like Dr. (name) and Dr. (name) . . . when they talk about the material that they focused in, they have such a passion for it and that makes me want to work harder in their classes. (Persisting student)

. . . they had the learning center at the Flores lounge . . . I was asking for someone, and I go down there and . . . they [say] . . . go over there and read your book and then come over here if you have a question. . . . you know, why bother? (Persisting student)

Meeting students' administrative and financial needs and expectations is another source of contention. Access to financial support and a wide array of programs and

activities are major concerns for students on campus. Although these students are succeeding in their goals to degree completion, these young scholars felt that both financial and transfer concerns were nonetheless an important obstacle to their dreams.

I know a lot of students who work off campus to make that extra money because with work study you only make that \$5.15 . . . what's \$5.15 . . . I was like well let me find a job off campus. (Persisting student)

[Classes taken at a local community college] didn't transfer over here and they said everything would be ok. So now I have to [re]take those classes . . . so I can graduate in May. (Persisting student)

In general, it appears that a one-to-one atmosphere encourages pursuit of educational goals. Another student found disappointment when classes did not transfer from the community college to a 4-year university. Although, this miscommunication did not keep this particular student from continuing their education, it was cited as an unnecessary hurdle along the pathway to higher education. Like many other students, this disorganization might lead to course redundancy, wasted effort, money and time for undergraduates, which in turn, might encourage attrition.

For professional informants, supportive faculty and staff provided direct guidance for maneuvering the hardships of college life and of racial identity politics. This guidance and reflection on the part of some informants had positive results in their educational goals. Below, a former male humanities student illustrates the struggles of racial politics within academia.

And you know I think in my case why college became a big reason that became an issue. I don't remember that being the case in high school, but everyone there was Latino. There were significant, I had two significant issues in college and one in grad school that I felt in each of those three situations there were assumptions made about my academic ability. . . . I ended up having to drop out of some classes and the whole thing just because I couldn't continue in those classes. So it became, it was a big issue, it became, I think race became an issue through a lot of academic stuff. (Professional; Nonpersisting student)

*Nonpersisters' experiences.* Students who discontinued their education provided further insight into the influence of the college context on educational attainment. For these students, a lack of supportive faculty and staff was a major contributor to the derailment of educational aspirations.

I expected more encouragement, more help, somebody to tell me that I could do it. I think, somebody to be there that I could count on and to help me. (Nonpersisting student)

According to these informants, the universities' inability to meet students' broader interests is another major concern. The following quote exemplifies this criticism.

It was not the college experience that I was expecting . . . There aren't the organizations there are in other schools as far as I guess an athletic program.  
(Nonpersisting student)

Nonpersisting informants provide powerful examples that illuminate our understanding of the connection between university environment and student persistence. For the students who did not continue their education, inability to form a sustainable connection with the university was a major issue. Being disengaged took a couple of forms. In some cases, the absence of diverse campus activities and athletic programs was a major issue. For others, the lack of mentorship from faculty and staff was a major hurdle. Certainly, as the previous student context section illustrates, inability for students to connect with a campus community is even more of a challenge for students who also face family and work issues outside of campus.

Overall, similar themes arose among both persisters and nonpersisters, which was quite interesting. There was a clear consensus in all groups interviewed that a welcoming, one-on-one, diverse, and engaging university climate is pivotal to ensure persistence among students. College context aspects that enhance the likelihood of success include informal and formal opportunities for social interaction within the student community, and recreational activities and consistency in the application of university policies related to degree plans and financial assistance.

It appears that the burden of proof to enhance the likelihood of persistence lies with the university. As the statements above illustrate, both persisting and nonpersisting students argue that to remove the roadblocks to academic achievement, it is imperative to have devoted professors and staff to assist students with learning and maneuvering university bureaucracy. In summary, to encourage persistence, the university must create a climate of support. Universities must develop programs and encourage faculty and staff development and training. The obstacles that students face might become insurmountable, especially for those who are already ill prepared and overwhelmed. For these vulnerable students, these impediments might become large enough that the most suitable response is to drop out.

### *The Interaction Between the Student and College Context*

*Persisters' experiences.* Finally, the interaction between the student and college context is another important dimension in either creating unnecessary burdens or easing academic stresses. For some students a recognizable cultural identity within the university is a major benefit. In the sample university, there is a significant presence of Hispanic students on campus (approximately 70% undergraduate and 54% graduate) and many events cater to Mexican American culture, history,

music, and dance. A former professional explains his interaction with this bicultural campus.

There was just something about the cultural connection that you can make . . . I could make a much faster cultural connection with somebody who is Latino . . . I think there is a certain unspoken shared experience and common cultural language that just a simple, “¿Órale, cómo estás?” kind of makes you just feel like you’re Hispanic. (Professional)

As the above student illustrated, some informants’ transition from home to college was positively assisted by common cultural heritage. Shared cultural experience seems to offer emotional support, which in turn encourages engagement and persistence.

*Nonpersisters’ experiences.* For some, the interaction between students’ personal life and the academic concerns undermined educational pursuits. Indeed, without additional support from either family or the campus services, many students found it difficult to juggle both work and academic schedules.

I don’t think they, I guess, catered enough to people who worked outside of campus who were struggling with a different type of schedule or who you know weren’t able to get off all the time so they could study for midterms you know . . . It was kind of like if you weren’t able to study because you have a second job, its your fault. (Nonpersisting student)

I’ve always been taught that if you want something you have to work for it. That is what I’ve done and that’s why my last year here kind of messed me up a little bit. I was so loaded with work, not just school, but work, work and it was just hard to balance it out. (Nonpersisting student)

My grades started dropping and I was more tired. I didn’t want to study and you know, do everything and so forth. I think that’s when everything started going downhill, when I started working. (Nonpersisting student)

For nonpersisters, it was extremely difficult to handle both the responsibilities of home life and school life. For each nonpersisters, working presented itself as the major hurdle. Without flexible and diverse college schedules, this meant that these hurdles became impassable.

By interviewing successful and less than successful students, an interesting difference emerges. Victorious undergraduates found the interaction between their self-identity and the cultural atmosphere of an HSI to be a major catalyst for success. On the opposite side, there was a clear consensus among those that discontinued college. The interaction between work and college schedules was the major obstacle. The inflexibility of college courses made it impossible for students to juggle outside life

with academic life. Unable to sacrifice job responsibilities, college was too easily dismissed and students left college.

In summary, as observed in both nonpersistent and persisting students' statements throughout various contexts, lack of persistence is tied to both student background and responsibilities and obstacles or challenges within the university context. Those who do not persist cited burdens of employment and family. Other students felt unengaged by faculty. Without this student–faculty interaction and additional university support, some students found it difficult to continue working past their personal issues and instead, decided to drop out.

## Discussion

A number of indicators of persistence emerged from our focus groups and key informant interviews with successfully persisting students, students who have left the University without graduating, and with Hispanic professionals in private and public enterprise. It became evident early in the discussions with students and professionals that several persistence factors that emerged could be categorized into individual and university-level factors. With this distinction in mind and a growing awareness that the distinction was likely an interaction between the student's personal and cultural context and the university context itself, we concluded that a contextual analysis of the interaction was necessary to more fully understand the student–university dynamic.

The student context is highly influential in either creating support or obstacles for students. A surprising finding was that being first to college was not a burden but a source of strength for many students to continue their education. Our study challenges previous research on first generation students by addressing the complexity of the students' personal experiences. Instead of perceiving their first generation status as a deficit, participants viewed their status as a motivating force for continuing their education.

In summary, for the student context, certain factors greatly influence student persistence. Familial encouragement is paramount. This is a core element for many Hispanic groups. Many students recounted with great enthusiasm how their parents and family members pushed them to go to school and work hard. Just as family can be a source of strength, for others, it serves as major hurdle. In many instances unpredictable family crisis led to depression and sapped student motivation. Another quite common pressure that undergraduates face is the difficulty in juggling family, work, and educational obligations. With the absence of sufficient university or community resources to alleviate these pressures, these personal obstacles ultimately discourage students and make withdrawal from the university the more reasonable choice.

In terms of the university context, we discovered that students who persisted cited faculty and university support as a major source of assistance. The overall quality of the university climate was vital for all informants' educational pursuits. Students point to key aspects within this environment that are most important in enhancing the likelihood

of success. Among these vital attributes in college are university resources and a supportive staff that run these facilities.

On many occasions, participants identified passionate faculty as a major source of encouragement. Availability of resources and quality teaching contribute to the “one-to-one” college environment that some students indicated was a highly attractive quality of this university and encouraged their commitment to educational goals. It appears that, consistent with literature review findings, universities must create a climate of support for students both among faculty, staff, and administrators to encourage persistence.

Finally, to understand student retention, it is vital not only to look past a sole focus on student context or the college context but also to examine how these interrelate to create the final educational outcomes. Certain factors seem to be most conducive to helping students to succeed in college. According to some informants, creating a shared cultural experience for Hispanic students seems to offer familiarity and emotional support, which in turn encourages persistence.

The findings of this study suggest that universities must bridge the gap between the student context and the university context. In particular, universities should create an environment that simultaneously utilizes the familiar cultural and familial connections and alleviates the pressures arising from the student context. Specifically, our analysis suggests that universities, specifically those with higher enrollment of Hispanic students, need to consider students’ personal issues. It is in the best interest of universities and students alike to create a supportive university with easily accessible resources that help students at risk for dropout. In our sample, nonpersisting students most commonly indicated the stresses of family and work as barriers to persistence. Additional services can aid students in overcoming the life issues, particularly, scheduling conflicts and accessible day care to name a couple.

In conclusion, this study’s findings significantly contribute to the field because it allowed us to flesh-out the micro-level factors influences on student persistence. Bronfenbrenner’s theory of development allowed us to conceptualize student persistence. Interviewing participants revealed that three dimensions appear to be critical to understanding the factors that promote Hispanic undergraduate persistence: student context, college context, and the interaction between the student and college context.

### *Limitations and Implications for Future Research*

The strength of this exploratory study was the qualitative design, which allowed the researchers to truly capture the students’ persistence experiences from a multilayered perspective. Despite the many strengths of this study, one possible limitation is the low case number. To ensure representativeness, the team must expand their efforts beyond one college. Indeed, the promising findings of this study beg for further research at other Hispanic Serving Institutions (HSIs) across the nation to compute the varied experiences in other states and other universities. This study calls for further research to test the impact of private versus public institution on student success as well.

Specific variables of interest are ethnic identity and cultural attachment of Hispanic undergraduates at HSIs. These should be examined using a multivariate analysis. Once this larger analysis is complete, using similar approaches designed in this study, the researchers will be able produce valuable information via publications, manuals, and conference talks. The hope is that subsequent studies will develop a best practice model for HSIs. By coordinating with other experts, this project will allow administrators, staff, and faculty to improve the underwhelming academic performance of Hispanic students in the American colleges.

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## Bios

**Renelinda Arana** is an assistant professor and director of the Sociology Program at Our Lady of the Lake University. In addition to conducting research on student engagement and retention of Hispanic students in higher education institutions, Dr. Arana's scholarship focuses on immigrant and refugee mental health and the civic incorporation of transnational immigrants.

**Carrie L. Castañeda-Sound** is an assistant professor in the Clinical Psychology program at Pepperdine University. Her research interests include the training needs of Spanish-speaking therapists, ethnic identity development of Latino adolescents and young adults, and the impact of immigration on individuals and families.

**Steve Blanchard** is a Sociology Professor and Chair of the Department of Applied Social and Cultural Sciences. Dr Blanchard's work specializes in the spatial analysis ambient mercury; contextual (composite and global) analysis, macro influences on individual level behavior; social demographics of inequality; hierarchical modeling of social and health differences that partitions individual, group, and place effects.

**Teresita E. Aguilar** is a professor in Education, former Dean of the School of Professional Studies and the new director of the Center for Mexican American Studies and Research at Our Lady of the Lake University. Her teaching and scholarly interests are in multicultural education, measurement in diversity, and ethnic identity. She is also interested in spirituality in higher education.