

*Institutional Level Catalysts and Constraints*

**INFLUENCE OF AN IDENTIFIED  
ADVISOR/MENTOR ON URBAN LATINO  
STUDENTS' COLLEGE EXPERIENCE**

**VASTI TORRES, PH.D.**

*Indiana University, Bloomington*

**EBELIA HERNANDEZ, PH.D.**

*Rutgers University, New Jersey*

**ABSTRACT**

This study considers the scales previously used by Nora, Kraemer, and Itzen (1997) and Torres (2006) as contributing to the retention of Latino/a college students. *T*-tests were used to compare the scale means between students with an identified advisor or mentor and those that have not identified one. The data is from Latino college students at three urban universities who were surveyed each spring for 3 years. Using longitudinal data, the results indicate that students with an advisor/mentor consistently have higher levels of institutional commitment, satisfaction with faculty, academic integration, cultural affinity, and encouragement.

The literature in higher education has focused its attention on the needs at-risk populations have to help find their way through the maze of higher education. At the core of helping these students maneuver the college environment is the belief that the more information they have about major requirements, campus culture, and university policies, the more likely they are to be retained, be academically successful, and eventually graduate. Many at-risk students are first-generation students in college, making the need to have guidance about

information and socialization critical to their ability to stay in college and succeed (McDonough, 2004).

For Latino students, the navigation of college life can possess additional challenges due to various factors that place them at a disadvantage compared to students of other cultural backgrounds. Most Latino students may lack the social knowledge of how to navigate the college environment successfully and do not recognize when they should be asking questions (Torres, Reiser, LePeau, Davis, & Ruder, 2006). They cannot turn to their parents for information regarding how to apply to college and seek out resources on campus because many of them are first generation in college. A large percentage of Latino parents have low education levels and/or are unfamiliar with the American educational system (Gloria & Segura-Herrera, 2004). This creates a system where many Latino parents do not have the necessary information to pass on to their children about how to be successful in college. It has been found that encouragement from parents is important to Latino students (Nora & Cabrera, 1996) and this lack of information can impede the level of encouragement given by parents of first generation college students. In addition to this lack of knowledge, Latino students find themselves further challenged in an educational environment that they perceive to be hostile, which in turn directly affects their sense of belonging. Hurtado and Carter (1997) revealed that students who described their campus environment as characterized by racial-ethnic tension were more likely to have significantly lower levels of a sense of belonging.

These challenges were illustrated in the qualitative accounts given by students who were part of a longitudinal, mixed-methods study that investigated the college student experience for Latinos at three urban universities across the United States. As part of this research study the Latino/a students talked about the importance of having someone who supports and advises them about their academics and personal choices. Because this study was longitudinal in nature and because the students mentioned the difference of having advisors and mentors made to them, an item was added to the survey for the second year of data collection to assess the number of Latino urban college students who had indeed identified an advisor/mentor. This article focuses on understanding the influence having an identified mentor/advisor had on the scales that were previously found to influence Latino students' intent to persist (Torres, 2006).

In order to consider the influence of an identified mentor/advisor, a review of the literature is provided to illustrate what is known about mentors and advisors. Then the actual study will be described along with the results of the analysis.

## REVIEW OF THE LITERATURE

The first construct that needs to be considered are the definitions of mentoring and advising. These definitions illustrates why these two terms are being used in conjunction rather than separately. Once the definitions are presented, literature

on advising and mentoring is presented as well as a short review of the factors that influence retention. For the purpose of this review, whenever possible we will concentrate on the research specifically linked to Latino college students.

### **Defining Mentoring and Advising**

Various studies consider the multiple definitions of mentoring. Healy and Welchert (1990) proposed a developmental-contextual definition that considered the symbiotic nature of mentoring as well as its purpose. Mentoring is “a dynamic, reciprocal relationship in a work environment between an advanced career incumbent (mentor) and a beginner (protégé) aimed at promoting the career development of both” (p. 17). To distinguish mentoring from other helping relationships, such as teaching, the aspect of *reciprocity* between the mentor and the protégé is highlighted to acknowledge the benefits of a mentoring relationship for both. Teaching and supervisory roles are not reciprocal as the focus is on the development of the learner, thus they can only become a mentoring relationship if career development becomes an objective for discussion by both the teacher/supervisor and the student.

Evanoski (1988) defined the multiple roles that mentors play in the development of their protégés, or mentees. The roles include: being a teacher to enhance the skills and intellectual development of the protégé; a sponsor to facilitate a protégé’s entry and advancement; a guide in welcoming the newcomer into a new social world; a person who helps the protégé understand the organizational values, culture, customs, resources, and key players; and a source of support. These mentoring roles further define the role that a mentor plays in the development of his/her protégé because they demonstrate that mentoring requires more than providing opportunities and networking connections, but also the support and encouragement coupled with appropriate teaching and practicing of skills necessary to take advantage of these opportunities. In addition, these roles illustrate the ways that mentors can facilitate the academic and social integration of Latino students into their new environment.

The definition of advising that is of interest in this study is one that is consistent with developmental advising. Winston, Miller, Ender, and Grites (1984) defined developmental advising as a relationship focused “on identifying and accomplishing life goals, acquiring skills, and attitudes that promote intellectual and personal growth” (p. 19). This definition of advising is consistent with Healy and Welchert’s (1990) notion of a relationship between two individuals as being an effective approach to promoting career development as well as Evanoski’s (1998) notion of helping someone with entry and advancement in a new social world (college life). For these reasons the two terms are used interchangeably in this article. While the primary intent of advising may be to focus on the development of the student and not the development of a reciprocal relationship of a mentoring role, the advising relationship can evolve into a mentoring

relationship. The major difference between mentors and advisors is that advisors are more easily assigned in academic settings and while mentors can be assigned, those relationships most often evolve over time. The choice to use both terms in this study was to be inclusive of an advisor that evolves into a mentor while also acknowledging potential mentoring relationships.

### **Role of Advising and Mentoring on Retention**

Having an advisor or mentor is most closely associated as influencing the academic and social integration into the campus community (Tinto, 1993). As part of Tinto's model, this integration was seen as critical and in regard to Latino students the need to belong would certainly influence their persistence in college. Tinto's (1993) theory of student departure highlights the positive influence that a sense of belonging has on undergraduate college student persistence. Positive experiences, such as connecting with faculty and staff with common cultural values and being part of activities which welcome students to the campus, that integrate students into the campus culture reinforces persistence by increasing their intention to complete their educational goals and their commitment to a particular institution. Negative experiences, such as dealings with racism and lowered academic expectations that further alienate the student from his/her peers, weaken these intentions and commitment to the institution, thereby increasing the likelihood of leaving college (Hurtado & Carter, 1997; Nora & Cabrera, 1996).

In regard to Latino college student persistence, Torres (2006) found that encouragement, defined as the level of support the student has to pursue education, had a strong direct effect on institutional commitment and a strong indirect effect on intent to persist for first year urban Latino college students. Many times encouragement comes from mentors and advisors within the college setting. This finding places encouragement as a stronger effect than academic integration in the first year of college for Latino students. While this should not undermine the need for strong academic behaviors, it does illustrate the cultural nuances that are particular to Latino college students since it has been shown that they believe encouragement an important factor when they consider their intent to stay in college.

Mentoring has been shown to be an effective strategy that addresses the need of college students. Faculty/student mentoring programs have been found to increase grade point averages and lower dropout rates (Campbell & Campbell, 1997). These programs are important for Latino students who need a knowledgeable guide to help them navigate their way in higher education. The mentoring of Latino college students has been linked to increased levels of persistence and students' positive perceptions toward their college environment. Zalaquett and Lopez (2006) utilized the narrative stories of 13 Latino students who were academically successful, bilingual, and had demonstrated financial need, to find a

significant impact of college mentoring on the majority of the participants. These students' narratives described how their mentors welcomed them to the university, acquainted them with the institution's organizational values, culture, customs, and resources; and provided advice and moral support. These students also credited their mentoring relationships with integrating them into the campus community, developing their confidence, and being a source of encouragement to be successful in college.

In a study by Bordes and Arredondo (2005), it was found that the Latino students who believed they had a mentor had a more positive outlook toward their university environment. In addition to revealing the positive impact that mentoring had for these students, this study also sought to investigate if the race/ethnicity and/or gender of the mentor would have a significant impact for Latino students. Specifically, they wanted to know if the benefits of mentoring would be increased if Latino students were paired with Latino mentors who could connect with them culturally, as well as being models of successful Latinos. They concluded that there was no significant difference in the ethnicity and/or gender of the mentor on the overall impact of mentoring for these Latino students. This lack of significance in comparison to other studies (e.g., Santos & Reigadas, 2002) may be attributed to the fact that the participants were first-year students only a few months in school and may have only begun to develop a mentoring relationship.

Like mentoring, academic advising seems to be most effective when this function is able to incorporate the elements described in the mentoring process (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007). When considering advising, it is the quality of that advising that is often brought into question, and therefore, the focus this section was on the mentoring literature rather than the academic advising literature.

### **Factors that Influence Retention**

While mentoring has been found to influence grade point average (g.p.a.) and self-efficacy, one of the gaps in the literature is investigating the influence of mentoring on factors that have been found to be important in the retention literature. In the regression formulas used in many retention studies, mentoring has not been considered. For this reason, this section will identify some of the factors that could be influenced by mentoring and have been found important in the retention of students.

The main retention models (Bean, 1980, 1983; Tinto, 1993) see retention as a complex set of interactions between the student and the college environment that can be mitigated by pre-college characteristics and a successful "fit" between the student and the institution (Hossler, 1984). These traditional retention models were based on traditional residential college students to validate their models, but there have been some models tested on commuter students (Bean

& Metzner, 1985). These models posit academic and social integration as important factors for explaining this complex set of interactions. Because these studies are of samples that were not overly diverse, there is some discussion as the applicability of these factors with students of color. However, two studies have found that academic and social integration can be applied to ethnically diverse campuses (Murguia, Padilla, & Pavel, 1991; Nora, 1987). Integration as a factor has been critiqued as expecting students to adapt to the culture of the campus (Tanaka, 2002), which has been translated as expecting minority students to enter and adapt to the dominant cultural frame (Tierney, 1992). While integration can be viewed differently among different types of students, some version of integration does consistently find its way into retention models.

Institutional commitment has also been found to be an important factor in students' intent to persist. Several studies have found this factor as an important variable in the retention of students (Cabrera, Nora, Terenzini, Pascarella, & Hagedorn, 1999; Tinto, 1993; Torres, 2006). In most of these studies, institutional commitment is defined by items focused on measuring the students' commitment to the institution, the educational experience, and getting a degree from that institution. Increased levels of institutional commitment tend to represent students with a greater intent to persist.

## RESEARCH DESIGN

Findings presented in this article derived from the quantitative data of a longitudinal, mixed-methods study that examined the college experience for Latinos across the United States. The research design for this particular investigation, as described in the following, considers the influence of mentoring and advising for Latino college student experience. The resulting analysis sought to consider if having an identified advisor/mentor made a difference in mean scores of the scales found to be important in understanding the intent to stay in college as defined by Nora et al. (1997) and Torres (2006). This section will present the sample of participants in the first year and the number of students interviewed from this original sample as well as the number of students that continued to participate in the longitudinal study, the context to how the study emerged over time, and the reliability and validity of the quantitative data are presented.

### Methodology

This study was conceived using a paradigmatic lens that allows the research question and design to be contextually responsive and practical (Greene & Caracelli, 2003). This research lens is appropriate because the initial idea to include an item about an identified advisor/mentor into the Latino College Student Experience Survey emerged from qualitative interviews done in the first year (Spring 2003). During these interviews several students discussed their mentors and advisors as being helpful in navigating their way through college. In response

to this emerging factor, it was determined that further investigation regarding the mentoring and advising relationship was needed and an item was added to determine advisor/mentor status. The item was: Do you have a mentor/advisor that helps you with your college choices or encourages you to continue your education? The item was created with intent to have a broad definition of advising/mentoring and to consider the support and help needed to promote success in college. This success in continuing college education was seen as consistent with the definitions of mentors helping mentees understand organizational customs or resources (Evanoski, 1988) as well as with the definition of developmental advising helping students accomplish life goals (Winston et al., 1984). The response for the item was dichotomous, yes or no, and allowed for the differentiation of two distinct groups—students who identified a mentor/advisor and students who did not identify a mentor/advisor. This item was included in subsequent surveys administered in 2005 and 2006 in case the student had identified a mentor and, thus, his/her grouping would change. The analyses were done for the surveys administered in their second, third, and fourth year of college. The mean scores from each of the Nora et al. (1997) scales were used to compare students with an identified an advisor/mentor and those who had not.

### Sample

The data for this longitudinal study were collected each spring between 2003 and 2006. Of the three institutions included, two of the institutions are Hispanic Serving Institutions (HSIs): one was over 90% Latino/a student enrollment and the other had 28% Latino/a student enrollment. The third institution was a predominantly White institution with Latino/a students representing approximately 4% of the student population. The sampling procedures used in this study included asking self-identified Latino/a first time in college students at the participating urban, predominantly commuter, universities to take part in the survey. In the spring of 2003, 1474 students were surveyed using a pencil and paper instrument that consisted of demographic variables and scales previously used by Nora et al. (1997). The response rate for the first year was 36.1% ( $n = 541$ ) and approximately 6.3% (34) of the students that responded to the survey were interviewed within their own university environment. While this study uses only the quantitative data, the issues regarding having a mentor or advisor emerged from the qualitative interviews and an item was added to the survey in the second year. The data used for this study considers the sample from the second to the fourth year of the longitudinal data. Of the 541 original participants, 339 students remained in the study for the second year, 227 remained in the third year, and the final year had 171 participants.

The original sample of students who responded to the survey included more females (64%) and a mean age of 20.73 ( $SD = 5.8$ ). The majority of the students were born in the United States, with parents who are immigrants (labeled as



second generation in the United States—59%), while only 18.4% (100) were foreign born. The remaining students were third generation or beyond in the United States. Approximately 77% of the students are first generation college students and the majority claim Mexico as their country of origin, followed by Puerto Rico, Cuba, El Salvador, and other countries. The majority of students live with their parents (74.4%) and an additional 19.7% live in their own home. It is difficult to determine if this sample is representative of the overall sample at these institutions because institutions only collect data on ethnicity and not other demographic characteristics. This sample does reflect characteristics of the broader Latino/a population in higher education because the largest percentages of students are from Mexican origins (Guzman, 2000; Therrien & Ramirez, 2000) and the largest percentage of Latino undergraduates are women (American Council on Education, 2005).

### **Reliability and Validity of Quantitative Data**

The scales used in the survey were previously validated scales by Nora, Kraemer, and Itzen (1997) using Latino college students and again utilized with Latino urban university students by Torres (2006) who conducted confirmatory factor analysis on the scales. These scales were seen as appropriate for this population because the items were previously used with a commuter Latino/a student population at a community college and were viewed as culturally sensitive to the issues of Latino/a commuter students. These scales were found to have strong reliability estimates: Family Responsibilities ( $\alpha = .82$ ), which considered the level of tension between family obligations and academic endeavors; Encouragement ( $\alpha = .78$ ), which considered the level of support the student has to pursue education; Cultural Affinity ( $\alpha = .77$ ), which considered the presence of Latino professionals and culture within the university environment; Satisfaction with Faculty ( $\alpha = .72$ ), is somewhat self-explanatory; Academic Difficulty ( $\alpha = .68$ ), focuses on an aspect that may be difficult for students; Academic Integration ( $\alpha = .69$ ), consisted of behaviors associated with academic success; and Institutional Commitment ( $\alpha = .89$ ), which consisted of items that illustrate the student feels they are in the right place and have goals to succeed at that institution. Respondents were asked to respond to each item using a 1 to 5 scale with the range defined as follows: 1 = strong disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = Agree; and 5 = strongly agree. The scale score was determined by adding the responses for each item within the scale. Table 1 provides a list of the items within each scale.

## **RESULTS**

To consider the differences between students who had identified an advisor/mentor and those who did not, *t*-tests were conducted on each of the scales that were used in the Torres (2006) retention model. In the first year all scales were



Table 1. Scale Items with Cronbach Alphas and Confirmatory Analysis Factor Loadings

Scale and items	Cronbach alpha (Nora et al., 1997)	Factor loading (Torres, 2006)
Family Responsibility	.82	
Caring for family members has made it difficult for me to study		.50
Housework has made it difficult for me to study		.41
Family pressures have made it difficult for me to study.		.81
Family problems have made it difficult for me to study.		.74
Encouragement	.78	
Family members have encouraged and supported me in my decision to study		.31
Friends have encouraged and supported me in my decision to study		.57
Fellow students have encouraged and supported me in my decision to study.		.62
Teachers have encouraged and supported me in my decision to study.		.58
Advisors have encouraged and supported me in my decision to study.		.43
Cultural Affinity	.77	
Latino faculty and staff help me to feel at home at this college.		.62
Other Latino students help me to feel at home at this college.		.79
Latino cultural activities help me to feel at home at this college.		.64
Satisfaction with Faculty	.72	
I believe the instructors are well prepared for their jobs.		.47
I have good relationship with my instructors.		.47
I believe that I have learned how to study effectively.		.39
The instructions my teachers give me are clear.		.49
Academic Difficulty	.68	
I find classes at this institution to be more difficult than I expected.		.14
I have problems understanding what I read in English.		.43
The textbooks are too hard to read		.76
The teachers are very demanding.		.28
Institutional Commitment	.89	
I would recommend that my friends and relatives come to this college to study.		.45
This college is important in my life.		.57
I am certain this college is the right choice for me.		.86
I feel like I belong at this college.		.73
Academic Integration	.69	
How often do you use the library?		.11
How often do you use tutoring help?		.34
How often do you use a computer outside of class?		.005
How often do you meet with instructors outside of class?		.44
How often do you meet with your academic advisor?		.27

tested and in subsequent years only the scales that were statistically significant in the first year were tested for subsequent years in order to determine if these differences continued over time. The Levene statistic was reviewed to test the homogeneity of variances among the groups and there were no significant values at the .001 level, until the fourth year data and those scales are identified within the table for the reader.

### Students in their Second Year of College

As sophomores, 42% of the participants had identified an advisor or mentor. The analyses indicate that the group of students with an advisor/mentor seems to benefit with higher mean scores on several scales that have been shown to promote retention. From Table 2 it is evident that these students had statistically significant higher scores on five of the seven scales.

Table 2. Second Year in College Scale Means with *t*-Test

Factor	<i>n</i>	Mean ( <i>SD</i> )	<i>t</i> Statistic	Significance
Family Responsibility			-1.40	
Identified advisor/mentor	138	9.64 (4.5)		.162
Not identified advisor/mentor	194	10.32 (4.2)		
Satisfaction with Faculty			4.21	
Identified advisor/mentor	139	15.66 (2.4)		.000
Not identified advisor/mentor	192	14.54 (2.4)		
Cultural Affinity			3.2	
Identified advisor/mentor	139	11.34 (2.7)		.002
Not identified advisor/mentor	196	10.39 (2.7)		
Academic Difficulty			2.60	
Identified advisor/mentor	138	9.74 (2.9)		.108
Not identified advisor/mentor	191	9.24 (2.6)		
Academic Integration			4.39	
Identified advisor/mentor	131	16.53 (3.7)		.000
Not identified advisor/mentor	184	14.72 (3.6)		
Institutional Commitment			4.58	
Identified advisor/mentor	140	16.59 (2.8)		.000
Not identified advisor/mentor	196	15.15 (2.8)		
Encouragement			4.51	
Identified advisor/mentor	140	21.52 (3.1)		.000
Not identified advisor/mentor	194	19.75 (3.9)		

**Note:** The number of students differs for the scales because SPSS was used to compute the analysis and this computer program does not count a case if there is missing data.

Two scales did not have sufficient variance between the groups to have statistically significant differences. These two scales do not seem to be as connected to the influence of advisors/mentors as the others. For example, Family Responsibility is more likely linked to other student characteristics instead of a mentoring or advising relationship. And Academic Difficulty is more likely to be associated with academic deficiency rather than the type of relationship of interest in this study.

The results where the  $t$  statistic indicates a significant difference among the students indicate that students with an identified advisor/mentor had higher levels of Satisfaction with Faculty ( $t = 4.21$ ,  $df\ 329$ ,  $\alpha = .000$ ). They also had higher levels of Cultural Affinity ( $t = 3.19$ ,  $df\ 333$ ,  $\alpha = .002$ ), Academic Integration ( $F = 19.21$ ,  $df\ 1$ ,  $\alpha = .000$ ), Institutional Commitment ( $t = 4.38$ ,  $df\ 313$ ,  $\alpha = .000$ ), and Encouragement ( $t = 4.51$ ,  $df\ 332$ ,  $\alpha = .000$ ). Of particular interest are the scales that were found that have strong direct and indirect effects on the intent to persist model of Torres (2006) and other researchers. These results would indicate that having an identified advisor/mentor could make a difference in Cultural Affinity, Encouragement, and Institutional Commitment. These factors formulate a path with a strong total effect on the intent to persist in the first year.

In the second year, it was found that there was a significant difference in students' response regarding their intent to persist at the institution. While intent to persist is a proxy for retention, Bean (1980, 1983) found support for the relationship between intent and actual persistence. Using a single item with a 5-point scale (strongly agree to strongly disagree) to measure students' intent to persist at the institution, it was found that students with a mentor/advisor had a higher mean score ( $m = 4.38$ ) than those without an mentor/advisor ( $m = 4.04$ ). This difference was found to be statistically significant ( $t = 3.28$ ,  $df\ 329$ ,  $\alpha = .001$ ). This finding indicates that students with a mentor/advisor more strongly agreed that they would continue enrolling at the institution in subsequent semesters.

### Students in the Third Year of College

In the third year of college 54% of the continuing students had identified an advisor/mentor as compared to 42% in the previous year. The scales previously found to be significant in the first year continue to have statistically significant difference between students with an identified advisor/mentor and those without. In addition, in the third year of college Family Responsibility was found to have a statistically significant difference ( $t = -2.39$ ,  $df\ 224$ ,  $\alpha = .018$ ). In this situation, students' negative effect resulted from students without identified mentors/advisor had higher levels of Family Responsibility than those with mentors. A higher level of family responsibilities is assumed to take away from the focus on being a college student. Students with an identified advisor/mentor continue to have higher mean scores on Satisfaction with Faculty ( $t = 4.13$ ,  $df\ 223$ ,  $\alpha = .000$ ), Cultural Affinity ( $t = 3.01$ ,  $df\ 223$ ,  $\alpha = .003$ ), Academic Integration

( $t = 4.76$ ,  $df 224$ ,  $\alpha = .000$ ), Encouragement ( $t = 4.27$ ,  $df 224$ ,  $\alpha = .000$ ), and, even though the significant level was not as high, Institutional Commitment continued to have a .05 significance ( $t = 2.35$ ,  $df 223$ ,  $\alpha = .02$ ) (see Table 3).

Contrary to the second year of college, there was no significant difference on third year students' intent to persist ( $t = 1.02$ ,  $df 224$ ,  $\alpha = .309$ ). This non-significance could indicate that other factors could be coming into play at this point. Issues like an institution not offering a major or decision to transfer to a different institution. Because most of these students were commuters living at home, this could be a possibility.

### Students in the Fourth Year of College

The final year of this longitudinal study found 52% of the continuing participants having identified an advisory/mentor. Once again the scales were found to have significant differences in the first and second years between students who had identified an advisor and those that had not identified one, had statistically

Table 3. Third Year in College Scale Means with *t*-Test for Those Previously Found to be Significant

Factor	<i>n</i>	Mean ( <i>SD</i> )	<i>t</i> Statistic	Significance
Family Responsibility			-2.39	.018
Identified advisor/mentor	121	8.90 (4.5)		
Not identified advisor/mentor	105	10.33 (4.5)		
Satisfaction with Faculty			4.13	.000
Identified advisor/mentor	121	16.0 (2.8)		
Not identified advisor/mentor	104	14.5 (2.7)		
Cultural Affinity			3.01	.003
Identified advisor/mentor	121	11.3 (2.5)		
Not identified advisor/mentor	104	10.2 (2.6)		
Academic Integration			4.76	.000
Identified advisor/mentor	121	12.1 (2.8)		
Not identified advisor/mentor	105	10.3 (2.7)		
Institutional Commitment			2.35	.020
Identified advisor/mentor	121	16.6 (3.1)		
Not identified advisor/mentor	104	15.7 (3.0)		
Encouragement			4.27	.000
Identified advisor/mentor	121	21.5 (3.5)		
Not identified advisor/mentor	105	19.5 (3.4)		

**Note:** The number of students differs for the scales because SPSS was used to compute the analysis and this computer program does not count a case if there is missing data.

significant differences in the third year. Like the previous two years, students who identified an advisor/mentor have higher mean scores of these five scales than students who do not identify an advisor/mentor in third year. The measured differences are as follows: Satisfaction with Faculty ( $t = 4.57, df\ 163, \alpha = .000$ ); Cultural Affinity ( $t = 3.96, df\ 165, \alpha = .000$ ); Academic Integration ( $t = 4.68, df\ 163, \alpha = .000$ ); Institutional Commitment ( $t = 3.68, df\ 163, \alpha = .000$ ); and Encouragement ( $t = 5.21, df\ 165, \alpha = .000$ ).

As expected, many students should be completing their studies in the fourth year, therefore the intent to persist analysis was not significant in the fourth year ( $t = 1.63, df\ 167, \alpha = .105$ ). What is of interest is that the consistent trend of mean differences in scales that have been previously found to be important in the retention of students can provide some insight into the benefits of advisors and mentors for Latino/a college students at urban universities.

Table 4. Fourth Year in College Scale Means with *t*-Test for Those Previously Found to be Significant

Factor	<i>n</i>	Mean ( <i>SD</i> )	<i>t</i> Statistic	Significance
Family Responsibility			-1.58	.115
Identified advisor/mentor	81	9.5 (4.5)		
Not identified advisor/mentor	87	10.6 (4.5)		
Satisfaction with Faculty			4.57	.000
Identified advisor/mentor	80	16.4 (2.4)		
Not identified advisor/mentor	85	14.6 (2.5)		
Cultural Affinity			3.96	.000
Identified advisor/mentor	80	11.4 (2.5)		
Not identified advisor/mentor	87	9.8 (2.7)		
Academic Integration*			4.67	.000
Identified advisor/mentor	79	12.6 (3.2)		
Not identified advisor/mentor	86	10.5 (2.6)		
Institutional Commitment			3.68	.000
Identified advisor/mentor	79	17.1 (3.2)		
Not identified advisor/mentor	86	15.4 (2.9)		
Encouragement**			5.21	.000
Identified advisor/mentor	80	21.7 (2.9)		
Not identified advisor/mentor	87	18.8 (4.2)		

\*In the fourth year the Levene's test of equality of variance was significant at the .05 level. This would indicate that the unequal variance statistic should be considered and the 4.64 continued to be significant at the .000 level.

\*\*In the fourth year the Levene's test of equality of variance was significant at the .01 level. This would indicate that the unequal variance statistic should be considered and the 5.29 continued to be significant at the .000 level.

## DISCUSSION

The results of this study indicate that having an advisor/mentor that can help Latino students navigate the college environment will make a difference within constructs that were found to influence the intent to persist. Because Institutional Commitment has consistently been linked to persistence (Cabrera et al., 1999; Torres, 2006) it is of particular importance to see that this factor is consistently higher for students with an advisor/mentor across all three years of their attendance. While it is difficult to say what will make a difference in building institutional commitment, this study seems to indicate that an identified advisor/mentor may be one of the interventions that could make a difference. For many urban universities, advising practices tend to be non-intrusive (not mandatory) and advisors are not assigned until the major is declared. This results in institutions not creating intentional opportunities for students to create a relationship with an advisor or mentor.

The findings in this study also provide insight into the success of academic support programs for at-risk students. Many of those programs focus on first-generation college students who tend to experience a “disadvantage for access” (Choy, 2001, p. 22). First-generation students are twice as likely to stop-out after their first year of college. The ones that persist for three years continue to be behind and are less likely to stay on track to a bachelor’s degree (Choy, 2001). These students tend to see their previous academic performance in light of the stereotype imposed on them as low achiever and as a result low expectations placed on them by high school teachers (Tierney, 2000). The consistent finding that mean scores for Encouragement and Academic Integration perhaps illustrate that mentoring/advising can help students’ socialization into higher education institutions by providing them with greater levels of support and knowledge about the behaviors that will lead to academic success.

In a study of indicators of college success, first-generation students were also less engaged and “less likely to successfully integrate diverse college experiences” (Pike & Kuh, 2005, p. 289) and “the college environment as less supportive” (p. 289). The disadvantages described by Pike and Kuh (2005) were associated with educational aspirations and where students lived while in college, which was not the case for this sample of students. This literature advocates for supportive environments where the student feels encouragement and cultural affinity. One of the ways to engage students is through faculty interaction. While this scale is not a direct measure of interaction, it is worth noting that Satisfaction with Faculty was consistently higher for students with an identified mentor/advisor. The results also illustrate increased levels of Cultural Affinity and Encouragement which would indicate that students with an identified advisor/mentor consistently have higher mean scores in areas that were found to have strong indirect effects of the intent to persist.

## LIMITATIONS

Considering the intent to persist within this study has some limitations. The intent to persist was asked about the institution they were presently attending in an effort to measure retention. This item would not consider persistence at another institution. This could be the reason for the mixed results in the analysis whether having a mentor/advisor made significant difference in their intent to persist in the third year. This mixed result would need further investigation.

Other limitations to consider are the sample size, the information collected, and the lack of institutionally provided data to complement this study. Institutional data indicating actual persistence would enhance the proxy of intent to persist used in this study. The sample for this study could not be determined as being representative of the Latino/a student population at these institutions, therefore this may also serve as a limitation. A final limitation to consider is whether one item can capture all aspects of developmental advising as described in the literature. Additional institutional data would open avenues for future research to consider the relationship between these scales and academic achievement measures as well as doing these analyses with larger more diverse samples.

While causal relationships are difficult to make, this study indicates that an identified advisor/mentor can make a difference when it comes to factors that contribute to students' intent to persist at an institution. Perhaps what can help is to learn from successful mentoring programs as a way to considering best practices in higher education.

### **Exemplary College Mentoring Programs for Latinos**

As a way to help apply this research to practice, the following examples of programs are provided. The students in the studies reviewed (Bordes & Arredondo, 2005; Zalaquett & Lopez, 2006) indicate the positive outcomes that can be achieved from informal mentoring relationships. Informal mentoring was considered in these studies as relationships that developed spontaneously with no structured program to intentionally pair protégés with mentors. Considering the success of these informal mentoring relationships, formal mentoring programs have been developed to provide the benefits of mentoring to students of color in an institutional effort to increase their persistence rates and academic success. One such program that links faculty with Latino college students is the Faculty Mentoring Program (FMP) at California State University, Dominguez Hills. Another program is the Puente Project.

#### **Faculty Mentoring Program**

FMP began in 1987 to address the needs of at-risk students who were identified as members of a minority group and/or were non-traditional. All students who met



the criteria to be part of the program were invited to participate. Those students who showed interest in the program were matched with mentors who were selected from faculty who expressed an interest in being a mentor. This program does not exclusively serve Latino students, however they are a large proportion of the students served by this program (Santos & Reigadas, 2002) as they are the largest ethnic group enrolled at Cal State Dominguez Hill, comprising approximately 40% of the undergraduate student population (CSUDH Institutional Research, Assessment and Planning, 2007).

In a study by Santos and Reigadas (2002), the purpose was to understand the extent to which the FMP facilitated the academic and social integration of Latino college students. A survey was administered to participants that asked for respondents to reflect on their participation in FMP. From the 65 respondents, 32 (49%) identified as Latino, which was the focus for this analysis. The majority of the Latino respondents were female (75%), born in the United States (90.6%), and the first in their families to attend college (71.9%). Approximately half of the mentees had been involved in FMP for at least 1 year (46.9%) at the time of the study. Participants were administered a survey designed to assess their perceived adjustment to college and their perception of faculty mentors and the program itself by reflecting on their college experience before and after entering the FMP program.

From their analysis, Santos and Reigadas (2002) found that these students reported clearer academic goals and a greater sense of self-efficacy in their ability to succeed in college as a result of their involvement in the program. Also, it was found that greater frequency of contact between students and mentors significantly affected these outcomes as increased contact between mentors and protégés was associated with higher levels of self-efficacy to be successful in college, clearer academic goals, and a higher level of concern to perform well and meet their academic obligations. These clear goals can be part of the institutional commitment needed to succeed and higher levels of self-efficacy could contribute to aspects of academic integration, where academic behaviors that help student succeed are critical.

Furthermore, Santos and Reigadas (2002) considered the significance that race/ethnicity may have on the mentoring relationship. A large number (43.8%) of the Latino students were paired with a Latino mentor. This would be one technique to assuring cultural affinity within the institution. In comparing participants who had Latino mentors to participants who had non-Latino mentors, they found that students who had Latino mentors perceived their mentors to be more helpful, they perceived themselves to be more self-efficacious, and they also reported greater levels of satisfaction with FMP. These findings contrast with results from Bordes and Arredondo (2005) who found no difference in mentoring outcomes between Latino students who were matched with Latino mentors and students who had non-Latino mentors.

### **The Puente Project**

Another exemplary formal mentoring program is the Puente Project. Puente was developed to address the low rate of academic achievement among Latino students at Chabot College, a community college in northern California. Felix Galaviz and Pat McGrath, the founders of the Puente Project, reviewed over 2,000 student transcripts. They discovered three key patterns among Latino students: students were not enrolling in college-level writing courses; were avoiding academic counseling; and were the first in their families to attend college. As a result, they developed a 3-pronged program aimed to socialize Latino students to college that combined curriculum, academic counseling, and mentoring by professionals in the community while using their Latino culture as a foundation and framework for their learning experiences. The curricular component is a year-long freshmen writing program that requires students to do written and oral exercises based on Latino and other ethnic literature and their own cultural experiences. The academic advising component is met by having counselors in students' English classrooms. The counselor and the English instructor work collaboratively in the writing program. The mentors are Latino professionals from the community who invite their protégés to their work sites, engage in the campus with their student by attending events together and serving as guest speakers or participants in the classroom, and interacting with their student on a personal level (Laden, 1999).

The development of a program that links mentoring, curriculum, and academic advising together has yielded significant results that demonstrate the effectiveness of this holistic approach based on Latino culture. In reviewing the results that the Puente Project has had in reducing drop-out rates, "a record high 97% retention rate for Puente students offers a remarkable record in itself of why the program has survived for so long" (Laden, 1999, p. 69). At least 48% of students who complete the Puente program transfer within 3 years to a 4-year institution, which is far greater than the percentage for non-Puente students (less than 7%). In regards to transferring to a highly selective University of California campus, 19% of all Latinos transfers are Puente students (The Puente Project, 1998 as cited in Laden, 1999, p. 68). Since its inception in 1981, the program has expanded to 59 community colleges and 33 high schools throughout California (About Puente, n.d.). It is now co-sponsored by the University of California Office of the President and the California Community College Chancellor's Office.

In summary, Latino students face challenges in navigating college from their lack of knowledge about campus culture and how to seek out information. A mentor/advisor may help them work their way through the campus environment by being a source of information in how to seek out resources and teaching them skills needed to be able to utilize these resources. They may also be a support in

helping them develop a sense of belonging that is critical in increasing their desire to stay in school (Tinto, 1993) by making them feel welcome and being a source of encouragement (Zalaquett & Lopez, 2006). Research in mentoring has also demonstrated that mentoring also helps students feel a greater sense of self-efficacy with regard to their academic abilities and develop more clearly defined academic goals (Santos & Reigadas, 2004). Institutions of higher education have seen the benefits of mentoring and as a result, have developed formal mentoring programs for high-risk students. The Faculty Mentoring Program and the Puente Project are two such programs that serve a large number of Latino students and have made great inroads in increasing students' belief in their ability to be academically successful (Santos & Reigadas, 2004) as well as increasing retention rates and transfer to 4-year institutions (Laden, 1999).

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Direct reprint requests to:

Vasti Torres, Ph.D.  
Associate Professor  
Indiana University  
201 No. Rose Ave.  
Bloomington, IN 47405  
e-mail: vatorres@indiana.edu