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ABSTRACT

A study was done to determine whether there were notable differences in the characteristics of Hispanic American students who completed the baccalaureate degree at the University of Oklahoma and Oklahoma State University as compared to Hispanic American students who enrolled but did not complete the baccalaureate degree. The study examined demographic factors: academic, financial, personal, and familial circumstances; social and performance factors: social and academic integration, high school achievement record, ACT scores, and overall college grade piont average; and bicultural orientation. The study population consisted of 95 Hispanic American male and female students (49 persisters and 46 non-persisters) who completed a mail survey questionnaire. Study results indicated that the Hispanic American persisters' success resulted from prior attributes, brought with them to college, as well as from their almost equal involvement in the academic and social systems, both formal and informal, as they pursued the Bachelor's degree. Thus, students who were competent members of the social and the academic communities tended to persist. Hispanic American non-persisters were less likely to be involved in the informal social and academic domains. Included are 11 tables, 1 figure, and 50 references. (JB)

PERSISTING HISPANIC AMERICAN COLLEGE STUDENTS: CHARACTERISTICS THAT LEAD TO BACCALAUREATE DEGREE COMPLETION

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The phenomenon of student attrition and retention in American Higher Education has been given substantial attention in the empirical literature (e.g., Astin, 1975, 1982; Iffert, 1957; McNeely, 1937; Pantages & Creedon, 1978; Pascarella & Terenzini, 1980; Summerskill, 1962; Tinto, 1975, 1987). As Mayhew (1980) noted, "during most of the twentieth century, attrition rates in United States colleges and universities have remained at a stable 50 percent of any entering freshman class" (p. 92).

This general attrition literature has suggested that many interrelated factors have contributed either to persistence and/or nonpersistence. Positive parental encouragement and that of significant others, the student's own expectations of self, pre-post-highschool educational aspirations and career goals, residency on campus, frequent informal contacts with faculty members, and institutional commitment have been cited as the main lnfluencers of student persistence.

A variety of sociopsychological factors, the "fit" between the student and the university in the context of the academic, as well as the social environments, in both the formal and informal domains, and individual background characteristics such as prior college experiences, the impact of social and familial presses, in particular, on women students, and the high school achievement record and/or scholastic aptitude have also been cited in the literature as leading to the student's success or failure in the pursuit of the baccalaureate degree.

However, few specific factors signal voluntary attrition, as evidence concerning personal-social adjustment, the impact of parental socioeconomic status indices in relationship to the student's motivation and ability, selection of major, financial resources, per se, and the cost/benefit ratio that interplays between the pull of external forces and the push and/or commitment to complete the undergraduate program have remained inconclusive.

U.S. Hispanics in American Higher Education

Weinberg (1977) has suggested that "higher education has not been for Chicanos a vital experience leading to widespread involvement on all levels. Nor has it been a means of greater collective self-knowledge through sustained scholarship" (p. 21).

Recent National Center for Educational Statistics (NCES) data reported total enrollment percentages by type of institution (two-year and four-year) and by race and ethnicity that showed in 1986, Hispanics made up 5.0 percent of the total higher education enrollments and 2.2 percent of the entire enrollments in four-year institutions (Digest of Education Statistics, 1988, U.S. Department of Education, Office of Research and Improvement, CS 88-600, Table 146, p. 170).

In general, the literature has shown that U.S. Hispanics students are underrepresented in public and private universities, and in private four-year colleges. They are overrepresented in the lower tier of the postsecondary hierarchy in two-year institutions i.e., community and junior colleges (Magallan, 1983, Taylor, 1983). According to the National Center on Educational Statistics, in 1988, approximately 7.9% of all students enrolled in two-year colleges were Hispanic as just were 3.6% of those enrolled in four-year institutions (Hispanic education: A statistical portrait 1990 Washington, D.C.: Policy Analysis Center, National Council of La Raza, October, 1990, p. 82).

Of all degrees awarded to Hispanics 40.5 percent are Associate Degrees (Taylor, 1983, p. 12) and in 1987, Hispanics were awarded 2.7% of all bachelor's degrees in comparison to 86.9% awarded to White, non-Hispanics (Minorities in Higher Education, Eighth Annual Status Report, 1989, American Council on Education).

It has been difficult to extrapolate hypotheses and generalizations on the barriers that contribute to the lower numbers of U.S. Hispanics in institutions of higher learning and the factors that influence U.S. Hispanic students' persistence or withdrawal as attrition research in postsecondary education often has lumped U.S. Hispanic students together with other U.S. minority groups. Conjointly, the limited empirical research on Hispanics' higher education attainment is hard to classify, is sprinkled throughout diverse institutions, and is poorly organized for examination.

In addition, few studies have been conducted to identify variables that are uniquely associated with the academic achievement and attainment of U.S. Hispanic American university students, and fewer have separated out gender and ethnicity as variables. As Cope and Hannah (1975) and Pantages and Creedom (1978) pointed out, general attrition studies are related to academic achievement and use easily collected demographic data mostly limited to single variables. As Tinto (1987) reported, "high school grades account for about 12 percent of the variance in staying or leaving. Eighty-eight percent of the variance is left unaccounted for" (p. 51).

Furthermore, the scholarly research that concentrates on the prediction of U.S. Hispanic students' college grades from high school grades and from scores on standardized admission tests are dissimilar (i.e., in methodology, selected variables, population) and/or are often inconclusive in results (e.g., Astin, 1982--high school grades alone best predict college grades; Cole & Hanson, 1973--the ACT composite score is a better predictor of college grades; Duran, 1983--neither high school grades nor admissions test scores predict Hispanic American college GPAs as well as they do white non-Hispanic college GPAs; Goldman & Hewitt, 1976--college grades are best predicted combining high school grades and SAT scores; Goldman & Richards, 1974--SAT with a separate regression equation for Mexican American students is a better predictor of college grades).

In interpreting the small amount of research on the educational attainment of Hispanics in U.S. higher education, the literature has indicated numerous complexities. For example, the exclusion of nontraditional background factors (e.g., cultural and linguistic background, historical and regional differences of Hispanic subgroups, generational status/length of U.S. residency, prior college schooling) and confusion in the generalizability of existing data due to the use of different operational definitions and categories for identifying Hispanic American students by national educational agencies.

Braun (1983) also observed that in the general attrition research, few studies "... move beyond the freshmen year or involve multiple institutions or systems of institutions" (p. 132).

Flores (1989), in her review of the literature, identified several variables pertaining to the staying and leaving behaviors of Hispanic American college students. Factors leading to outcomes of <u>persistence</u> for Hispanic American students in four-year institutions from national or multiple institutional studies include as outlined (pp. 144-145):

Retention of the Spanish language (Long & Padilla, 1979; Garcia, 1981)
Mother's educational level (Astin and Burciaga, 1981)
Initial intentions and expectations (Astin & Burciaga, 1981)
High grades, good writing and verbal skills, success in mathematics, and enrollment in college preparatory courses in high school (Astin, 1982; Astin & Burciaga, 1981).
Grants (Astin, 1982, Astin & Burciaga, 1981)
Work-study on campus (Astin, 1982)
Living on campus (Astin, 1982)
Choosing majors in business administration, social sciences, and education (Astin & Burciaga, 1981; Schlef et al, 1983; Thomas, 1986)

Factors leading to outcomes of persistence for Hispanic American students in four-year institutions from single institutional studies include as outlined (p. 145):

Bilingual home environment (Long & Padilla 1971: Garcia, 1981)
Mother's encouragement for educational endeavors through high school graduation, associated with high college GPA (Vasquez, 1978; Simonello, 1981)
Mother's educational level (Campa, 1980)
Bicultural orientation (Ramirez, Castaneda & Cox, 1977; Gandara, 1980;1982)
Higher integration on campus among students, faculty, and staff (Vasquez, 1978, 1982; Minatoya & Sedlacek, 1983).

Factors leading to outcomes of nonpersistence for Hispanic American students in four-year institutions from single, multiple or national institutional studies include as listed (p. 145):

Lower high school achievement records than their peer counterparts (Nielson & Fernandez, 1979)
Poor secondary school preparation (Astin, 1982; Kent, 1982)
Lack of enrollment in college preparatory courses (Astin, 1982)
Initial enrollment in two-year colleges (Astin, 1982; Taylor, 1983)
Lower parental SES status indices (Kent, 1982)
Dissatisfaction in living on campus (Astin 1982: Kent, 1982)
Anxiety over lack of finances to pay for college (Brown, Rosen, Hill, and Olivas, 1980; Garcia-Bahne, 1978, Vasquez, 1978)
Scholarships associated more with attrition than persistence (Vasquez, 1978)
Family presses, in particular for Hispanic women who receive in some instances conflicting social messages (Chacon, 1982)
Little informal contact with university faculty (Vasquez, 1982)

The Oklahoma State Regent's report, "A Study of Hispanics in the Oklahoma State System of Higher Education," (November, 1983) found that individual institutions have few Hispanics in their "pipeline" to a professional degree and cannot maintain current levels of degrees granted unless an infusion of students occurs (p. 23). In their recommendations, the Regents suggested that there..."should be enhanced college recruitment activities, especially at the comprehensive universities, in order to assist the linear movement of Hispanic students" (p. 29). Moreover, both The University of Oklahoma and Oklahoma State University, the two comprehensive universities, reported high attrition rates of 60% to 65% for Hispanic American student enrollees.

This study explores the characteristics that differentiate and influence the Hispanic American student persisters and those who did not persist to the completion of the baccalaureate degree. It was designed to identify and examine, within the constructs of Tinto's (1987) theoretical model of college student

attrition, characteristics relevant to the persistence and nonpersistence of three Fall freshmen Hispanic American cohorts (1981-1983) pursuing baccalaureate degrees through the Fall of 1987 at the University of Oklahoma and Oklahoma State University.

Tinto (1975, 1987) has attempted to bring some coherence to the research on the multidimensional persistence/withdrawal process by providing a conceptual framework to guide future inquiry. Tinto theorizes that students' prior-college traits lead to varying initial levels of goal and institutional commitments. These commitments, in turn, interact with the academic and social environment of the institution, resulting in varying levels of integration in the institution's academic and social systems. Other things being equal, the higher the degree of integration of the individual into the college system, the greater will be his/her commitment to the specific institution and to the goal of college completion.

Accordingly, this study examined the statement of the problem: Are there notable differences in the characteristics of Hispanic American students who completed the baccalaureate degree at the University of Oklahoma and Oklahoma State University (persisters) as compared to Hispanic American students who enrolled but did not complete the baccalaureate degree (nonpersisters) at the University of Oklahoma and Oklahoma State University?

From the problem statement five null hypotheses were studied to determine if there were no significant differences between Hispanic American student persisters and Hispanic American student nonpersisters on the basis of: (1) selected demographic variables; (2) importance ratings of academic, financial, personal and familial circumstances; (3) importance ratings of social integration and academic integration, i.e., peer group interaction, interactions with faculty, concern for student development and teaching, academic and intellectual development or institutional commitment and goals; (4) high school achievement record, ACT scores, and overall college grade point average; and (5) importance ratings of bicultural orientation, i.e.,frequency of intra-inter-ethnic functioning.

Methodology

Data Collection and Population

Of the 49 persisting students surveyed, 49 or 100 percent responded. Of the 80 nonpersisters surveyed, 46 or 58 percent responded and constituted a 79 percent combined return rate. Thus ninety-five Hispanic American male and female students (49 persisters and 46 non-persisters) from a total population of 129 (from three Fall freshmen Hispanic American cohorts--1981-1983--

from the University of Oklahoma and Oklahoma State University), completed an ex post facto mail survey questionnaire. To obtain an adequate number of responses, several follow-up procedures were used.

The Instrument

The mail survey questionnaire addressed: (1) 34 demographic characteristics (including an adaptation of the parental encouragement scale, Vasquez, 1978; an acculturation scale suggested by Vigil, 1979); (2) perceptions of academic, personal, familial, and financial circumstances (a 42-item Likert-type scale); (3) perceptions of social and academic integration (a 32-item Likert-type scale, Pascarella & Terenzini (1980); (4) ACT composite scores and college GPA; and (5) perceptions of bicultural identity (e.g., early childhood cultural contact and current social group preference), a revised 40-item form BIRI, a Likert-type scale, (Gonzalez, 1978) of a Life History Biculturalism Inventory (Ramirez, Castaneda, & Cox, 1977); and other items constructed by the researcher.

Analysis

The SAS (1985) statistical package was used to analyze the research data. Results of the descriptive data from chi-square analyses tested at the .05 level of significance, show variables of significant differences, charted in the graph on INTEGRATED FINDINGS; FLORES' STUDY VARIABLES UNDER MAJOR CONSTRUCTS OF THE TINTO (1987) MODEL OF INSTITUTIONAL DEPARTURE (Figure 1).

T-tests were computed to compare the differences between the means of persisting and nonpersisting Hispanic American students on the two Biculturalism Inventory scales, both early life and recent life; the Academic, Personal/Familial and Financial/Employment adjustment scales, the five scales addressing Peer Group Interaction and Academic integration, ACT composite and subset scores, high school overall grade point averages, and overall college grade point averages (Table 1).

Results

Demographic Characteristics

There were no significant differences between male and female Hispanic American persisting and nonpersisting students. Most identified themselves as either Mexican American (persisters 53%; nonpersisters 43% or as Hispanic American (persisters 37%; nonpersisters 43%). None identified themselves as Chicano/Chicana and only 2% of the nonpersisters and none of the persisters identified themselves as Latino/Latina. Forty percent

of both groups were of second generational status and 20 percent of both groups were each of first and third generational status. Additionally, there were no significant differences between persisters and nonpersisters on size of hometown; on individuals that influenced attendance to college (although Mothers were close to significance); on individuals that influenced choice of college; nor on marital status (the majority were single in both groups).

Family Background. In descriptions of how their parents raised them up to the time they graduated from high school, a significantly greater number of persisters than nonpersisters reported that it was very true that their mothers wanted to know their progress on a regular basis (Table 2); that their fathers encouraged them to do well in school and urged them to do their best, respectively (Table 2). Although, Gandara (1980, p. 4) in her study on high achieving Mexican American females and males who possessed a J.D., M.D., or Ph.D., reported that "across sexes, degree categories, and SES levels, mothers were more supportive of education then were fathers and more instrumental in shaping their children's goals" (p. 4) and Vasquez (1978, p. 141) found that mother's encouragement best predicted college GPA for Chicanas at the University of Texas at Austin, for this study's Hispanic American students, continuous encouragement toward educational endeavors by both mothers and fathers, the more likely the Hispanic American students will persist.

Proportionately, but not statistically significant, on the "early life" of the Biculturalism Inventory scale, persisters and nonpersisters lived in neighborhoods that were mostly to entirely Anglo Americans and their parents also related well to their neighborhood friends, both children and adults. However, persisters tended to report, more than nonpersisters, that their parents very frequently encouraged pride of heritage (81% vs. 54%) and also encouraged them to be proud they are Americans (71% vs. 56%).

There were significant differences between nonpersisters (28%) who reported parental incomes under $20,000 and persisters (78% vs. 39% nonpersisters) who tended to report more parental incomes between $25,000-$30,000 and over $30,000 (Table 2). However, parental occupational and educational levels did not significantly differentiate persisters from nonpersisters. Most persisters reported both parents working outside the home. More fathers of persisters were skilled workers (31%) and more mothers of persisters were bank or office clerks, salespersons, or technicians (33%). More nonpersisters (22% vs. 15% persisters) reported mothers with college degrees. Catholicism was not as prevalent among nonpersisters (50%) as among persisters (61%).

Skills and Abilities. Highschool achievement records showed no significant difference between persisters and nonpersisters.

In both groups, over half the persisters (53%) and the nonpersisters (56%) earned "B" averages in the "2.74-3.25" range and 39% of the persisters and 31% of the nonpersisters earned "A" averages in the "3.24-4.00" range. Half of both groups were in the upper-fourth rank of their graduating class. In addition, there were little differences between the means of persisters and nonpersisters on the ACT composite scores (Table 1).

Persisters (45 percent) more than nonpersisters (20 percent), expected to obtain a Master's degree (Table 3). Fifty-six percent of the nonpersisters did not expect to go higher than a Bachelor's degree). Persisters more than nonpersisters perceived that it was "extremely important" to learn about different kinds of people and to enhance their interpersonal skills as an educational goal, a significant difference that suggests the influence of personalism as a central value to Hispanic American culture (Condon, 1985; Ruiz & Padilla, 1977; Simonello, 1981). Slightly more persisters than nonpersisters felt it was "extremely important" to gain knowledge and skills for a career. Both groups gave little priority to gaining a liberal arts education (Table 4).

A greater significant number of persisting students than did nonpersisting students self-reported higher proficiency in reading and writing Spanish (Table 3). Persisters were slightly more likely to report speaking Spanish fluently or moderately. Although the data shows no significant differences on self-reported languages spoken, persisters tended more to speak "both Spanish and English" with parents, personal friends, acquaintances and in the home community, while nonpersisters tended more to speak "only English" with these four groups. Nonpersisters were more likely to report that they did not understand Spanish. Both groups reported not speaking "Spanish only" with acquaintances and in the home community and only a tiny proportion of both groups spoke "Spanish only" with parents and other relatives. Laosa (1975, p. 617) suggested that "whereas language proficiency refers to what an individual can do, language use measures indicate what an individual typically does."

Prior-college Schooling. Of those attending Bilingual Education classes (K-12) prior to college, significantly more persisters (27%) attended Bilingual Education classes between the ninth through twelfth grades. However, over half of the students in both groups reported they never attended Bilingual Education classes K-12. There were no significant differences between persisters and nonpersisters on type of highschool attended either public or private. Statistically significant differences were reported by persisters more than nonpersisters who discussed personal problems and studied with mostly Anglo to entirely Anglo

students (Table 5, respectively) during the elementary and highschool years or "early life" of the Biculturalism Inventory scale. More nonpersisters than did persisters, however, reported establishing meaningful relationships with mostly to entirely Anglo students (Table 5).

College experiences

Approximate proportions of both groups lived in a college dorm during their Freshman year. A greater number of persisters lived in a college dorm during their Sophomore year (Table 6). Understandably, persisters outnumbered withdrawing nonpersisters who reported living in a sorority or fraternity their Junior and Senior years, respectively, or living in another private home, apartment, or room their Senior year. Contrary to the literature that shows that residency on campus enhances minority students' persistence (Astin, 1982; Astin & Burciaga, 1981), both the persisters and nonpersisters were predominately in college dorms in both the Freshmen and Sophomore Years. In smaller proportions, more persisters lived in college dorms than did nonpersisters from the Sophomore through the Senior years. Residency on campus, however, may have influenced a longer tenure for those nonpersisters who continued through the Sophomore year. By the Junior and Senior years, persisters, and those nonpersisters still enrolled, had moved to other private homes, apartments, or rooms. Few in either group lived at home with parents from the Freshmen to the Senior Years.

The Living Accommodations variable also provided information on the withdrawal behaviors of nonpersisters and the proportions remaining in each subsequent year as they pursued the Bachelor's degree. Results of this study show that by the Sophomore year, 74 percent (34) of the nonpersisters remained in school as 26 percent (12) had withdrawn. By the Junior Year, 52 percent (24) of the nonpersisters were still in school as 22 percent (10) had withdrawn--a total attrition rate of 48 percent. By the Senior year, 28 percent (13) of the nonpersisters were still in school as another 26 percent (12) had withdrawn--a total attrition rate of 74 percent.

Personal Adjustment. In personal adjustment presses, difficulties with time management were statistically significant. Persisters (35%) in a moderate degree and nonpersisters (24%) in a major degree, felt the need for a temporary break from their studies. Slightly more nonpersisters (35%) than persisters (23%) reported in moderate to major degrees, a conflict between job and studies (Table 7). On other factors of personal adjustment, there were no statistically significant differences between Hispanic American persisters and nonpersisters in their perceptions of personal and familial presses, nor for the most part, their perceptions of academic pressures and/or lack of skills, therein, nor in financial or employment pressures.

Although of no statistically significant differences, proportional clues showed 35 to 37 percent of the nonpersisters reporting that having inadequate finances to pay for tuition and books and living expenses and insufficient parental financial support, in moderate to major degrees, contributed to their decision to withdraw. Few in both groups reported having been advised of scholarships/grants available for Hispanics at OU/OSU or from local/national organizations). Moreover, of interest proportionately, not of statistical significant differences, nonpersisters reported that inability to concentrate (35%), being unsure of academic goals (46%), having poor motivation (40%) and getting tired of school (33%), in moderate to major degrees, affected their decision to withdraw. Conjointly, of no significant differences, nonpersisters (71%) contacted their parents nearly every day in comparison to persisters (59%).

Formal Academic Integration. There were no significant differences between both groups in the numbers of times their majors were changed as 30% of the persisters and 30% of the nonpersisters reported at least changing majors one time; nor in choice of majors (27% of each group choose Engineering and then Business and Management--persisters (26%) and nonpersisters (17%).

However, contrary to the literature (e.g., Astin 1982, Astin & Burciaga, 1981; Melgoza et al., 1980; Schlef et al, 1983; Thomas, 1986) that shows that Hispanic American students have consistently chosen Allied Health, Business, Education or Social Sciences as their major area of study, the data from this study reports little distinction about preference of majors between persisters and nonpersisters.

College overall grade point averages did, however show significant differences. A greater number of persisters, as compared to nonpersisters, reported their overall college grade point averages in the "3.25-4" range or in the "2.24-3.24". Highschool and college records including ACT scores were verified through the registrar offices at OU and OSU with consent forms signed by the Hispanic American students giving their permission to compare the file data with their self-reported data (Table 7).

Persisters tended to agree that their interest in ideas and intellectual matters had grown since entering college and they had greater satisfaction with their academic experiences. Persisters also tended to agree that they had teachers who were genuinely interested in teaching than did nonpersisters(Table 9).

Informal Faculty/Staff Academic Integration. Persisters as compared to nonpersisters agreed that non-classroom contact with faculty members influenced them positively in the areas of: (1) personal growth, values, and attitudes; (2) intellectual

development and growth in ideas; and (3) career goals and aspirations (Table 9). Nonpersisters either tended to disagree or had no opinion. Persisters (91%) who had more numerous informal contacts with faculty outside of class of more than ten minutes each per semester and who established a personal relationship with at least one faculty member tended to persist (Table 8). Nonpersisters reported little (53%) or no (39%) informal faculty contacts outside of class per semester.

Informal Social Integration. A statistically greater number of persisters agreed to strongly agreed that they had developed close personal relationships with other students since coming to college. Nonpersisters (22%) had no opinion. Persisters agreed to strongly agreed in statistically greater numbers than nonpersisters that their interpersonal relationships with other students had a positive influence on their personal growth, attitudes, and values, on their intellectual growth and interests, and in developing satisfying friendships, respectively. Nonpersisters (25%) had no opinion regarding their development of close peer relationships (Table 10).

Bicultural orientation the past five or six years. Nonpersisters were rarely asked to attend predominately Hispanic American functions on campus in comparison to persisters, a statistically significant difference (Table 5). As Loo and Rolison (1986) suggested, the fit of minority students within their own ethnic subculture on a college campus is as important for their adjustment to college as their fit with the overall college community environment.

The intra-inter-ethnic life-history functioning patterns among the three types of Biculturals in this study (Atraditional or Anglo-American cultural orientation, Traditional or Hispanic-American cultural orientation, Balanced or equally Anglo-American and Hispanic American in cultural orientation), in particular among the Balanced Biculturals, show tendencies to associate with Hispanic Americans in some settings and with Anglos in other settings. As Gonzalez (1978) observed, "biculturalism appears to be a sociological construct which describes daily contact with Mexican American and Anglo cultures" (p. 97) and bicultural individuals may have developed as Fitzgerald (1972) suggests a "cultural identity" and a "social identity" which operate selectively, depending on situational factors with social identity as a producer of change in the individual and cultural identity as a stabilizer of behavior (p. 94). Over the past five or six years, early childhood Atraditional Biculturals tended to revert to Balanced Biculturals (63%) or Traditional Biculturals (15%), although childhood Balanced Biculturals barely moved from the early life category. Persisters tended slightly more to identify recently as Balanced Biculturals than nonpersisters (Table 11).

Formal Social Integration. As compared to nonpersisters, a statistically larger number of persisters reported belonging to an organization on campus and attending extracurricular activities on campus, in moderation, a few times a semester (Table 8). More than half the nonpersisters (48%) did not belong to an on-campus organization. Nonpersisters (47%) reported attending extracurricular activities on campus one or twice a week or nearly everyday.

Institutional Commitment. There were no significant difference on selection rank between persisters and nonpersisters. OU and OSU were high priorities for selection by both groups. As compared to nonpersisters, persisters tended to agree that they had made the right decision in their choice of college, a statistically significant difference, (Table 8) and that graduation from and a continued affiliation with OU or OSU was important to them, an indication of high institutional commitment. Half of the nonpersisters agreed to strongly agreed that they had planned to return and complete their degrees--suggesting "stop outs".

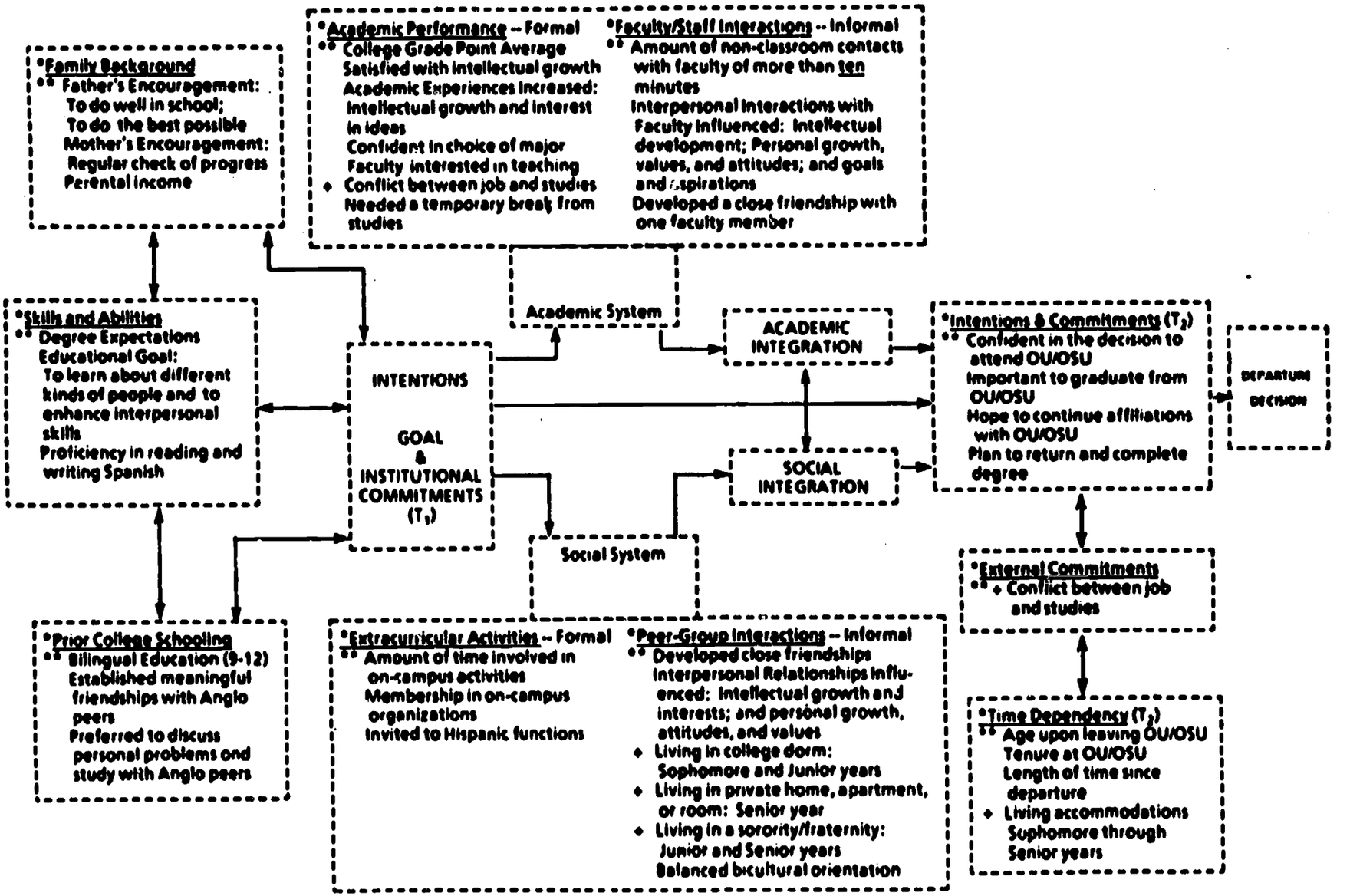
Summary and Conclusions

Within the constructs of the Tinto (1987) Model, Hispanic American persisters' success combined those Prior College Attributes they brought with them to college and their almost equal involvement in the Academic and Social Systems, both formal and informal as the pursued the Bachelor's degree (Figure 1, Flores' statistically significant findings in Tinto's Model). The relationship between Hispanic American student persistence and the two comprehensive, four-year institutions pointed to the congruence of "fit" of the two in terms of the Hispanic American student persister's background and the institutional climate. Tinto suggested that students who successfully integrate into either the academic domain or the social domain of a four-year institution of higher learning reinforce their initial intentions, goals, and institutional commitments and are more likely to persist. The study shows that Hispanic American students who were competent members of both the social and academic communities tended to persist. Hispanic American nonpersisters were less likely to find the informal social domain and the informal academic domain to be as responsive and open to their needs as their persisting counterparts. The results were generally supportive of the content validity of Tinto's Model.

Nearly 10 of every 100 young adults in the U.S. are Hispanic. But Hispanics receive less than three of every 100 Bachelor's degrees awarded each year by U.S. college and universities. (Hispanic education: A statistical portrait 1990 Washington, D.C.: Policy Analysis Center, National Council of La Raza, October, 1990, p. 83).

Flores, Judith LeBlanc (1989). The persistence and nonpersistence of Hispanic American students at two comprehensive universities. Unpublished doctoral dissertation, The University of Oklahoma, Norman, OK. UMI Catalog No. 9016173 00001.

Figure 1



TIME (T_1)
*Tinto Model Constructs; **Flores Findings Variables; ♦ Variable in two constructs
Figure 3. INTEGRATED FINDINGS: FLORES STUDY VARIABLES UNDER MAJOR CONSTRUCTS OF THE TINTO (1987) MODEL OF INSTITUTIONAL DEPARTURE

It is predicted that every third student in U.S. public schools will be a minority by the year 2000 and Hispanic American students will constitute the largest minority group. Therefore, there is a need to isolate factors that have appeared to contribute to persistence and nonpersistence of Hispanic American students in four-year residential colleges and universities. Inclusion of both traditional and nontraditional variables (e.g., precollege influences and personal background with college experiences) may best predict college outcomes for Hispanic American students and more importantly when are they at the greatest risk of withdrawing.

As Willet and Singer (1991) have recently put forth "some students neither drop out nor graduate; they stop out and return. And not all permanent dropouts leave in the same way; some leave voluntarily; some are expelled; some cannot complete the academic requirements; and others transfer, completing their degrees elsewhere" (p. 428). Furthermore, we "researchers want to identify the factors associated with both of these ends: (a) whether (and when) students drop out and why, and (b) whether (and when) students graduate and why" (pp. 427-428).

Although Hispanic American students, particularly Hispanic American females, have made some gains in their educational attainment in the decade of the 1980s, in terms of enrollment, with a slight increase in retention, in terms of baccalaureate degree completion (Digest of Educational Statistics, 1988, U.S. Department of Education; The Hispanic Population in the United States, 1988, U.S. Bureau of the Census), they are still underrepresented in proportion to the overall U.S. Hispanic population and below the level of their White non-Hispanic counterparts and in all disciplines. More withdraw than remain to complete their baccalaureate degrees.

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Table 1

T-Test Comparisons on Persisting and Nonpersisting Hispanic American Students

VARIABLE	N	Standard Mean	Standard Deviation	Standard Error	Variances	F Value	df	P Value
1. Academic (1-16)								
Persister	48	1.791	0.599	0.080	Equal	0.7235	92.0	0.8226
Nonpersister	46	1.791	0.530	0.807	Unequal		92.0	0.8225
2. Employment/ Financial (17-25)								
Persister	48	1.572	0.683	0.098	Equal	0.3422	89.0	0.2907
Nonpersister	46	1.734	0.787	0.116	Unequal		92.0	0.2892
3. Personal/ Familial (26-42)								
Persister	48	1.599	0.466	0.673	Equal	0.4046	92.0	0.4566
Nonpersister	46	1.467	0.411	0.060	Unequal		91.4	0.4554
4. Peer Group Interaction (1-8)								
Persister	49	3.383	0.382	0.546	Equal	0.1880	93.0	0.0038
Nonpersister	46	3.125	0.464	0.684	Unequal		87.4	0.0041
5. Interactions With Faculty (9-13)								
Persister	48	3.357	1.232	0.177	Equal	0.8920	92.0	0.0085
Nonpersister	46	2.743	0.955	0.140	Unequal		88.2	0.0082
6. Faculty Concerns (14-18)								
Persister	49	3.057	0.629	0.089	Equal	0.6117	92.0	0.5130
Nonpersister	46	2.743	0.578	0.068	Unequal		93.0	0.5120
7. Academic/ Intellectual Development (19-25)								
Persister	49	3.780	0.4714	0.673	Equal	0.0018	93.0	0.0007
Nonpersister	46	3.311	0.7518	0.110	Unequal		74.8	0.0009
8. Institutional/ Goal Commitment (26-32)								
Persister	49	3.572	0.481	0.068	Equal	0.2109	93.0	0.0001
Nonpersister	46	3.049	0.578	0.853	Unequal		87.1	0.0001
9. ACT - I Composite Scores								
Persister	42	18.860	5.854	0.881	Equal	0.7598	76.0	0.0997
Nonpersister	40	21.025	5.572	0.949	Unequal	0.7598	72.5	0.1001
10. ACT - II Composite Scores								
Persister	31	20.7903	5.796	1.048	Equal	0.8607	63.0	0.1610
Nonpersister	32	18.7132	5.987	1.267	Unequal		62.8	0.1604
11. ACT English Subset Scores								
Persister	31	20.7903	4.158	0.747	Equal	0.2321	61.1	0.0105
Nonpersister	32	17.0625	5.180	0.915	Unequal		59.0	0.0103
12. ACT Math Subset Scores								
Persister	31	19.9032	9.782	1.756	Equal	0.3256	61.0	0.2936
Nonpersister	32	17.5000	8.175	1.445	Unequal		58.4	0.2951
13. ACT Natural Science Subset Scores								
Persister	31	23.5161	5.661	1.016	Equal	0.5771	61.0	0.1325
Nonpersister	32	21.2187	6.271	1.108	Unequal		60.7	0.1319
14. ACT Social Science Subset Scores								
Persister	31	19.1612	6.792	1.219	Equal	0.8820	61.0	0.4715
Nonpersister	32	17.9375	6.613	1.169	Unequal		60.8	0.4717
15. Biocultural Early Life (1-21)								
Persister	49	1.676	0.699	0.071	Equal	0.0141	93.0	0.8526
Nonpersister	46	1.699	0.718	0.105	Unequal		79.7	0.8545
16. Biocultural Recent Life (22-40)								
Persister	49	3.133	0.571	0.081	Equal	0.1423	93.0	0.0004
Nonpersister	46	2.760	0.459	0.067	Unequal		90.9	0.0004
17. GPA High School								
Persister	49	3.000	1.755	0.250	Equal	0.3328	97.5	0.1142
Nonpersister	45	3.622	2.325	0.301	Unequal		92.0	0.1166
18. GPA College								
Persister	49	3.367	1.112	0.158	Equal	0.0120	92.0	0.0001
Nonpersister	45	4.555	1.617	0.241	Unequal		77.2	0.0001

Table 2

ITEM	Persisting *N = 49 f	%	Nonpersisting *N = 46 f	%	df	Chi-square & probability
HOW FATHER RAISED ME						
Encouraged me to do well						
Not at all true	1	2.08	3	6.67	2	X^2 = 6.122 p = 0.047*
Somewhat true	4	8.33	11	24.44		
Very true	43	89.58	31	68.69		
Urged me to do my best						
Not at all true	0	0.00	2	4.44	2	X^2 = 6.442 p = 0.040*
Somewhat true	3	6.25	9	20.00		
Very true	45	93.75	34	75.56		
HOW MOTHER RAISED ME						
Wanted to know my progress						
Not at all true	3	6.25	1	2.33	2	X^2 = 6.449 p = 0.040*
Somewhat true	4	5.33	12	27.91		
Very true	41	85.42	30	69.77		
ESTIMATED PARENTAL INCOME (As an undergraduate)						
Up to $20,000	5	10.20	13	28.26	4	X^2 = 15.000 p = 0.005**
Between $20,000-$25,000	4	8.16	8	17.39		
Between $25,000-$30,000	8	16.33	5	10.87		
More than $30,000	30	61.22	13	28.26		
Does Not Apply	2	4.08	7	15.22		

*N may not equal reported cases in all columns due to missing values or in the case of multiple choices in some items.
f = frequency counts, % = percentages, X^2 = chi-squares, p = probability score
* < .05
** < .01
(Close) < .05

Table 3

ITEM	Persisting *N = 49 f	%	Nonpersisting *N = 46 f	%	df	Chi-square & probability
PROFICIENCY IN SPANISH (Self-reported)						
Read	20	40.82 (66.67)	10	21.78 (33.33)	1	X^2 = 3.996 p = 0.046*
Write	18	36.73 (75.00)	6	13.04 (25.00)	1	X^2 = 7.053 p = 0.008**
Speak Fluently	14	28.57 (60.87)	9	19.57 (39.13)	1	X^2 = 1.049 p = 0.306
Speak Moderately	14	28.57 (56.00)	11	23.91 (44.00)	1	X^2 = 0.266 p = 0.606
Understand	15	30.61 (53.57)	13	28.26 (46.43)	1	X^2 = 0.063 p = 0.802
Understand Somewhat	17	34.69 (51.52)	16	34.69 (48.48)	1	X^2 = 0.060 p = 0.993
Do Not Understand	6	12.77 (33.33)	22	47.83 (66.67)	1	X^2 = 2.960 p = 0.085 (close)
DEGREE EXPECTATION						
None	0	0.00	4	8.89	5	X^2 = 20.534 p = 0.001**
Bachelors	11	22.45	25	55.56		
Masters	22	44.90	9	20.00		
PhD or Ed.D	11	22.45	3	6.67		
Other Professional	3	6.12	1	2.22		
Other	2	4.08	3	6.67		

*N may not equal reported cases in all columns due to missing values or in the case of multiple choices in some items.
f = frequency counts, % = percentages, X^2 = chi-squares, p = probability score
* < .05
** < .01
(Close) < .05

Table 4

ITEM	Persisting N = 49 f	%	Nonpersisting N = 46 f	%	df	Chi-square & probability
EDUCATIONAL GOALS						
To Gain a Liberal Arts Education						
Not at All Important	23	46.94	20	43.48	3	X^2 = 0.288
Somewhat Important	12	24.44	12	26.07		p = 0.968
Very Important	6	12.24	7	15.22		
Extremely Important	8	16.33	7	15.22		
To Gain Knowledge and Skills for a Career						
Not at All/Somewhat Important	1	2.04	4	8.70	2	X^2 = 4.603
Very Important	9	18.37	14	30.43		p = 0.100
Extremely Important	39	79.59	28	60.87		
To Learn About Myself and my Goals						
Not at All Important	2	4.08	6	13.00	3	X^2 = 4.732
Somewhat Important	10	20.41	11	23.91		p = 0.193
Very Important	13	26.53	15	32.61		
Extremely Important	24	48.98	14	30.43		
To Learn About Different Kinds of People and Enhance Interpersonal Skills						
Not at All Important	2	4.08	8	17.88	3	X^2 = 9.193
Somewhat Important	6	12.24	11	24.44		p = 0.027*
Very Important	14	28.57	12	26.27		
Extremely Important	27	55.10	14	31.11		

N may not equal reported cases in all columns due to missing values or in the use of multiple choices in some items.
f = frequency counts, % = percentages, X^2 = chi-squares, p = probability score
* < .05
** < .01
(Close) < .05

Table 5

ITEM	Persisting N = 49 f	%	Nonpersisting N = 46 f	%	df	Chi-square & probability
ESTABLISHED MEANINGFUL RELATIONSHIPS						
Entirely Hispanic	0	0.00	1	2.17	4	X^2 = 9.989
Mostly Hispanic	0	0.00	2	4.35		p = 0.041*
Equally Hispanic/Anglo	11	22.45	7	15.22		
Mostly Anglo	15	30.61	5	10.87		
Entirely Anglo	23	46.94	31	67.29		
PERSONS I DISCUSS PERSONAL PROBLEMS WITH						
Entirely Hispanic	0	0.00	1	2.17	4	X^2 = 16.180
Mostly Hispanic	0	0.00	3	6.52		p = 0.037*
Equally Hispanic/Anglo	8	16.33	6	13.04		
Mostly Anglo	14	28.57	4	8.70		
Entirely Anglo	27	55.10	32	69.57		
PEOPLE I STUDY WITH						
Entirely Hispanic	0	0.00	0	0.00	4	X^2 = 13.327
Mostly Hispanic	0	0.00	2	4.65		p = 0.004**
Equally Hispanic/Anglo	0	0.00	8	18.60		
Mostly Anglo	14	28.57	7	16.28		
Entirely Anglo	35	71.43	26	60.47		
INVITED TO HISPANIC AMERICAN FUNCTIONS						
Very Frequently	4	8.16	0	0.00	4	X^2 = 16.229
Quite Often	11	22.45	4	8.70		p = 0.003**
Sometimes	18	36.73	10	21.74		
Seldom	8	16.33	10	21.74		
Rarely or Never	8	16.33	22	47.83		

N may not equal reported cases in all columns due to missing values or in the case of multiple choices in some items.
f = frequency counts, % = percentages, X^2 = chi-squares, p = probability score
* < .05
** < .01
(Close) < .05

Table 6

ITEM	Persisting °N = 49 f	%	Nonpersisting °N = 46 f	%	df	Chi-square & probability
LIVING ARRANGEMENTS						
Freshman Year						
With parents	3	6.12	4	8.70	1	X^2 = 0.230 p = 0.631
Other private home, apartment, or room	6	12.24	5	10.67	1	X^2 = 0.044 p = 0.831
College dormitory	37	75.51	33	71.74	1	X^2 = 0.174 p = 0.677
Fraternity/sorority house	4	8.16	3	8.52	1	X^2 = 0.094 p = 0.760
Other student housing	1	2.04	1	2.17	1	X^2 = 0.002 p = 0.964
Sophomore Year						
With parents	2	4.08	4	8.70	1	X^2 = 0.854 p = 0.356
Other private home, apartment, or room	19	38.78	16	34.78	1	X^2 = 0.163 p = 0.687
College dormitory	20	40.82	10	21.74	1	X^2 = 3.996 p = 0.046*
Fraternity/sorority house	8	16.33	3	6.52	1	X^2 = 2.226 p = 0.136
Other student housing	1	2.04	1	2.17	1	X^2 = 0.002 p = 0.964
Junior Year						
With parents	3	6.12	4	8.70	1	X^2 = 0.230 p = 0.631
Other private home, apartment, or room	27	55.10	17	36.96	1	X^2 = 3.142 p = 0.076 (Close)
College dormitory	8	16.33	0	0.00	1	X^2 = 8.201 p = 0.004**
Fraternity/sorority house	7	14.29	1	2.17	1	X^2 = 4.513 p = 0.034*
Other student housing	3	6.12	2	4.35	1	X^2 = 0.150 p = 0.699
Senior Year						
With parents	4	8.16	4	8.70	1	X^2 = 0.009 p = 0.926
Other private home, apartment, or room	35	71.43	8	17.39	1	X^2 = 27.964 p = 0.001**
College dormitory	4	8.16	0	0.00	1	X^2 = 3.920 p = 0.048*
Fraternity/sorority house	4	8.16	0	0.00	1	X^2 = 3.920 p = 0.048*
Other student housing	2	4.08	1	2.18	1	X^2 = 0.282 p = 0.595

°N may not equal reported cases in all columns due to missing values or in the case of multiple choices in some items.
f = frequency counts, % = percentages, X^2 = chi-squares, p = probability score
* < .05
** < .01
(Close) < .05

Table 7

ITEM	Persisting *N = 49 f	%	Nonpersisting *N = 46 f	%	df	Chi-square & probability
NEEDED A TEMPORARY BREAK FROM STUDIES						
Not a Reason/Effect	22	45.83	22	47.83	3	X^2 = 12.806
Minor Reason/Effect	7	14.58	8	17.39		p = 0.005**
Moderate Reason/Effect	17	35.42	5	10.87		
Major Reason/Effect	2	4.17	11	23.91		
CONFLICT BETWEEN JOB AND STUDY						
Not a Reason/Effect	20	41.67	25	54.35	3	X^2 = 8.282
Minor Reason/Effect	17	35.42	5	10.87		p = 0.041*
Moderate Reason/Effect	6	12.50	7	15.22		
Major Reason/Effect	5	10.42	9	19.57		
UNDERGRADUATE GPA						
3.25 - 4.00	10	20.41	4	8.89	5	X^2 = 17.730
						p = 0.003**
2.75 - 3.24	15	30.61	8	17.78		
2.25 - 2.74	18	36.73	11	24.44		
1.75 - 2.24	5	10.20	9	20.00		
1.25 or less - 1.74	1	2.04	11	24.40		
Withdrew before first grading period	0	0.00	2	4.44		

*N may not equal reported cases in all columns due to missing values or in the case of multiple choices in some items.
f = frequency counts, % = percentages, X^2 = chi-squares, p = probability score
* < .05
** < .01
(Close) < .05

Table 8

ITEM	Persisting *N = 49 f	%	Nonpersisting *N = 46 f	%	df	Chi-square & probability
EXTRACURRICULAR ACTIVITIES ON CAMPUS (cultural, athletic, special events or clubs)						
Never	0	0.00	6	13.04	3	X^2 = 15.201
						p = 0.002**
A few times a semester	21	42.86	6	13.04		
A few times a month	12	24.49	12	26.90		
Once or twice a week/ everyday	16	32.45	22	47.83		
INFORMAL CONTACTS WITH FACULTY						
None	4	8.16	18	39.13	4	X^2 = 17.280
						p = 0.002**
One to three	20	40.82	18	39.13		
Four to six	10	20.41	6	13.04		
Seven to nine	3	6.12	2	4.35		
More than nine	12	24.49	2	4.35		
RIGHT DECISION TO ATTEND OU/OSU						
Strongly Disagree	1	2.04	3	6.52	4	X^2 = 12.730
Disagree	0	0.00	5	10.87		p = 0.013*
Agree	16	32.65	13	28.26		
Strongly Agree	28	57.18	15	32.61		
No Opinion	4	8.16	10	21.74		

*N may not equal reported cases in all columns due to missing values or in the case of multiple choices in some items.
f = frequency counts, % = percentages, X^2 = chi-squares, p = probability score
* < .05
** < .01
(Close) < .05

Table 9

ITEM	Persisting *N = 49 f	%	Nonpersisting *N = 46 f	%	df	Chi-square & probability
CLOSE PERSONAL RELATIONSHIPS WITH FACULTY						
Strongly Disagree	5	10.42	9	19.57	4	X^2 = 16.042
Disagree	13	27.08	7	15.22		p = 0.003**
Agree	9	18.75	14	30.43		
Strongly Agree	17	35.42	4	8.70		
No Opinion	4	8.33	12	26.09		
NONCLASSROOM FACULTY INFLUENCE ON PERSONAL GROWTH						
Strongly Disagree	8	16.67	9	19.57	4	X^2 = 12.059
Disagree	10	20.83	10	21.74		p = 0.017*
Agree	12	25.00	10	21.74		
Strongly Agree	11	22.92	1	2.17		
No Opinion	7	14.58	16	34.78		
STUDENTS' SATISFACTION WITH INTELLECTUAL GROWTH						
Strongly Disagree	0	0.00	5	10.87	4	X^2 = 13.673
Disagree	5	10.20	8	17.39		p = 0.018*
Agree	27	55.10	14	30.43		
Strongly Agree	14	28.57	10	21.74		
No Opinion	3	6.12	8	17.39		
FACULTY INFLUENCE ON GOALS AND ASPIRATIONS						
Strongly Disagree	6	12.50	10	21.74	4	X^2 = 11.022
Disagree	10	20.83	8	17.39		p = 0.026*
Agree	10	20.83	9	19.57		
Strongly Agree	14	29.17	3	6.52		
No Opinion	8	16.67	16	34.78		
ACADEMIC INFLUENCE ON INTELLECTUAL GROWTH						
Strongly Disagree	0	0.00	1	2.17	4	X^2 = 11.245
Disagree	1	2.04	5	10.87		p = 0.024*
Agree	20	40.82	22	47.83		
Strongly Agree	27	55.10	13	28.26		
No Opinion	1	2.04	5	10.87		
SATISFACTION WITH ACADEMIC EXPERIENCE						
Strongly Disagree	1	2.04	8	17.78	4	X^2 = 14.689
Disagree	4	8.16	6	13.13		p = 0.020*
Agree	24	48.98	13	28.89		
Strongly Agree	16	32.65	10	22.22		
No Opinion	4	8.16	8	17.78		
FACULTY INTERESTED IN TEACHING						
Strongly Disagree	4	8.16	2	4.35	4	X^2 = 12.445
Disagree	6	12.24	5	10.87		p = 0.014*
Agree	15	30.61	23	50.00		
Strongly Agree	16	32.65	3	6.52		
No Opinion	8	16.33	13	28.26		

*N may not equal reported cases in all columns due to missing values or in the case of multiple choices in some items.
f = frequency counts, % = percentages, X^2 = chi-square, p = probability score
* < .05
** < .01
(Close) < .05

Table 10

ITEM	Persisting *N = 49 f	%	Nonpersisting *N = 46 f	%	df	Chi-square & probability
CLOSE PEER RELATIONSHIPS						
Strongly Disagree	0	0.00	3	6.52	4	X^2 = 18.188
Disagree	1	2.04	1	2.17		p = 0.001**
Agree	13	26.53	17	36.96		
Strongly Agree	34	69.39	15	32.61		
No Opinion	1	2.04	10	21.74		
SATISFACTION WITH PEER FRIENDSHIPS						
Strongly Disagree	0	0.00	3	6.52	4	X^2 = 11.864
Disagree	1	2.04	2	4.35		p = 0.018*
Agree	16	32.65	17	36.96		
Strongly Agree	31	63.27	17	36.96		
No Opinion	1	2.04	7	15.22		
INTERPERSONAL INFLUENCE ON PERSONAL GROWTH						
Strongly Disagree	0	0.00	2	4.35	4	X^2 = 12.058
Disagree	0	0.00	3	6.52		p = 0.017*
Agree	14	28.57	19	41.30		
Strongly Agree	31	63.27	15	32.61		
No Opinion	4	8.16	7	15.22		
INTERPERSONAL INFLUENCE ON INTELLECTUAL GROWTH						
Strongly Disagree	0	0.00	2	4.35	4	X^2 = 12.872
Disagree	2	4.08	4	8.70		p = 0.012*
Agree	16	32.65	18	39.13		
Strongly Agree	28	57.14	12	26.09		
No Opinion	3	6.12	10	21.74		

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f = frequency counts, % = percentages, X^2 = chi-squares, p = probability score
* < .05
** < .01
(Close) < .05

Table 11

ITEM	Persisting *N = 49 f	%	Nonpersisting *N = 46 f	%	df	Chi-square & probability
BICULTURALISM INVENTORY, EARLY LIFE (1-21)						
Balanced	2	4.08	7	15.22	1	X^2 = 3.432
Atraditional	47	95.92	39	84.88		p = 0.064
Traditional	0	0.00	0	0.00		(Close)
BICULTURALISM INVENTORY, RECENT LIFE (22-40)						
Balanced	33	67.35	28	60.87	2	X^2 = 9.896
Atraditional	5	10.20	15	32.16		p = 0.007**
Traditional	11	22.45	3	6.52		

CROSS TABULATION OF BICULTURALISM INVENTORY 1-21, 22-40

	Last 5 or 6 Years: Balanced		Atraditional		Traditional			
Balanced Early Life	7	11.48	1	5.00	1	7.14	2	X^2 = 0.840 p = 0.657
Atraditional Early Life	54	88.52	19	95.00	13	92.86		
TOTAL	61		20		14			

*N may not equal reported cases in all columns due to missing values or in the case of multiple choices in some items.
f = frequency counts, % = percentages, X^2 = chi-squares, p = probability score
* < .05
** < .01
(Close) < .05