

*Latino College Student Success at Hispanic-Serving Institutions:
NSSE as a Tool to Understand Seniors' Experiences and Perceptions **

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Hispanic-Serving Institutions (HSIs), defined by their Latino college student enrollment, contribute a significant percentage of Latinos earning the baccalaureate degree, but the role of HSIs has been minimally examined. This paper adds to the growing debate about which measures of success are valid and reliable indicators of academic progress for Latino students. Illustrative data from college seniors at Hispanic-Serving Institutions who participated in the National Survey of Student Engagement (NSSE) about their educational experiences are used to highlight an alternative approach to assessing undergraduate education and Latino college student success.

Within the national debate over the effectiveness of public school instruction and the need for a professional and technical workforce in the 21st century, one significant issue continues to be the low rate of baccalaureate degree attainment by Latinos or Hispanics (Vernaz & Mizell 2001; Fry, 2002; Carey, 2004). The challenge is to clarify and remedy at least some of the causes for the disparity between the degree completion rates of White and African-American students and that of Latino students. Many interrelated factors affect Latino college student attitudes and behaviors, as well as the policies and procedures of higher education institutions that impact campus climate where they enroll. What have emerged, however, are a variety of investigative and/or monitoring approaches by public and private entities that tend to assign blame to Latino families and/or the community schools where many Latino children and adolescents learn and presumably prepare for a college education (Fry, 2004).

Hispanic-Serving Institutions (HSIs) are defined in federal legislation as public or not-for-profit institutions of higher education that enroll 25 percent or more undergraduate Hispanic full-time equivalent students, have low educational and general expenditures,

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and a high enrollment of needy students (P.L.105-244, 1998). Enrollment at these institutions from 1990 to 1999 increased at twice the national rate, growing from about 1,225,000 to approximately 1,398,000, or by 14 percent (Stearns & Watanabe, 2002). Even more importantly, HSIs contribute a significant percentage of Latinos who earn the baccalaureate degree, but their role has been minimally examined (Santiago, Andrade & Brown, 2004). This paper adds to the growing debate about which measures of success are valid and reliable indicators of academic progress for Latino college students. Illustrative data from Latino college seniors about their educational experiences at Hispanic-Serving Institutions that participated in the National Survey of Student Engagement (NSSE) are used to highlight an alternative approach to assessing the quality of undergraduate education, specifically in reference to Latino college student success.

The Latino Student Success Research Demonstration Project

During 2003-04, representatives from six HSIs in three major states with a significant percent of Latino populations and whose campuses enroll a large percentage of Latino college students participated in an 18-month research project funded by the Fund for the Improvement of Postsecondary Education (FIPSE) of the U.S. Department of Education. They included:

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| California | California State University-Dominguez Hills California State University-Los Angeles |
| New York | CUNY-Lehman College CUNY-New York City College of Technology |
| Texas | The University of Texas at El Paso The University of Texas at San Antonio (Phase 1) The University of Texas-Pan American (Phase 2) |

These public institutions can be characterized as large, urban, commuter campuses, with the majority of their students working to pay for tuition, most of whom are the first in their family to pursue a degree, and many of whom struggle with issues related to inadequate high school preparation.

In that academic year, however, all six HSIs ranked in the top 100 institutions in the continental United States in terms of Latino college student enrollment, and five were

represented in the top 100 colleges awarding baccalaureate degrees to Latinos, ranking 2nd, 3rd, 6th, 27th, and 51st (*The Hispanic Outlook in Higher Education*, 2005). The Latino Student Success Inquiry Model that emerged from their joint efforts compared institutional practices and outcomes of Latino students (for more background on the project, see www.EdExcelencia.org). Two of the principal objectives of the project were to assess current campus data collection activities at the six baccalaureate-granting HSIs and to explore the use of data by administrators and faculty to encourage Latino student persistence and academic success.

Another objective was to become more aware of and to learn from other systematic efforts to examine college student success indicators and issues of institutional effectiveness with respect to student learning and degree completion. A fourth objective was to determine what indicators the LSS HSI institutions shared in common other than a freshman persistence rate and a six-year graduation rate. A fifth objective was to assess existing tools for analyzing the academic experiences and progress of Latino students.

Development of the Latino Student Success Inquiry Model

The project research team worked with the six campus institutional research offices to determine what data were available for Latino students (Santiago, Andrade, & Brown 2004). In addition, because of growing accountability pressures in all levels of policy formation (Edelman, 1999; Ewell, Schild, & Paulson, 2003; Morrison, 2003; Perry, 2004; Texas Higher Education Coordinating Board; Texas Legislative Budget Board; The University of Texas System; University of Southern California), the institutions shared findings for their campuses from major initiatives at four levels of data collection and analysis: national, state, public university systems, and projects focused on minority students.

Policy arenas continue to emphasize the traditional metrics of a one-year freshman persistence rate and a four-year or six-year graduation rate, primarily because the figures are available for all institutions and are generally comparable in their statistical definitions. The six Latino Student Success HSIs concurred that a principal measure of Latino student success should be the completion of a baccalaureate degree

but noted that there are many circumstances that mitigate this measure of success which institutions cannot control:

... while retention and graduation rates are valid indicators used by all institutions, the "time to degree" ... and the value added to a student's education are not generally measures that are considered when determining the effectiveness of an institution in serving its students. In light of what is known about "non-traditional" students' participation in higher education -- they attend part-time and have other obligations that may prolong their enrollment and time to degree - there are other institutional measures that can also measure Latino student success and can inform and improve institutional practices. (Santiago, Andrade, & Brown, 2004, 9)

They suggested several institutional indicators and measures to consider as part of a systematic analysis of trends in Latino student progress toward the baccalaureate degree, among them:

- The available pool of Latino college applicants in the community compared to the number who enroll (i.e., the annual number of Latino high school graduates, the number of those high school graduates who completed a college-preparatory curriculum, and the high school drop-out rates of Latino students from feeder school districts and statewide);
- The percent of Latino first-time freshmen who are the first in their families to pursue a college degree and analyses of their academic progress and degree completion;
- The one and two-year persistence rates for Latino transfer students (in particular those from feeder community colleges);
- The success rate of Latino students in "gateway" courses, such as English Composition and Mathematics; and
- Six-year, eight-year, and ten-year graduation rates of Latino first-time, full-time freshmen, as well as four-year and six-year graduation rates for Latino transfer students. (Santiago, Andrade, & Brown, 2005)

In addition, they noted the importance of an institution tracking the number of its Latino baccalaureate recipients who apply for and continue on to graduate programs, as well as the number who receive a master's and/or doctoral degree.

Because of faculty and administrator interest in fostering a supportive campus climate at the LSS HSI sites, one of the most relevant sources of data for the project was the National Survey of Student Engagement ([NSSE, Indiana University - www.nsse.iub.edu](http://www.nsse.iub.edu)). NSSE is an annual survey of first-year and senior students that asks them about their participation in educational experiences that prior research has linked to valued student learning and developmental outcomes (Chickering & Gamson, 1987; Kuh, 2001). Results generated from the survey can be used to focus institutional improvement efforts, inform accountability measures, and provide an alternative measure of the quality of undergraduate education. The fact that all six of the LSS HSI sites had participated in the NSSE project allowed these institutional partners to compile and share their students' responses.

Methodology of This Study

Annually, NSSE invites a stratified random sample of undergraduate students to assess the extent to which they are involved in educational practices that have been linked to high levels of learning and development (Kuh, 2001). The 2004 NSSE data file was used for all but one of this study's institutions. One of the six LSS HSI sites did not participate in 2004 but had participated in 2003. In order to include their students in the analysis, comparable data from their 2003 data file was appended to the 2004 file. Cases where item wording and/or response values changed between 2003 and 2004 were not used.

NSSE asks students to report the frequency with which they engage in activities that represent good educational practice. They are also asked about how they spend their time, their perceived growth at the institution, and their opinions about the institution. Finally, students respond to a set of background items that capture personal characteristics such as ethnicity, gender, and parent's education. The survey takes about 15 minutes to complete.

In 2004, NSSE responses were collected from approximately 200,000 students at 473 colleges and universities. In most cases, an equal number of first-year and senior

students were randomly sampled from those who were enrolled in the fall semester, with the number of each group being determined in alignment with the institution's overall enrollment. However, institutions have the option to collect additional responses by targeting specific student groups (i.e., minority students) and locally administering the survey (i.e., NSSE sends the institution a box of surveys that institutional representatives administer themselves). The average institutional response rate in 2004 was about 42 percent, with a range of 15 to 89 percent. In comparison, the average response rate for the six LSS HSIs was 39 percent, ranging from 29 to 50 percent.

As a follow-up study for the Latino Student Success demonstration project, this investigation examined Latino senior respondent differences across scales derived from NSSE. The focus was on seniors as "survivors," i.e., students who had demonstrated academic success and were likely to attain a bachelor's degree. Two types of student-level scales were used for this purpose: the five NSSE benchmarks of effective educational practice and five auxiliary scales. The component items from one additional scale were examined separately.

The NSSE benchmarks were central to this study, because they address elements that research studies have shown to be important to student learning. As such, these measures provide an indication of students' participation in effective educational practice (Kuh, 2001). The five benchmarks are: Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment. Table 1 lists the items that comprise each of these scales.

[INSERT TABLE 1 HERE]

The Level of Academic Challenge scale is constructed from 11 items and represents a measure of the extent to which schools engage their students in challenging intellectual and creative work. The seven items under Active and Collaborative Learning focus on the degree to which institutions intensely involve their students in the learning experience, making it more "hands-on." The six questions of the Student-Faculty Interaction benchmark address opportunities students have to interact with faculty inside and outside of the classroom. One item was dropped from the typical construction of the Student-Faculty Interaction scale so that data from all Six Latino Student Success

institutions could be included. The 11 items of the Enriching Educational Experiences scale target student participation in complementary learning experiences. Finally, the Supportive Campus Environment benchmark is constructed from six items that address the academic and non-academic support students perceive, as well as the quality of their relationships with others on their campus.

Five additional NSSE scales were included in this analysis, because significant differences were observed for them between seniors at the Latino Student Success HSIs and Latino students elsewhere. They are: overall educational gains, gains in general education areas, general satisfaction, diversity, deep learning, and quality of campus relationships. The overall gains scale is a 16-item measure of the extent to which students perceive their institution has contributed to their personal development, practical competence, and general education. The gains in general education is a sub-scale of the overall gains scale that focuses on broad educational competencies. The two-item general satisfaction scale addresses the students' satisfaction with their overall college experience. The three items in the diversity scale measure the opportunities students have to interact with people who are different from them in terms of race/ethnicity, religious beliefs, political opinions, or personal values. The 15-item deep learning scale includes activities that take students to more profound levels of meaning and understanding. The five scales with their items are displayed in Table 2.

[INSERT TABLE 2 HERE]

Finally, the study included three quality of campus relationships items that asked students to report the nature of their relationships with other students, faculty members, and administrative personnel. Given meaningful item-level results, these items were not combined into a single scale for this study and were instead considered separately.

Consistent with how the benchmark scales are reported to institutions, all scale items were first converted to a 0 to 100 point scale. For the eight items that address the student's participation in enriching education experiences, those students who indicated that they had already "done" the activity received a score of 100, while those students who "plan to do," "do not plan to do," or who "have not decided" to do the activity receive a 0. Other items are converted using the formula $[(\text{response value}-1)/(1 - \text{total number})]$

of response values)]. For example, on an item where a student has been given a 1, 2, 3, or 4, that student receives a value of 0, 33.33, 66.67, or 100, respectively.

Student-level scale scores were derived by calculating the mean item response across all scale items. A mean was calculated for each student so long as s/he had answered 60 percent of the items in any particular group. The three quality of relationship items that were considered separately were not converted to a 100-point scale because of interest in speaking to the average student response on each item. This change does not affect the analysis as the significance and effect sizes are the same regardless of how the values are expressed.

Limitations

The 2004 data set was constrained in several ways to make the comparisons drawn in this study more appropriate and meaningful. First, only responses from randomly sampled students were used in this analysis. Next, only public institutions in the three states where the Latino Student Success HSI sites are located (California, Texas, and New York) were selected. The data set was also restricted to students who identified themselves as being of Hispanic, Latino, or Spanish origin. Finally, only senior respondents were used in this study. These limitations resulted in a pool of 1,387 students (of whom 75 were from the 2003 data file) from 31 colleges and universities. Eleven of these 31 institutions (35%) are Hispanic-Serving Institutions (HSIs) as defined by the federal government (with the six LSS HSIs being included in the total of 11).

Analyses Completed in This Study

Using the NSSE data described above, two sets of comparisons were drawn. In each comparison an independent samples t-test was calculated with an effect size being drawn from these results to provide a more meaningful estimate of mean differences. The effect size is calculated by dividing the mean difference by the pooled standard deviation.

The first comparison provided an overview of the differences between Latino senior students at HSIs and at non-HSIs in general. The results of this first analysis were also used to examine how the results from the six LSS HSI sites differ from HSIs in general. Secondly, responses from Latino seniors at the LSS HSI sites were compared to Latino senior responses from Non-HSI colleges and then to all Latino students in these three states. The LSS sites were not compared to other HSIs in the three states,

because after the removal of the LSS sites there were not enough HSIs to use as an appropriate comparison group.

Results

NSSE Benchmarks - Latino seniors at all HSIs in the three states reported having a significantly less enriching educational experiences and a significantly more supportive campus environment than did Latino seniors at non-Hispanic Serving Institutions (Non-HSIs) as shown in Table 3.

[INSERT TABLE 3 HERE]

A similar finding of less enriching educational experiences was found in the analysis of Latino senior students at the six Latino Student Success (LSS HSIs), as compared to non-HSIs (see Table 4). However, the difference between the six LSS HSIs and all Latino seniors in the three states was not significant.

[INSERT TABLE 4 HERE]

Latino seniors at the LSS HSI sites reported significantly more positive campus experiences in contrast to Latinos at non-HSIs on two key NSSE benchmarks: participating in active and collaborative learning activities and the supportiveness of the campus environment. In addition, the LSS site Latinos reported experiencing a higher level of academic challenge than those at Non-HSIs, with this result only just missing significance at the .05 level. These findings held even when the students at the six LSS sites were compared against all other Latino seniors in the region. Similar significant findings on these three benchmarks were not obtained in the sample of all Latino seniors at HSIs.

Finally, It is important to note that significant differences were not found in the examination of the NSSE Student-Faculty Interaction Benchmark. Thus, regardless of whether they were enrolled at an HSI, non-HSI, or LSS HSI, students reported similar levels of interaction with faculty.

Other NSSE Scales - Latino seniors at all HSIs reported a significantly positive pattern of educational gains when contrasted to those at non-HSIs (see Table 5). Latino students at the six LSS HSIs reported a similar pattern of statistically significant higher scores in

terms of their overall educational gains and in general education areas (see Table 6). In addition, they reported more improvement but not significant differences in deep learning.

Latino students at HSIs and at the six LSS sites also reported significantly less general satisfaction with their educational experience than other students. Finally, Latino seniors at all HSIs reported significantly less opportunity to experience diversity than Latino students at non-HSIs. This finding was not significant, however, for the six LSS sites.

[INSERT TABLES 5 AND 6 HERE]

Quality of Relationships - Equally interesting were the differences on one key item -- and the similarity and insignificance of two others. There were no statistically significant differences between all Latino seniors at HSIs and those at non-HSIs in terms of the quality of their relationships with faculty members or administrative personnel (with a similar finding in the comparisons of the six LSS HSI sites). Latinos at HSIs, however, reported a significantly higher quality of relationship with other students, and Latinos at the six LSS HSIs had an even higher quality of relationship with other students, as presented in Tables 7 and 8.

[INSERT TABLES 7 AND 8 HERE]

Discussion and Implications

Although graduation and retention rates are central to assessing Latino success in college, a comprehensive measure of success must move beyond such mandated measures. From the national perspective, a limited number of Hispanic-Serving Institutions currently play a major role in awarding baccalaureate degrees to Latino students. As HSIs seek to develop additional supportive policies and innovative practices to promote student achievement, other elements of success, such as student engagement in campus activities, their perceptions of the campus environment, and self-reported developmental gains should also be considered. The National Survey of Student Engagement is a widely used instrument that can provide valuable self-reported measures of effective educational activities and students' resulting success and that can be used for appropriate comparisons with other institutions with similar missions,

resources, and student demographics. Preliminary results from a multiyear joint initiative of minority-serving institutions suggest that these campuses can use NSSE data for multiple purposes: integrating the findings with other indicators, determining needs of entering students, identifying obstacles to student progress toward graduation, reaching mission attainment through strategic planning, and representing the institution to external communities (Bridges et al., 2005).

What is particularly provocative about the NSSE results in this study is that the six fiscally challenged LSS HSI sites received more positive feedback from their Latino seniors than those at non-HSIs in several important academic areas. All students at HSIs, including the LSS sites, indicated significantly higher levels of overall educational gains and improvement in general educational areas, as well as a higher perception of a supportive campus environment. Beyond this, however, Latino seniors at the six LSS HSI sites reported higher participation in active and collaborative learning activities and higher levels of academic challenge by faculty. In addition, students at the LSS HSI sites described more engagement in deep learning. These results appear to validate the premise of the demonstration project that a need exists for exploratory research on different types of HSIs to better understand Latino student experiences and the conditions that support their academic success.

Even though there were no statistical differences between the two types of institutions in terms of student interaction with faculty, it may be that faculty at the six Latino Student Success sites are demanding more from Latino students and generating greater gains in their academic knowledge and skills than those at non-HSIs. Or perhaps the campus involvement of student peer mentors as reported during the demonstration project site visits (Santiago, Andrade, & Brown, 2004) may be both challenging and supporting other students to learn and graduate. Thus, this study's findings about quality of relationships with faculty, administrators and other students suggest that the emphasis of the Latino Student Success HSIs on peer advising, peer tutoring, peer mentoring and special campus activities for their largely commuter student body may be as critical a factor in Latino persistence and achievement as involvement with faculty. Ironically, these so-called less prestigious Hispanic-Serving Institutions may be maintaining high academic standards and promoting the academic skills that Latino, and often first-

generation, students need to succeed in higher education and to obtain their baccalaureate degrees.

The Latino HSI senior indicators suggesting lower levels of enriching educational experiences and less satisfaction with their general educational experience may be due to the fact that HSIs in general have experienced very rapidly growing enrollments. During the Latino Student Success demonstration project, the campus teams of the six LSS institutions reported having limited financial resources to manage that growth, a situation probably typical of most public HSIs. Administrator and faculty interviews also suggested that students and sometimes faculty and staff at HSIs may suffer from feelings of low institutional prestige or a type of inferiority complex, with some community members and students viewing their campus solely as one of open access that admits unprepared students, doesn't have adequate facilities, has low graduation rates, etc. This contrasts with the Latino seniors' significantly positive responses on several NSSE measures, and analyses of first-year students' perceptions would be valuable for comparisons.

Nonetheless, public accountability systems should not turn uncritically toward the use of so-called satisfaction measures, particularly those based on one or two items. First-generation college students may not have a framework of appropriate comparisons to provide objective feedback about their overall educational experience, or they may overestimate their learning. The positive findings in this study point to a general need for objective measures of student learning in addition to self-reports, although the six LSS HSI site representatives expressed deep skepticism about current national trends toward standardized testing. Institutional researchers are challenged to work with academic and student affairs administrators to identify, pilot and implement more effective indicators of student progress, such as cohort progression through gateway courses, freshman and sophomore admissions to degree programs with extra requirements, success of community college transfer students, and long-term graduation rates. To fully understand those data, however, institutions will also have to analyze their organizational priorities and instructional processes that impact student academic success, including remediation policies, the coherence of curricula, and educational activities that foster peer interaction, as well as the availability of data to support faculty planning and improvement efforts (Massy, 2003).

In the case of Latino students -- and indeed probably all first-generation college students -- it is also critical to ensure that additional information is available about their background characteristics, campus experiences and perceptions of their academic progress. Given the heterogeneity of students encompassed in the terms "Hispanic" and "Latino," the authors urge attention to the impact of historical experience, national origin, language facility, socioeconomic status, and gender.

Finally, results from the first phase of the Latino Student Success demonstration project concluded that one of the key factors in the significant number of baccalaureate degrees awarded to Latinos by those six HSIs has been the leadership of their presidents in providing clear directives to faculty and staff about having high expectations and appropriate support services for the institution's students (Santiago, Andrade & Brown, 2004). Such presidential leadership demands useful and appropriate measures of accountability. Researchers focused on the challenges of HSIs and other minority-serving institutions know that, "All institutions are grappling with the same fundamental issue: how to obtain the kind of information that will point to those critical areas where the institution can improve or enhance the quality of the student experience" (Bridges et al., 2005, 30). As the participating Latino Student Success presidents acknowledged, comparing freshmen persistence rates or four-year graduation rates will add little to such efforts. In contrast, a balanced combination of learning assessment measures, student surveys about campus climate and engagement in key academic activities, and interviews with administrators and faculty about curricular and instructional processes - in addition to persistence and graduation measures - can guide the implementation of more proactive policies and more effective practices to foster the academic success of Latino students, as well as others on campus.

Conclusion

Latino college students do not graduate at the same rate as White and African American students. Yet a small number of Hispanic-Serving Institutions (HSIs) contribute a notable proportion of Latinos who do attain the baccalaureate degree. This study examined responses to the National Survey of Student Engagement (NSSE) by Latino senior students at three different types of public institutions of higher education in California, New York and Texas: six HSIs participating in a research demonstration project to explore accountability for the academic success of Latino undergraduates, all HSIs (including the six), and all Non-

Hispanic-Serving Institutions (Non-HSIs). The NSSE benchmarks, selected scales and other items were analyzed for differences among the three types.

In spite of some results indicating lower general satisfaction of students at the HSIs, students at both the Latino Student Success sites and those at other HSIs indicated significantly higher educational gains, including in general education areas. At both the LSS HSI sites and at other HSIs, Latino seniors also reported a significantly higher quality of relationships with other students and a supportive campus environment than did those at Non-HSIs, while there were no differences in terms of interaction with faculty. The facile explanation for these latter findings could be simply the demographic mass of Latino students on HSI campuses. Preliminary research on the LSS sites, however, suggests that the students' judgments might be related to the emphasis of LSS campuses on the use of peer mentors, tutors, and advisors and the development of culturally targeted activities for their largely commuter student bodies. Furthermore, Latino seniors at the six LSS sites reported significantly higher levels of academic challenge, active and collaborative learning, and engaging in "deep learning" than did students at Non-HSIs.

As demands for higher education accountability grow and the emphasis continues to be on metrics such as four- and six-year graduation rates, greater understanding of the academic success and graduation patterns of Latino college students can be gained by use of more comprehensive indicators that capture Latino experiences, such as the National Survey of Student Engagement. And in spite of their modest graduation rates, the achievements of Hispanic-Serving Institutions in guiding notable numbers of Latino students to the baccalaureate degree also warrant additional research so that their effective practices can influence public policy and practices of other campuses.

References

- Bridges, B.K., Cambridge, B., Kuh, G.D., Leegwater, L.H. (2005). Student engagement at minority-serving institutions: Emerging lessons from the BEAMS project. *New Directions for Institutional Research*, No. 125, 25-43.
- Carey, K. (2004). *A matter of degrees: Improving Graduation rates in four-year colleges and Universities*. Washington: Education Trust.
- Chickering, A. W. and Z. F. Gamson (1987). Seven principles for good practice in undergraduate education. *AAHE Bulletin* 39(7), 3-7.
- Edelman, C. (1999). *Answers in the tool box: Academic intensity, attendance patterns, and bachelor's degree attainment*. Washington, D.C.: U.S. Department of Education (USGPO 1999-452-108-10323).
- Ewell, P. T., Schild, P. R., & Paulson, K. (2003). *Following the mobile student: Can we develop the capacity for a comprehensive database to assess student progression?* Indianapolis: Lumina Foundation for Education Research Report.
- Fry, R. (2002). *Latinos in higher education: Many enroll, few graduate*. Washington, D.C.: Pew Hispanic Center.
- Fry, R. (2004). *Latino youth finishing college: The role of selective pathways*. Washington, D.C.: Pew Hispanic Center.
http://www.pewhispanic.org/site/docs/pdf/The%20Role%20of%20Selective%20Pathways_formattedFINAL-06-23-04.pdf
- The Hispanic Outlook in Higher Education*. (2005). The Top 100 Colleges for Hispanics. May 9, 2005, 12-25.
- Kuh, G. D. (2001). Assessing What Really Matters to Student Learning: Inside the National Survey of Student Engagement. *Change* 33(3), 10-17, 66.
- Morrison, T. G. (2003). *Undergraduate degree completion by age 25 to 29 for those who enter college 1947 to 2002*. Oskaloosa, Iowa: Postsecondary Education Opportunity, No. 137. <http://www.postsecondary.org/home/default.asp>
- P.L. 105-244. (1998) Title V, Higher Education Act of 1965, as amended.
- Perry, R. (2004). Executive Order RP31 - January 22, 2004: Relating to accountability of higher education systems and institutions.
<http://www.governor.state.tx.us/divisions/press/exorders/rp31/view>
- Santiago, D., Andrade, S. J., & Brown, S. (2004). *Latino student success at Hispanic-Serving Institutions*. El Paso: The University of Texas at El Paso. www.edexcelencia.org
- Sterns, C. & Watanabe, S. (2002). *Hispanic Serving Institutions: Statistical trends from 1990 to 1999*. Washington, D.C.: National Center for Education Statistics, NCES Report No. 2002-051.

Vernaz, G. & Mizell, L. (2001). *Goal: To double the rate of Hispanics earning a bachelor's degree*. Santa Monica, CA: Rand.

Websites

Excelencia in Education. Latino Student Success. www.EdExcelencia.org

Indiana University. National Survey of Student Engagement. www.indiana.edu/~nsse/

Texas Higher Education Coordinating Board. (2002). Texas Higher Education Plan: Closing the Gaps, By 2015. <http://www.thecb.state.tx.us/PerformanceMeasures/>

Texas Legislative Budget Board. <http://www.lbb.state.tx.us/>

The University of Texas System (2004). Accountability and Performance Report. <http://www.utsystem.edu/cha/AcctRpt/2003/homepage.htm>

University of Southern California. (2004). Designing and Implementing the Diversity Scorecard to Improve Institutional Effectiveness for Underserved Minority Students. <http://www.usc.edu/dept/education/CUE/projects/ds/diversityscorecard.html>

Table 1.
NSSE Benchmarks and Component Items

Level of Academic Challenge (11 items, $\alpha = .714$)

- Number of assigned textbooks, books, or book-length packs of course readings^a
- Number of written papers or reports of 20 pages or more^a
- Number of written papers or reports between 5 and 19 pages^a
- Number of written papers or reports of fewer than 5 pages^a
- Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components^b
- Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships^b
- Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions^b
- Applying theories or concepts to practical problems or in new situations^b
- Worked harder than you thought you could to meet an instructor's standards or expectations
- Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)^c
- Spending significant amounts of time studying and on academic work^b

Active and Collaborative Learning (7 items, $\alpha = .660$)

- Asked questions in class or contributed to class discussions
- Made a class presentation
- Worked with other students on projects during class
- Worked with classmates outside of class to prepare class assignments
- Tutored or taught other students (paid or voluntary)
- Participated in a community-based project (e.g., service learning) as part of a regular course
- Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)

Student-Faculty Interaction (5 items, $\alpha = .775$)

- Discussed grades or assignments with an instructor
- Discussed ideas from your readings or classes with faculty members outside of class
- Talked about career plans with a faculty member or advisor
- Received prompt feedback from faculty on your academic performance (written or oral)
- Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)
- Work on a research project with a faculty member outside of course or program requirements^d

Note: Except where noted, variables were measured on a 4-point scale (1=Never, 2=Sometimes, 3=Often, 4=Very Often)

^a Responses for this item were 1=None, 2=Between 1 and 4, 3=Between 5 and 10, 4=Between 11 and 20, 5=More than 20

^b Responses for this item were 1=Very little, 2=Some, 3=Quite a bit, 4=Very much

^c Response for this item were 1=0, 2=1-5, 3=6-10, 4=11-15, 5=16-20, 6=21-25, 7=36-30, 8=More than 30

^d Response for this item were changed from 2003 to 2004, this item was not used in the calculation of this scale

Table 1 (cont). NSSE Benchmarks and Component Items

Enriching Educational Experiences (12 items, $\alpha = .589$)

- Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values
- Had serious conversations with students of a different race or ethnicity than your own
- Encouraging contact among students from different economic, social, and racial or ethnic backgrounds^a
- Participating in co-curricular activities (organizations, campus publications, student government, social fraternity or sorority, intercollegiate or intramural sports, etc.)^b
- Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment^c
- Practicum, internship, field experience, co-op experience, or clinical assignment^c
- Participate in a learning community or some other formal program where groups of students take two or more classes together^c
- Community service or volunteer work^c
- Foreign language coursework^c
- Study abroad^c
- Independent study or self-designed major^c
- Culminating senior experience (comprehensive exam, capstone course, thesis, project, etc.)^c

Supportive Campus Environment (6 items, $\alpha = .755$)

- Providing the support you need to thrive socially^a
- Providing the support you need to help you succeed academically^a
- Helping you cope with your non-academic responsibilities (work, family, etc.)^a
- Relationships with: Other Students^d
- Relationships with: Faculty Members^e
- Relationships with: Faculty Members^e

Note: Except where noted, variables were measured on a 4-point scale (1=Never, 2=Sometimes, 3=Often, 4=Very Often)

^a Responses for this item were 1=Very little, 2=Some, 3=Quite a bit, 4=Very much

^b Response for this item were 1=0, 2=1-5, 3=6-10, 4=11-15, 5=16-20, 6=21-25, 7=36-30, 8=More than 30

^c These items were recoded 0=undecided, do not plan to do, plan to do 1=done

^d Responses for this option were 1=unfriendly, unsupportive, sense of alienation to 7=friendly, supportive, sense of belonging

^e Responses for this option were 1=unavailable, unhelpful, unsympathetic to 7=available, helpful, sympathetic

^f Responses for this option were 1=unhelpful, inconsiderate, rigid to 7=helpful, considerate, flexible

Table 2.
Auxiliary NSSE Scales and Component Items

Overall Educational Gains (16 items, $\alpha = .921$)

- Developing a personal code of values and ethics
- Contributing to the welfare of your community
- Developing a deepened sense of spirituality
- Understanding yourself
- Understanding people of other racial and ethnic backgrounds
- Solving complex real-world problems
- Voting in local, state, or national elections
- Learning effectively on your own
- Working effectively with others
- Writing clearly and effectively
- Speaking clearly and effectively
- Thinking critically and analytically
- Acquiring a broad general education
- Acquiring job or work-related knowledge and skills
- Analyzing quantitative problems
- Using computing and information technology

Gains in General Education Areas (4 items , $\alpha = .848$)

- Writing clearly and effectively
- Speaking clearly and effectively
- Thinking critically and analytically
- Acquiring a broad general education

General Satisfaction (2 items, $\alpha = .735$)

- How would you evaluate your entire educational experience at this institution?^a
- If you could start over again, would you go to the *same institution* you are now attending?^b

Diversity (3 items, $\alpha = .656$)

- Had serious conversations with students of a different race or ethnicity than your own^c
- Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values^c
- Encouraging contact among students from different economic, social, and racial or ethnic backgrounds

Note: Except where noted, variables were measured on a 4-point scale (1=Very Little, 2=Some, 3=Quite a Bit, 4=Very Much)

^a Responses for this item were 1=Poor, 2=Fair, 3=Good, 4=Excellent

^b Responses for this item were 1=Definitely No, 2 = Probably No, 3=Probably Yes, 4=Definitely Yes

^c Responses for this option were 1=Never, 2=Sometimes, 3=Often, 4=Very Often

Table 2 (cont.). Auxiliary NSSE Scales and Component Items

Deep Learning (15 items, $\alpha = .889$)

- Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components^a
- Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships^a
- Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions^a
- Applying theories or concepts to practical problems or in new situations^a
- Worked on a paper or project that required integrating ideas or information from various sources
- Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments
- Put together ideas or concepts from different courses when completing assignments or during class discussions
- Discussed ideas from your readings or classes with faculty members outside of class
- Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)
- Learned something from discussing questions that have no clear answers?
- Examined the strengths and weaknesses of your own views on a topic or issue?
- Tried to better understand someone else's views by imagining how an issue looks from his or her perspective?
- Learned something that changed the way you understand an issue or concept?
- Applied what you learned in a course to your personal life or work?
- Enjoyed completing a task that required a lot of thinking and mental effort?

Quality of Campus Relationships (3 items)

- Relationships with: Other Students^b
- Relationships with: Faculty Members^c
- Relationships with: Administrative Personnel^d

Note: Except where noted, variables were measured on a 4-point scale (1=Never, 2=Sometimes, 3=Often, 4=Very Often)

^a Responses for this item were 1=Very little, 2=Some, 3=Quite a bit, 4=Very much

^b Responses for this option were 1=unfriendly, unsupportive, sense of alienation to 7=friendly, supportive, sense of belonging

^c Responses for this option were 1=unavailable, unhelpful, unsympathetic to 7=available, helpful, sympathetic

^d Responses for this option were 1=unhelpful, inconsiderate, rigid to 7=helpful, considerate, flexible

Table 3.
Mean Comparisons of Benchmark Scores at HSIs and Non-HSIs

| NSSE Benchmark | HSIs ¹ | | | Non-HSIs ² | | | | |
|--|-------------------|------|------|-----------------------|------|------|-------------|-------------|
| | N | Mean | SD | N | Mean | SD | Effect Size | Sign. |
| Level of Academic Challenge | 906 | 56.7 | 14.0 | 450 | 55.5 | 14.3 | .08 | .147 |
| Active and Collaborative Learning | 925 | 50.6 | 16.9 | 462 | 48.9 | 17.2 | .10 | .077 |
| Student-Faculty Interaction ³ | 924 | 41.0 | 21.2 | 462 | 40.7 | 20.8 | .01 | .816 |
| Enriching Educational Experiences⁴ | 841 | 31.2 | 16.5 | 452 | 34.7 | 17.0 | -.21 | .000 |
| Supportive Campus Environment | 907 | 58.1 | 19.1 | 449 | 56.0 | 18.6 | .11 | .051 |

¹ This column includes scored responses from Latino senior students at public HSIs in TX, CA, or NY.

² This column includes all Latino senior students at public, non-HSIs in TX, CA, or NY.

³ To include the LSS HSI site that last participated in 2003 in the scale calculation, one incomparable item was not included in the calculation.

⁴ Due to several incomparable items from 2003 to 2004 in this scale, data from one of the LSS HSI sites was not included in the calculation of this scale.

Table 4.
Mean Comparisons of Benchmark Scores at LSS HSI Sites, Non-HSIs and from all Regional Latino Students

| | LSS HSI Site ¹ | | | Non-HSIs ² | | | | | All Other Latino ³ | | | | |
|--|---------------------------|------|------|-----------------------|------|------|-------------|-------------|-------------------------------|------|------|-------------|-------------|
| | N | Mean | SD | N | Mean | SD | Effect Size | Sign. | N | Mean | SD | Effect Size | Sign. |
| NSSE Benchmark | | | | | | | | | | | | | |
| Level of Academic Challenge | 642 | 57.2 | 14.3 | 450 | 55.5 | 14.3 | .12 | .051 | 714 | 55.4 | 14.0 | .13 | .022 |
| Active and Collaborative Learning | 650 | 51.1 | 17.0 | 462 | 48.9 | 17.2 | .12 | .041 | 737 | 49.2 | 16.9 | .11 | .043 |
| Student-Faculty Interaction ⁴ | 650 | 41.3 | 21.1 | 462 | 40.7 | 20.8 | .03 | .626 | 736 | 40.5 | 21.0 | .04 | .468 |
| Enriching Educational Experiences⁵ | 572 | 32.2 | 17.0 | 452 | 34.7 | 17.0 | -.14 | .022 | 721 | 32.5 | 16.6 | -.02 | .774 |
| Supportive Campus Environment | 642 | 58.4 | 18.9 | 449 | 56.0 | 18.6 | .13 | .031 | 714 | 56.4 | 19.1 | .11 | .051 |

¹ This column includes scored responses from Latino senior students at the six LSS demonstration sites but not from other HSIs in these states.

² This column includes all Latino senior students at public, non-HSIs in TX, CA, or NY.

³ These figures include responses from all Latino senior respondents in the three states except the six LSS sites.

⁴ To include the LSS HSI site that last participated in 2003 in the scale calculation, one incomparable item was not included in the calculation.

⁵ Due to several incomparable items from 2003 to 2004 in this scale, data from one of the LSS HSI sites was not included in the calculation of this scale.

Table 5.
Mean Comparisons of Auxiliary Scales at HSIs and Non-HSIs

| Auxiliary Scale | HSIs ¹ | | | Non-HSIs ² | | | Effect Size | Sign. |
|--|-------------------|------|------|-----------------------|------|------|-------------|-------------|
| | N | Mean | SD | N | Mean | SD | | |
| Self-Reported Educational Gains | 910 | 46.8 | 15.3 | 449 | 44.5 | 16.1 | .14 | .012 |
| General Educational Gains | 910 | 55.9 | 16.4 | 449 | 53.7 | 16.9 | .13 | .025 |
| General Satisfaction | 907 | 52.8 | 16.5 | 448 | 55.4 | 17.2 | -.15 | .010 |
| Diversity | 923 | 36.6 | 19.4 | 462 | 38.8 | 19.7 | -.11 | .048 |
| Deep Learning | 910 | 48.0 | 13.0 | 459 | 47.4 | 13.4 | .05 | .373 |

¹ This column includes scored responses from Latino senior students at public HSIs in TX, CA, or NY.

² This column includes all Latino senior students at public, non-HSIs in TX, CA, or NY.

Table 6.
Mean Comparisons of Auxiliary Scales at LSS HSI Sites, Non-HSIs and from all Regional Latino Students

| Auxiliary Scale | LSS HSI Site ¹ | | | Non-HSIs ² | | | | | All Other Latino ³ | | | | |
|--|---------------------------|------|------|-----------------------|------|------|-------------|-------------|-------------------------------|------|------|-------------|-------------|
| | N | Mean | SD | N | Mean | SD | Effect Size | Sign. | N | Mean | SD | Effect Size | Sign. |
| Self-Reported Educational Gains | 645 | 46.8 | 15.2 | 449 | 44.5 | 16.1 | .14 | .015 | 714 | 45.3 | 15.9 | .10 | .067 |
| General Educational Gains | 645 | 56.4 | 16.2 | 449 | 53.7 | 16.9 | .16 | .010 | 714 | 54.1 | 16.8 | .14 | .011 |
| General Satisfaction | 642 | 52.6 | 16.4 | 448 | 55.4 | 17.2 | -.16 | .007 | 713 | 54.7 | 17.1 | -.12 | .020 |
| Diversity | 650 | 37.5 | 19.4 | 462 | 38.8 | 19.7 | -.07 | .265 | 735 | 37.2 | 19.6 | .01 | .805 |
| Deep Learning | 638 | 48.7 | 13.0 | 459 | 47.4 | 13.4 | .10 | .104 | 731 | 47.0 | 13.3 | .12 | .023 |

¹ This column includes scored responses from Latino senior students at the six LSS demonstration sites but not from other HSIs in these states.

² This column includes all Latino senior students at public, non-HSIs in TX, CA, or NY.

³ These figures include responses from all Latino senior respondents in the three states except the six LSS sites.

Table 7.
Mean Comparisons of Selected Items at HSIs and Non-HSIs

| NSSE Item | HSIs ¹ | | | Non-HSIs ² | | | Effect Size | Sign. |
|---|-------------------|------|-----|-----------------------|------|-----|-------------|-------------|
| | N | Mean | SD | N | Mean | SD | | |
| Quality of relationship with other students | 913 | 5.87 | 1.3 | 454 | 5.66 | 1.3 | .16 | .004 |
| Quality of relationship with faculty members | 913 | 5.52 | 1.4 | 454 | 5.48 | 1.3 | .03 | .642 |
| Quality of relationship with administrative personnel | 913 | 4.82 | 1.7 | 454 | 4.78 | 1.7 | .02 | .681 |

¹ This column includes scored responses from Latino senior students at public HSIs in TX, CA, or NY.

² This column includes all Latino senior students at public, non-HSIs in TX, CA, or NY.

Table 8.
Mean Comparisons of Selected Items at LSS HSI Sites, Non-HSIs and from all Regional Latino Students

| NSSE Item | LSS HSI Sites ¹ | | | Non-HSIs ² | | | | | All Other Latino ³ | | | | |
|---|----------------------------|------|-----|-----------------------|------|-----|-------------|-------------|-------------------------------|------|-----|-------------|-------------|
| | N | Mean | SD | N | Mean | SD | Effect Size | Sign. | N | Mean | SD | Effect Size | Sign. |
| Quality of relationship with other students | 644 | 5.91 | 1.2 | 454 | 5.66 | 1.3 | .19 | .001 | 723 | 5.71 | 1.4 | .15 | .003 |
| Quality of relationship with faculty members | 644 | 5.52 | 1.3 | 454 | 5.48 | 1.3 | .03 | .593 | 723 | 5.49 | 1.4 | .03 | .616 |
| Quality of relationship with administrative personnel | 644 | 4.82 | 1.6 | 454 | 4.78 | 1.7 | .03 | .655 | 723 | 4.79 | 1.7 | .02 | .691 |

¹ This column includes scored responses from Latino senior students at the six LSS demonstration sites but not from other HSIs in these states.

² This column includes all Latino senior students at public, non-HSIs in TX, CA, or NY.

³ These figures include responses from all Latino senior respondents in the three states except the six LSS sites.

Does Andrade Cien Almas drink alcohol?: Not Known. He was born in Mexico and is the third generation in his family who wrestled for WWE after his grandfather and father. In 2009, when he was part of CMLL, he had been the champion of three titles at the same time including Mexican National Trios Championship, NWA World Historic Welterweight Championship, and CMLL World Tag Team Championship. Triple H is the man who identified his talent and skills and promoted him to NXT in 2015. The Sally Andrade Papers also include a series of Written Works. Each series is organized alphabetically. Materially the Erasmo Andrade Papers is the by far the larger of the two sections, comprising ten out of thirteen boxes. Erasmo Andrade's Personal and Biographical series consists of those papers that document his personal life and that of his family. Index Terms. The Erasmo and Sally J. Andrade Papers are classified under the following Subject Headings: Andrade, Erasmo. Andrade, Sally J. Sally Andrade | High School SPED Teacher. Sally Andrade ELA. Mail A Hug. Craft Activities For Kids, Toddler Activities, Preschool Activities, Kids Arts And Crafts, Art Games For Kids, Craft Projects For Kids, Indoor Activities, Craft Ideas, Toddler Fun.