

**Latino Scoreboard on Texas Higher Education:
*Just Who's "Closing the Gaps"?***

*by Arturo Vega, Ph.D.
St. Mary's University*

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Research Report No. 39

May 2008

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ABSTRACT

This paper assesses the effectiveness of the *Closing the Gaps Higher Education Plan* approved and implemented by the Texas Higher Education Coordinating Board in 2000 to improve the quality of higher education and address educational gaps prevalent among the state's diverse populations. The plan targets the four areas for improvement: **1)** student participation, **2)** success, **3)** excellence, and **4)** research. This paper focuses only on the first and second goals. In addition to providing an overview of *Closing the Gaps*, a Latino Scorecard is presented for 34 of Texas' public universities based on eight institutional measures including resources, enrollments, graduation rates, student/faculty ratios, affordability, student diversity, faculty representativeness, and local population figures. The overall scorecard is produced by adding the z-scores for the eight measures for each institution. Negative values are assigned to two z-scores, one a measure of student/faculty equity and the other a measure of affordability. The negative values provide counterweights to the effects of Latino majority enrollments at South Texas institutions (a correlated variable) and to the relatively higher tuition costs at some institutions (another correlated variable).

Statistical analyses show that Latino students are concentrated at institutions at the lower end of the State's higher education stratification system, which are located in South Texas where this population is concentrated. They also show that these institutions received fewer resources than those institutions at the top of the system. Consequently, while the scorecard ranks the institutions in terms of how well they do by Latinos, the statistical analyses shows that geographic location is related to Latino enrollments and institutional resources are related to Latino graduation rates.

ABOUT THE AUTHORS

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The **Julian Samora Research Institute** is committed to the generation, transmission, and application of knowledge to serve the needs of Latino communities in the Midwest. To this end, it has organized a number of publication initiatives to facilitate the timely dissemination of current research and information relevant to Latinos.

- *Research Reports*: **JSRI**’s flagship publications for scholars who want a quality publication with more detail than usually allowed in mainstream journals. These are produced in-house. Research Reports are selected for their significant contribution to the knowledge base of Latinos.
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- *Occasional Papers*: for the dissemination of speeches, papers, and practices of value to the Latino community which are not necessarily based on a research project. Examples include historical accounts of people or events, “oral histories,” motivational talks, poetry, speeches, technical reports, and related presentations.

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This paper was originally presented at the 20th Annual Conference of the Hispanic Association of Colleges and Universities, Oct. 28-31, 2006, at San Antonio, Texas and at the 32nd Annual Conference of the Texas Association of Chicanos in Higher Education, Feb. 1-3, 2007, in Dallas, Texas.

Latino Scoreboard on Texas Higher Education Institutions: *Just Who's "Closing the Gaps"?*

Analysis

"Beauty-queens" or "Not so Beautiful," agents of change or just agents, what should we make of public institutions of higher education in Texas in terms of their efforts and capacities to "close the gaps" among various race and ethnic groups, specifically Latinos, in the state. Are some institutions "better" for Latinos than others? Equally, are some institutions "doing worse" than others relative to Latino students? And, just which institutions of higher education are "closing the gaps" and which are just "free riders"?

This paper provides an overview of the status of Latino students in Texas public colleges and universities by summarizing official annual progress reports pertaining to the *Closing the Gaps* initiative in Texas and by creating a Latino Scorecard of institutions of higher education in the State. By focusing exclusively on public 4-year institutions and using annual reported data, this paper assesses Texas universities relative to their 'success' measured in terms of eight indicators relative to Latino students. Finally, analysis of variance and multiple regression techniques are used to examine the impact of the indicators on enrollments and graduation rates.

Why do this? There are two good reasons. One is that Texas ranks second in the nation, after California, in the number of Latinos in its population. The second is that the examination of how well Texas institutions of higher education address Latino student needs is an important issue of accountability and provides information to make informed choices for education policymakers trying to understand how well institutions are performing.

Like many states, the State of Texas maintains a *de facto* stratified system of higher education not only across the levels of community colleges and universities but within each of the levels as well. Indeed, with the concentration of Latinos at the lower end of the higher education stratification system one might go as far as to say that an

"apartheid-like" system exists — with the lower resourced institutions struggling to meet the educational needs of Latinos in the state. For instance, in 2005, 60% of Latinos enrolled in public 4-year institutions were at nine universities located in South Texas.

Moreover the National Center for Public Policy and Higher Education recently warned that "Texas' underperformance in educating its young population could limit the state's access to a competitive workforce and weaken its economy over time" (2006: p3). The National Center further added: "Texas does not perform well in college completion rates. Internationally, Texas not only ranks very low in the number of certificates and degrees it produces, it is outpaced by such low-performing nations as the Czech Republic and Hungary" (ibid).

Other facts and figures from The National Center for Public Policy and Higher Education provide an unwelcoming higher education portrait:

- *In Texas, 53% of students are enrolled in community colleges and 36% in public 4-year college and universities;*
- *Only a fair percentage (49%) of first-year students in community colleges return for their second year;*
- *Only a fair percentage (51%) of first-time college students complete a bachelor's degree within six years of entering college;*
- *The State's population is projected to grow by 26% from 2005 to 2020, far faster than the national rate of 14%;*
- *About 22% of the adult population has less than a high school diploma or its equivalent, compared to 14% of adults nationwide;*
- *In Texas, 2,885 more students are leaving the state than are entering to attend college. About 9% of Texas High school graduates who go to college attend college out of state;*
- *Low and middle-income families in Texas earn on average \$18,152 per year and for students at public 4-year colleges and universities, net college costs represent about 45% of their annual family income.*

These findings are exactly what the State of Texas is seeking to address through its *Closing the Gaps* initiative. This paper will shed some light on Texas' efforts to make improvements in the education of its people.

Closing the Gaps Initiative

The Texas Higher Education Coordinating Board (THECB) adopted the *Closing the Gaps Higher Education Plan* in September, 2000. The Plan focuses on four challenges in higher education seen as the most critical for the future of the state and its economy. The four challenges are: 1) closing the gaps in participation, 2) closing the gaps in success, 3) closing the gaps in excellence, and 4) closing the gaps in research. The Plan set forth specific goals for each of the challenges. For example, the Plan set forth the goal of enrolling 5.7% of Latino, African American, and White populations in colleges and universities by 2015 to “ensure that Texas educates more of its people” (THECB, 2005, p. i). This would require an additional 500,000 students based on 2000 enrollment rates. With Latinos having a participation rate of 3.7% (relative to their overall population) in 2000, the Plan set 5-year target rates of 4.4% for 2005 (requiring 101,600 additional students), 5.1% for 2010 (120,000) and 5.7% for 2015 (120,000). The target of 500,000 additional students attending public colleges and universities in 2015, according to the THECB, will be met by — among other things — increasing the Latino student enrollments from 212,123 in 2000 to 553,723 in 2015, a net increase of 341,600 students with Latinos comprising 68.3% of the additional students.¹

The Plan specifies strategies to close each of the gaps, including institutional goals. The Board clearly recognized that achievement of the goals would require financial resources and institutional initiative and included incentive strategies for moving public colleges and universities to action. It also required the development and implementation of a performance system that would monitor progress on each major element in the Plan. Each of the state's public institutions, including 35 universities,² 50 community college districts (some

with multiple campuses), nine health-related institutions, and four technical state colleges, has been impacted by the implementation of the “Closing the Gaps Plan,” with each feeling the pressures of the Coordinating Board and its accountability requirements.

All the while that the Plan has been in effect, Texas has experienced major demographic changes in its population, and its institutions of higher education continue to struggle with the growth of student populations. For example, student enrollments at public institutions increased from 875,231 in the fall of 2000 to 1,066,606 in the fall of 2005, reflecting an increase of approximately 21.9%. Determining how much of this growth is due to the *Closing the Gaps* initiative and how much is due to demographic processes is difficult to do. Certainly, both processes have had their respective impacts.

An initial assessment of the respective influences can be made, however, by comparing the growth rate of Latinos in general to their enrollment growth rate in institutions of higher education from 2000 to 2005. Census 2000 set the population figures for Texas at 20,851,820, with Latino population figures set at 6,669,666, or 32% of the state's population. Estimates from the State Demographer's Office assuming zero net migration (a conservative assumption) projected the state's population for 2005 at 22,556,027 and the Latino population at 7,820,842.

The growth rate for each of these population categories is 8.2% and 17.3%, respectively.³ The THECB, in a *Participation Forecast* report dated January 2005, estimated the state's population at 23,002,555, and the Latino population at 8,144,538. The respective growth rate for each of these population categories using the Board's figures is 10.3% and 22.1%, respectively.⁴ Latino enrollments in public institutions increased from 212,123 in 2000 to 291,504 in 2005.⁵ This reflects a growth rate of 37.4% between the years 2000 and 2005, and shows that the growth of Latino enrollments exceeds the group's overall population growth by approximately 15%.

Still, based on annual enrollment figures, the THECB held in January 2005 that Latinos were not on track to reach the statewide targets by 2005.⁶ Indeed, actual figures for the fall of 2005 show that the target of 340,000 was not met, falling short by 30,272 students.⁷ To make the target, Latino student enrollments would have needed to increase by 43.2%. Thus, for the Initiative's targets for Latinos for 2010 and 2015 to be met, their growth rates must exceed those initially set by the Plan to make up the goal shortfall evident in 2005.

Given changes in the growth rates among the different groups, the State revised its intermediate goals by increasing the 2010 targets for African Americans (from 5.4% to 5.6%) and Whites (5.4% to 5.7%) and reducing the 2010 target for Latinos (from 5.3% to 4.8%), which experienced higher than expected general population growth. The total participation rate goal would increase from 5.5% to 5.6% in 2010. The targets of 5.7% for 2015 were maintained for each of the groups. These changes in the intermediate targets would require 630,000, rather than 500,000, additional students enrolled in public universities in 2015. The overall target would require an additional 438,706 Latinos students, who would comprise 69.6% of the additional students. It is doubtful, however, that the growth rates can be increased to make up the deficits unless some dramatic improvements are made by the state's institutions. To meet the targets, the numbers of Latino students in public universities would have to be dramatically increased.

For example, 60.9% of Latino students in 2000 were enrolled in the state's community and technical (2-year) colleges. In 2005, this figure had increased slightly to 61.9%. Thus, the distribution of Latino students across the levels of institutions remained much the same during this period. While increases in community college-going rates among Latinos create a larger pool from which the universities can draw transfer students, it is important that universities not only increase Latino transfer admissions, but they must also increase their rates for Latino freshmen. Otherwise, the concentration of Latinos in 2-year institutions will increase and further exacerbate the inequities that already characterize higher education.

Context: Why Does It Matter and What are Implications for Latinos?

Few things in academia evoke as intense and passionate debate and discussion as the ranking of higher education institutions, whether they be based on academic performance or reputation (Carey and Duffy, 1999). Most of the controversy centers on the appropriateness of the indicators that are used and the methods of analyses, although fears abound among institutional leaders that rankings may reflect negatively on their institution.

For nearly two decades, several popular periodicals have created cottage industries by ranking and providing selection guides to institutions of higher education across the country (*US News and World Report; Business Week America's Best Colleges, Time* magazine, the *Princeton Review, Money Magazine*; even the National Science Foundation). *Business Week*, for example, provides business school rankings. The *Princeton Review* ranks programs and institutions by using student surveys. Popular rankings include the "Best Dollar Value" and the "Biggest Party School."

Few, if any, rankings exist with Latinos in mind. *The Hispanic Outlook*, for example, has recognized some Hispanic Serving Institutions as leaders in educating Latinos by using enrollment and graduation figures. The Texas Association of Chicanos in Higher Education (TACHE), and principally Ed Apodoca from the University of Houston-Downtown, has intermittently provided both formal and informal "overviews" of Texas institutions with varied successes. TACHE no longer rates institutions for fear of offending institutional members and lack of agreement as to which indicators to use.

Why the angst? In short, institutional reputation and status matter. Sharp (1995) writes: "On one level or another, people continually evaluate and make judgments about an institution on the basis of various types of information—some accurate and some not" (p. 2). Reputations and status matter to institutions in their abilities to recruit and retain students to their institutions. Ask the University of

Texas-Austin, for example, what winning the national collegiate football championship means in regard to recruitment and retention of students. Reputations and status matter also for the recruitment of faculty and ultimately the caliber of faculty in terms of research funds generated and publications.

On the other hand, from a socio-economic perspective, and more importantly for Latino consumers (parents and students), institutions of higher education remain one of the principal and seemingly readily available mechanisms of “social opportunity” for overcoming social and economic inequalities. At the same time, however, institutions of higher education can reify those inequalities. Carey (2004) writes:

Once, those who tried and failed to get a college degree still had the opportunity to find a solid middle-management job and move up a career ladder... The world has changed. The rapidly globalizing 21st Century economy is putting relentless pressure on lower-skill manufacturing jobs that once allowed people without post secondary education to stay comfortably within the middle class.

For Latinos, being able to assess the quality of public institutions of education can translate into economic and social mobility. According to Census data, for example, the average earnings for Latinos were \$25,824 compared to a nationwide average of \$36,308; the average was \$37,376 for Whites, and \$28,179 for African Americans (Stoops, 2004, p7). In contrast, the average earnings for individuals with bachelor’s degrees were \$51,194; \$52,479 for Whites, \$42,285 for African Americans, and \$40,949 for Latinos. With higher education degrees impacting income in this way, it is important to understand how well institutions are doing in educating Latino students.

Controversies over rankings are largely methodological. Questions of validity and reliability as well as procedural concerns relative to weighting are typical (see Crissey, 1997; Selingo, 1997). The dilemma rests not only with the ranks/ratings and who is making them but the measures that are used and even the levels of measurement to use (ordinal versus interval versus ratio). In addition, there is little consensus on what indicators should be used when comparing different types of institutions (teaching versus research) or even what means of classifying institutions to use (Carnegie versus state classifications).

But what are the issues relative to Latino parents and students? Admission and graduation are indicators of institutional access and success. Affordability is a measure of present and future financial stress for Latino parents, students and even families, given the seemingly unending double-digit increases in college tuition and continual decreases in federal aid programs. Issues of diversity, equity, and the use of resources are also important considerations.

Methods for a Latino Scoreboard

The Latino Scorecard developed in this work focuses only on 34 public universities in Texas.⁸ It does not include the community and technical colleges, nor does it include the health-related institutions (at this time). In addition, rather than using previous scores or ranks, this work develops and examines indicators using the latest available official data (2005). Our aim is to use these indicators as benchmark data in the development of trend analyses over the next several years.

Given the historical track records of institutions of higher education in Texas, we hypothesize that measures of equity or parity will vary by institutional type and that Texas institutions of higher education are stratified by both proximity to Latino communities and institutional resources. We expect that institutions with readily available Latino populations, for example, will have the lion’s share of Latino student enrollments and graduations and

rank well on other measures of effectiveness relative to Latinos. Equally, we expect that the premier research institutions of the State (Texas A&M and, perhaps, Texas Tech), given their resources and state-wide appeal to high performing Latino students, will also fare better than the less resourced institutions of higher education in the state.

Table 1 summarizes the eight measures incorporated for the scorecard. Ratio level measurements are derived to compare institutional measures to relevant statewide measures and to compare institutional performance measures for Latino students relative to their White student counterparts. Ultimately, focusing on ratios of Latino students to White students at each institution using a variety of measures creates assessments of equity relative to the challenge of “closing the gaps” between the two groups. Institutions that approximate parity among the indicators will have high cumulative scores or ranks under this process. Standardizing and summing the eight indicators provides the cumulative score of each institution. In general, the lower the standardized score, the less well the institution performed relative to the measures used. Conversely, the higher the standardized score, the better the institution performed.

Resources, for example, are measured as a ratio of instructional costs (2005) per full time equivalent student to the state average instructional costs per student of \$5,715 (**RinstrcostpstTOstave**). The state average was derived by summing all the instructional costs and dividing by the 34 institutions used in this study. The THECB defines instructional costs as “funds used for all activities that are a part of an institution’s instructional program to include faculty salaries, academic departmental operating expenses, and support staff salaries” (2006, 5). A ratio of 1.0 indicates that the institution has instructional costs equal to the state average. Similarly, a ratio greater than 1.0 means that an institution exceeds the state average and, conversely, less than 1.0 indicates that instructional costs are below the state average.

Two indicators of *effectiveness* are also used in this analysis. First, a criterion (**RLsixgrtoWsixgr**) is developed by comparing the institutions’ graduation rates for Latinos and White students. Using the reported 6-year graduation rates for undergraduates for Fall 1999 Latino and White student cohorts and, by comparing these rates as a ratio, a measure of an institution’s effective graduation rate for Latinos relative to White students is derived.⁹ A ratio of 1.0 indicates that there is no disparity in graduation rates. Greater than 1.0 indicates that Latinos have a higher 6-year graduation rate; while a ratio less than

Table 1. Criteria Used to Develop Scorecard

VARIABLE	VARIABLE NAME	MEASURE
RESOURCES	RinstrcostpstTOstave	Ratio instructional cost (2005) per student FTE (Fall 2005) to state average instructional cost per student (\$5715)
EFFECTIVENESS	RLsixgrtoWsixgr	RATIO Latino student 6-year graduation rate to White student 6-year graduation rate
EFFECTIVENESS	DgradratetoNATLrate (sixyr)	Difference of the National 6-year graduation average rate to institution 6-year graduation rate
DIVERSITY	RLfactoWfac	RATIO #Latino faculty to #White faculty
DIVERSITY	RLenrolltoWenroll	Ratio Latino enrollment to White enrollment (2005)
EQUITY	RLstudfactoWstudfac * - 1	RATIO Latino student/Latino faculty to White student/White faculty
AFFORDABILITY	RaveTRUtoLFammedinc *-1	RATIO average cost of residential undergraduate tuition to state median income Latino family (\$32,011)
ACCESS	RpctLenrolltopctL 825	Ratio Latino enrollment to Latinos age 18-25 in service area (county/state)

1.0 indicates that White students have a higher 6-year graduation rate. In addition, *effectiveness* is measured by comparing the institution's overall graduation rate to the national 6-year graduation average rate (.52) for all types of universities (**DgradratetoNATLrate [sixyr]**) as derived by the National Center for Education Statistics (2006). This measure is the difference of an institution's 6-year graduation average to the national average. A positive value indicates that an institution is doing fairly well; while scores below suggest the opposite.

Institutional *diversity* is measured for the purposes of this paper in two ways: first, as the ratio of the number of Latino faculty to the number of White faculty (**RLfactoWfac**). This measure benchmarks the level of all Latino faculty representation (Full, Associate, and Assistant Professors, Instructors and "Other" Faculty as reported by THECB accountability system) on each campus. One of the critical graduation factors for racial, ethnic minorities and female students is the presence of faculty of color and women (Reed, 1986). The number and presence of racial, ethnic minority and women faculty signals to prospective students of the same backgrounds that the university environment is a relatively welcoming one, where members of their own ethnicity or sex are also present and viable. Because many Latino faculty members are employed at the rank of instructor or "other," rather than using tenure or a tenure track number, the larger more inclusive "faculty" category was used here for both Latino and White faculty. Here a ratio of 1.0 indicates that the number of Latino faculty equals the number of White faculty.¹⁰

The second indicator of *diversity* is the ratio of Latino enrollments to White enrollments for 2005 (**RLenrolltoWenroll**). Again, using the THECB accountability system, these data were used to create a ratio, where 1.0 indicates that Latino enrollments equaled that of White students; a ratio greater than 1.0 indicates that Latino enrollments are greater and a ratio of less than 1.0 indicates that White enrollments are greater.

Equity is measured by a student to faculty ratio (**RLstudfactoWstudfac**). Here, however, equity is measured as the ratio of Latino students to Latino Faculty compared to the ratio of White students to White faculty on each campus. A ratio of 1.0, for example, indicates that the Latino student-faculty ratio is equal to the White student-faculty ratio — an equitable distribution of faculty resources given salient demographic groups. Again, a ratio greater than 1.0 indicates there are more Latino students per Latino faculty member and a figure less than 1.0 indicates there are more White students per White faculty member.

To measure the institution's *affordability* for Latino families, a ratio of the average cost of residential undergraduate tuition to the state median income (\$32,011) for Latino families (2000 Census data) was constructed (**RaveTRUtoLFammedinc**). Average cost of residential undergraduate tuition was created by summing all the reported average undergraduate tuition and fees for 30 semester credit hours for FY2005 (THECB accountability system) and dividing by 34 institutions. Here, a 1.0 ratio value indicates that the average tuition and fees costs equaled the median family income for Latino families in Texas. The state average of tuition and fees in 2005 was 15% of the Latino median family income in the state.¹¹

Finally, the last criterion used was a measure for *access*. Here a ratio was created comparing the percent of Latinos enrolled at an institution to the percent of Latinos ages 18-25 in the institution's service area (represented here as county census data for all institutions except Texas Tech, Texas A&M, and the University of Texas-Austin) (**RpctLenrolltopctL1825**).

Given the state-wide stature of Texas Tech, Texas A&M, and the University of Texas-Austin, the statewide percent of Latinos ages 18-25 was used as measure of these institution's service area. While many institutions define much larger service areas relative to student age, this measure is just one indicator of university access available to Latino students. Here a ratio of 1.0 indicates perfect institutional access relative to Latinos aged 18-25 in the service area.

Finally, to develop an overall score for each institution, the value for each criterion was standardized into z-scores and scaled as an index (see Table 2). Because as the old saying goes, “you can’t compare apples and oranges,” the use of standardization converts measures into scores (here z-scores) that can then be compared. All z-scores have a mean of zero and a standard deviation of one, thus allowing comparisons.

In addition to z-scores, we employ t-test and analysis of variance difference in means tests as well as correlation analyses and two ordinary least squares (OLS) regressions to identify patterns across institutions. These additional analytic tools help us contextualize the kinds of institutions that are “closing the gaps.”

Table 2. Texas Institutions of Higher Education by Latino Scorecard Criteria*

INSTITUTION	RAW SCORE TOTAL	RATIO LATINO	RATIO	RATIO LATINO	RATIO	RATIO	RATIO	RATIO LATINO	DIFFERENCE
		ENROLLMENT TO WHITE ENROLL. (DIVERSITY)	# LATINO FACULTY TO # WHITE FACULTY (DIVERSITY)	LATINO STUDENT TO WHITE FACULTY (EQUITY)	AVERAGE TUITION TO LATINO MEDIAN FAMILY INCOME (AFFORDABILITY)	LATINO ENROLLMENT TO LATINOS 18-25 SERVICE AREA (ACCESS)	INSTRUCTIONAL COSTS PER FTE TO STATE AVE. COST PER FTE [\$5,715] (INST. COST)	STUDENT 6-YR GRAD RATE TO WHITE STUDENT 6-YR GRAD RATE (GRAD RATES)	NATIONAL AVE. 6-YR GRAD RATE (.52) TO INST. GRAD RATE (GRAD RATES)
Angelo State University	7.72	0.32	0.06	5.04	0.17	0.58	0.93	0.69	-0.07
Lamar University	6.27	0.1	0.03	3.79	0.13	0.36	0.81	1.19	-0.14
Midwestern State University	6.66	0.12	0.03	4.43	0.2	0.47	0.74	0.83	-0.16
Prairie View A&M University	8.1	0.63	0.11	5.8	0.13	0.17	0.73	0.85	-0.32
Sam Houston State University	5.51	0.15	0.05	3.2	0.1	0.72	0.55	0.78	-0.04
Stephen F. Austin State University	5.63	0.1	0.03	3.34	0.12	0.57	0.76	0.74	-0.03
Sul Ross University	13.3	1.03	0.11	9.39	0.15	0.93	0.9	1.03	-0.24
Tarleton State University	4.64	0.09	0.04	2.34	0.14	0.5	0.69	0.85	-0.01
Texas A&M International University	64.63	29.08	0.93	31.36	0.19	0.93	1.01	1.22	-0.09
Texas A&M University Commerce	10.17	0.1	0.01	7.74	0.16	0.5	0.77	0.98	-0.09
Texas A&M University Corpus Christi	6.93	0.69	0.19	3.56	0.15	0.57	0.82	0.96	-0.01
Texas A&M University Kingsville	14.39	2.44	0.27	8.96	0.21	0.89	0.96	0.85	-0.19
Texas A&M University		0.04	0.02	2.13	0.13	0.53	1.09		
Texarkana									
Texas A&M University	5.64	0.14	0.06	2.26	0.16	0.24	1.52	0.96	0.3
Texas A&M Galveston	4.94	0.12	0.05	2.32	0.13	0.37	1.03	0.89	0.03
Texas Southern University	13.7	1.88	0.18	10.32	0.15	0.1	0.79	0.63	-0.35
Texas State University San Marcos	5.89	0.28	0.09	3	0.15	0.71	0.71	0.86	0.09
Texas Tech University	4.69	0.14	0.07	2.09	0.23	0.26	0.99	0.78	0.13
Texas Woman’s University	6.36	0.19	0.05	4.05	0.16	0.26	0.91	0.78	-0.04
UT Pan Am	36.95	14.89	0.81	18.45	0.13	0.92	0.75	1.17	-0.17
UT Arlington	7.06	0.25	0.06	4.36	0.14	0.43	0.82	1.04	-0.04
UT Austin	7.18	0.25	0.07	3.49	0.2	0.34	1.66	0.9	0.27
UT Brownsville		8.93	0.84	10.69	0.13	0.94	2.27		
UT Dallas	4.88	0.15	0.07	2.12	0.15	0.31	1.17	0.79	0.12
UT El Paso	22.91	6.12	0.45	13.59	0.13	0.87	0.88	1.07	-0.2
UT San Antonio	8.53	1.14	0.24	4.67	0.14	0.72	0.73	1.03	-0.14
UT Tyler	5.39	0.07	0.03	2.65	0.16	0.26	0.84	1.18	0.2
UT Permian Basin	7.85	0.59	0.12	4.85	0.18	0.84	0.68	0.64	-0.05
UH Clear Lake		0.22	0.06	4.01	0.13	0.3	0.9		
UH Downtown	18.26	1.6	0.11	14.21	0.15	0.78	0.59	1.17	-0.35
UH Victoria		0.28	0.11	2.57	0.11	0.34	1.02		
University of Houston	9.09	0.48	0.08	5.94	0.14	0.39	0.95	1.15	-0.04
University of North Texas	5.43	0.15	0.05	3.12	0.13	0.23	0.87	0.87	0.01
West Texas A&M University	17.47	0.19	0.01	14.99	0.11	0.97	0.72	0.58	-0.1

*Raw Scores

Findings

An examination of the ratio of instructional costs (2005) to the state average instructional cost per student (\$5,715) as an indicator of **Resources** reveals statistically significant differences ($F\text{-Test}=3.55$; $\text{prob.}=.013$) by institutional type (see Table 3). Not overly surprising, Carnegie institutions classified as “Research Very High” have the largest average instructional costs per student, while “bachelor/diverse” and “masters large” had the smallest.

Latino to White student 6-year graduation rate was .92— approaching parity. But examining individual institutions shows disparities. Texas A&M International (Laredo), for example, had the highest effectiveness ratio with a score of 1.22, which means that at Laredo, Latino students graduate at a rate that is more than 20% higher than that for White students. In contrast, West Texas A&M University (Canyon) had the lowest Latino to White 6-year graduation ratio at .58, indicating that Latino students at West Texas graduate at 58 percent the rate of their White counterparts.

Table 3. Instructional Expenses 2005 Per Student Enroll Sources and Uses

	N	MEAN	STD. DEVIATION	MINIMUM	MAXIMUM
Bac/Diverse	2	\$4,627.50	1785.44	3365	5890
Masters Medium	7	\$6,139.71	3126.41	3861	12962
Master’s Large	14	\$4,457.29	647.01	3131	5820
Doctoral/Research University	3	\$5,017.00	569.53	4377	5468
Research High	6	\$5,412.67	706.79	4681	6680
Research Very High	2	\$9,091.00	545.89	8705	9477
Total	34	\$5,304.24	1871.34	3131	12962

$F=3.551$; $\text{prob.}=.013$

Instructional costs ranged by institution as well. Instructional costs per student ranged between \$3,131 at Sam Houston State to \$12,962 at the University of Texas-Brownsville.¹² Overall, slightly less than one-third (31.2%) of the institutions examined here had instructional costs ratios that exceeded the state average instructional costs. UT-Brownsville, for example, had the highest instructional cost ratio at 2.27, which means that this institution has two and one-quarter times more instructional costs than the state average. Texas Southern and UT-Permian Basin, on the other hand, had the lowest ratios at .63 and .64, respectively. This means that they have less than two-thirds the average instructional costs of the state average.

Examining the *effectiveness* indicators—ratio of 6-year graduation rates for Latino and White undergraduates student cohorts for 1999 (**RLsixgrtoWsixgr**) and the difference between an institution’s average 6-year graduation rate and the national average [**DgradratetoNATLrate (sixyr)**] — reveals wide disparities in graduation rates among Texas universities. Overall, the average

Of interest, the ratio of Latino 6-year graduation rates to White 6-year graduate rates (**RLsixgrtoWsixgr**) is moderately correlated with the ratio of Latino student enrollment to White student enrollment (**RLenrolltoWenroll**) (Pearson correlation=.44; $\text{prob.}=.01$) and the ratio of Latino enrollment to Latinos 18-25 in the service area (**RpctLenrolltopctL 1825**) (Pearson correlation=.47; $\text{prob.}=.005$). These associations suggest that institutions that have high 6-year graduation rates for Latino students relative to their White student counterparts are institutions with high Latino enrollments relative to White student enrollments and relative to Latinos between the ages of 18 and 25 in service area. These data indicate that those institutions situated in areas with “high” Latino populations are the ones leading the way in “closing the gaps” relative to the Latino population.

In terms of graduation rates relative to the national average—our second indicator of effectiveness [**Dgradrate to NATLrate (sixyr)**] — of the 30 institutions reporting data, the average difference was -.06., with slightly over a quarter (26.6%) of these institutions exceeding the national 6-year graduation average. Among the institutions examined here, the University of Texas-Austin had a 6-year graduation rate of .79, which exceeds the national average by 27 percentage points. In contrast, the University of Houston (Downtown and Texas Southern) report 6-year graduation rates (.17) that were 35 points below the national average. Perhaps not too surprisingly, the difference in institutional 6-year graduation rates relative to the national average is positive and strongly associated (Pearson correlation=.68; prob.=.000) with the ratio instructional cost per student FTE to state average instructional cost per student in 2005 (\$5,715). This strong association suggests that an institution's 6-year graduation rate increases as institutional instructional costs per FTE student also increases and vice versa. Generally, it is the research institutions which tend to have the higher instructional costs per student FTE, and the ones which recruit the highest performing students.

Institutional diversity criteria measures, again, included the ratio of the number of Latino faculty (broadly defined) compared to the number of White faculty (also broadly defined) (**RLfactoWfac**) and the ratio of Latino enrollment to White enrollment for 2005 (**RLenrolltoWenroll**). In terms of Latino faculty diversity, the institutions examined here had an average ratio of .16, which means that there is one Latino faculty member for every six White faculty members. A ratio of 1.0 or something approximating 1.0 would indicate parity. Only 9% — or three of the institutions examined here — had a Latino faculty to White faculty ratio that exceeded .50: these were Texas A&M International (Laredo) at .93, UT-Pan Am (.81) and UT-Brownsville (.84). In contrast, nearly three-quarters (73.5%) of the institutions examined here had a .11 ratio or less of Latino faculty to White faculty; in other words, one Latino faculty member for every nine or more White faculty.

Examining the ratio of Latino student enrollment to White student enrollment (**RLenrolltoWenroll**), the second indicator of diversity, finds an average ratio of 2.15. At face value, this ratio indicates that on average more Latinos are enrolled than White students. But here the ratio average is being driven by three outliers — Texas A&M International (with an average ratio of 29.1), UT-Pan Am (14.9 average), and UT-Brownsville (8.9 average). Indeed, only nine institutions in Texas had a ratio of 1.0 or greater and all these institutions were geographically found in South Texas (drawing a line from El Paso through San Antonio and ending in Houston and south). In contrast, Texas A&M (Texarkana) had the lowest ratio of Latino student enrollments to White student enrollments (.04). Clearly, Latino students in Texas are heavily concentrated at a handful of institutions.

Again, perhaps not overly surprising, the association between the ratio of Latino faculty to White faculty and the ratio of Latino enrollment and White student enrollment is very strong (Pearson correlation =.90; prob.=.000). In other words, the more Latino students are enrolled, the more Latino faculty one is likely to find at an institution and vice versa. Also moderately associated is the correlation between the ratio of Latino student enrollment and White student enrollment and the ratio of Latino enrollment to Latinos ages 18 to 25 in the service area (Pearson correlation=.47; prob.=.005). Yet, in contrast, 2005 institutional instructional costs per student (raw value, not ratio) is not significantly correlated with Latino student enrollments for the same year (Pearson correlation=.08; prob.=.655). Again, these findings suggest that institutions located in “high” Latino population areas are the ones contributing substantially to “closing the gaps?”

Equity is measured as ratio of students to faculty members. Here, however, it is measured as the ratio of Latino students to Latino Faculty to the ratio of White students to White faculty on each campus (**RLstudfactoWstudfac**). A ratio of 1.0, for example, indicates that the Latino student-faculty ratio is equal to the White student-faculty ratio — an equitable distribution of faculty resources given

salient demographic groups (Latino and White, here). The overall state average was 6.6, which indicates that there are nearly seven more Latino students per Latino faculty than there are White students to White faculty. Given the underrepresentation of Latinos in colleges and universities, this means that Latino faculty are even more underrepresented. For example, Texas Tech University had the smallest ratio at 2.07 among Texas universities examined, meaning that there are 2 times as many Latino students to Latino faculty than White students to White faculty. While this figure is closest to equity, overall the numbers of Latino students and Latino faculty members are small at Texas Tech. In contrast, Texas A&M International University (TAMIU) had the largest ratio at 31.4. This ratio indicates that there are 31 times as many Latino students to the number of Latino faculty than there are White students to White faculty. Since TAMIU is high on both Latino students and faculty, the fact remains that Latino faculty are underrepresented relative to Latino students. Of interest, the Latino 6-year graduation rate at Texas universities is negatively associated (Pearson correlation=-.384; prob=.04) with the ratio of Latino student to Latino faculty ratios at these institutions. More on this point is stated in the conclusion.

In terms of Texas universities' **affordability** for Latino families, a ratio of the average cost of residential undergraduate tuition to the state median income (\$32,011) for Latino families (2000 census data) (**RaveTRUtoLFammedinc**) was constructed. Texas Tech (ratio .23), Texas A&M-Kingsville (.21), and the University of Texas-Austin (.20) had the "highest" affordability ratios and were the least affordable for Latino families. In contrast, Sam Houston State had the lowest affordability ratio (.10) and was the most affordable for Latino families.

Finally, in terms of **access**, measured as a ratio of the percent Latinos enrolled in an institution to the percent of Latinos ages 18-25 in the institution's service area [represented here as county census data for all institutions except Texas Tech, Texas A&M, and the University of Texas-Austin, which were given the statewide percent of Latinos ages 18-25 (.43)]. Here a ratio of 1.0 indicates perfect institutional access (or parity) relative to Latinos ages 18-25 in the service area. Overall, Texas universities had .54 average accessibility scores relative to Latinos ages 18-25 in their service areas. West Texas A&M had the highest ratio of .97, while Texas Southern University — a traditional African American-serving institution — has the lowest ratio (.10), indicating that while Latinos reside in the service area they do not attend this institution in sizable numbers.

So how do the institutions fare relative to an overall cumulative score? To create an overall score for each institution, raw scores were converted into z-scores and scaled as an index. Again, standardization allows for a comparison of "apples and oranges" — the comparison of different indicators measured in different measurement units (dollars, students, faculty) — and converting them into "fruit" or standard scores, all with the same mean (0) and standard deviation (1). Scaling the z-score provides for a performance indicator along the eight indicators for each institution.

But simply using an additive score may exaggerate the overall rankings. To offset this issue, we assign a negative value to the equity (**RLstudfactoWstudfac**) and affordability (**RaveTRUtoLFammedinc**) indicators. Assigning the negative value to these indicators provides a weight that reflects the cultural and financial challenges faced by Latinos relative to these indicators at these institutions. So the higher the negative ratio of Latino student to Latino faculty relative to the ratio of White students to White faculty, the lower an institution's score on this indicator. The same negative weight assigned to the ratio of average tuition to Latino family median income also reflects the detriment of high tuition relative to Latino family median income at each institution.

Table 4 reveals the overall cumulative scores for each institution sorted by descending order. Figure 1 is a histogram of the scores. Because of missing data issues, the overall scores for four institutions could not be derived. Nonetheless, both tables and graph demonstrate a distribution of scores that approximates a normal distribution. Overall, Texas universities had $-.33$ average z-score, indicating a slight negative mean, and a median value of $.09$. Figure 1 demonstrates that the vast majority of Texas universities scored in the middle range of the distribution. Another way to cut the scores is to point out that 77% of all Texas universities examined here had a cumulative z-score of $.83$ or

Figure 1. Z-Score Distribution



INSTITUTION	TOTAL Z-SCORE
Texas A&M International University	6.17
UT Pan Am	5.54
Texas A&M University	2.93
UT El Paso	2.61
UT Austin	1.55
UT Tyler	1.27
UT San Antonio	1.00
Texas A&M University Corpus Christi	0.83
University of Houston	0.66
Texas A&M Galveston	0.62
Texas State University San Marcos	0.55
UT Dallas	0.25
Sam Houston State University	0.21
Lamar University	0.11
UT Arlington	0.11
Sul Russ University	0.08
Stephen F. Austin State University	-0.53
University of North Texas	-0.82
Tarleton State University	-0.93
Texas A&M University Kingsville	-1.67
West Texas A&M University	-2.08
UH Downtown	-2.10
Texas A&M University Commerce	-2.12
Angelo State University	-2.29
UT Permian Basin	-2.36
Texas Woman’s University	-2.57
Texas Tech University	-3.16
Prairie View A&M University	-3.73
Midwestern State University	-4.13
Texas Southern University	-5.94
Texas A&M University Texarkana	NA
UH Clear Lake	NA
UH Victoria	NA
UT Brownsville	NA

less. Only seven Texas institutions (Texas A&M International University, UT-Pan Am, Texas A&M University, UT-El Paso, UT-Austin, UT-Tyler, and UT-San Antonio) had a cumulative z-score of 1.0 or larger.

An analysis of variance (ANOVA) test provides an additional perspective of the institution’s overall score. Table 5, for example, reveals the overall scores for each institution sorted by Carnegie classification type and by descending order. Overall there were no statistically significant differences by type of institutions (ANOVA F-value 1.07; prob.=.40; table not presented here). Universities classified by the Carnegie Foundation as very high research institutions averaged a 2.2 performance z-score while, in contrast, doctoral/research universities had a negative 2.1 performance z-score. The majority of the Master’s large institutions had positive scores, while the majority of Master’s medium institutions had negative scores.

Examining the Latino 6-year graduation rates by Carnegie type institution, however, reveals that there are statistically significant differences in means across institutional types in the State (F=3.586; prob=.015; see Tables 6 and 7). “Research very high” institutions (Texas A&M and UT), for example, have average Latino 6-year graduation rates that exceed the state average by 34 points (average of all the state institutions). No other Carnegie classification institution type

Table 5. Institution's Z-Scores by Carnegie Classification Type

TYPE — CARNEGIE 2004	INSTITUTION	TOTAL Z-SCORE
BAC/DIVERSE	TEXAS A&M GALVESTON	0.62
BAC/DIVERSE	UH DOWNTOWN	-2.1
MASTER'S MEDIUM	TEXAS A&M INTERNATIONAL UNIVERSITY	6.17
MASTER'S MEDIUM	ANGELO STATE UNIVERSITY	-2.29
MASTER'S MEDIUM	UT PERMIAN BASIN	-2.36
MASTER'S MEDIUM	MIDWESTERN STATE UNIVERSITY	-4.13
MASTER'S MEDIUM	TEXAS SOUTHERN UNIVERSITY	-5.94
MASTER'S MEDIUM	TEXAS A&M UNIVERSITY TEXARKANA	NA
MASTER'S MEDIUM	UT BROWNSVILLE	NA
MASTER'S LARGE	UT PAN AM	5.54
MASTER'S LARGE	UT TYLER	1.27
MASTER'S LARGE	UT SAN ANTONIO	1.00
MASTER'S LARGE	TEXAS A&M UNIVERSITY CORPUS CHRISTI	0.83
MASTER'S LARGE	TEXAS STATE UNIVERSITY SAN MARCOS	0.55
MASTER'S LARGE	SAM HOUSTON STATE UNIVERSITY	0.21
MASTER'S LARGE	LAMAR UNIVERSITY	0.11
MASTER'S LARGE	SUL ROSS UNIVERSITY	0.08
MASTER'S LARGE	STEPHEN F. AUSTIN STATE UNIVERSITY	-0.53
MASTER'S LARGE	TARLETON STATE UNIVERSITY	-0.93
MASTER'S LARGE	WEST TEXAS A&M UNIVERSITY	-2.08
MASTER'S LARGE	PRAIRIE VIEW A&M UNIVERSITY	-3.73
MASTER'S LARGE	UH CLEAR LAKE	NA
MASTER'S LARGE	UH VICTORIA	NA
RESEARCH HIGH	UT EL PASO	2.61
RESEARCH HIGH	UNIVERSITY OF HOUSTON	0.66
RESEARCH HIGH	UT DALLAS	0.25
RESEARCH HIGH	UT ARLINGTON	0.11
RESEARCH HIGH	UNIVERSITY OF NORTH TEXAS	-0.82
RESEARCH HIGH	TEXAS TECH UNIVERSITY	-3.16
DOCTORAL RESEARCH	TEXAS A&M UNIVERSITY KINGSVILLE	-1.67
DOCTORAL RESEARCH	TEXAS A&M UNIVERSITY COMMERCE	-2.12
DOCTORAL RESEARCH	TEXAS WOMAN'S UNIVERSITY	-2.57
RESEARCH VERY HIGH	TEXAS A&M UNIVERSITY	2.93
RESEARCH VERY HIGH	UT AUSTIN	1.55

Table 6. Latino 6-Year Graduation Rates by Institution Type

	N	MEAN	STD. DEVIATION	MINIMUM	MAXIMUM
BAC/DIVERSE	2	.32	.254	.14	.50
MASTERS MEDIUM	7	.36	.053	.30	.44
MASTER'S LARGE	14	.44	.153	.26	.86
DOCTORAL/RESEARCH UNIVERSITY	3	.39	.051	.33	.43
RESEARCH HIGH	6	.47	.081	.31	.53
RESEARCH VERY HIGH	2	.76	.056	.72	.80
TOTAL	30	.44	.150	3131	12962

F=3.586; prob.=.015

Table 7. Diff. Average 6-Year National Grad Rate Minus Instit. Grad Rate (.52)

	N	MEAN	STD. DEVIATION	MINIMUM	MAXIMUM
BAC/DIVERSE	2	-.16	.27	-.35	.03
MASTERS MEDIUM	7	-.14	.12	-.35	-.05
MASTER'S LARGE	14	-.08	.14	-.32	.20
DOCTORAL/RESEARCH UNIVERSITY	3	-.11	.08	-.019	-.04
RESEARCH HIGH	6	.00	.12	-.20	.13
RESEARCH VERY HIGH	2	.29	.02	.27	.30
TOTAL	30	-.06	.16	-.35	.30

F=3.521; prob.=.016

Table 8. Ratio Latino Enrollment to Latinos 18-25 in Service Area (County)

	N	MEAN	STD. DEVIATION	MINIMUM	MAXIMUM
Bac/Diverse	2	0.58	0.29	0.37	0.78
Masters Medium	7	0.63	0.30	0.10	0.94
Master's Large	14	0.57	0.26	0.17	0.97
Doctoral/Research University	3	0.55	0.32	0.26	0.89
Research High	6	0.41	0.23	0.23	0.87
Research Very High	2	0.29	0.07	0.24	0.34
Total	34	0.54	0.27	0.10	0.97

F=.826; prob.=.542

exceeded a 50% 6-year graduation rate for Latinos. Table 7 demonstrates the same point this time using the national average 6-year graduation rate. Here, “research very high institutions” (A&M and UT) exceed the national average graduation rate by 29 points. No other Texas Carnegie classification institution exceeds the national graduation rate.

On the other hand, while the differences are not statistically significant, Latino participation is inversely related to Carnegie classification types. “Baccalaureate/Diverse” and “Master’s Medium” institutions in Texas, Carnegie’s lowest classification institutional types, for example, had the highest average ratios of Latino enrollment to Latinos 18-25 in their service area (ave.=.58 and .63, respectively (see Table 8)). In contrast, “research very high” had the lowest ratio of Latino enrollment to Latinos 18-25 in the service area (ave.=.41). In short, the higher an institution is located in the stratification system, the less is the representation of Latino students (and Latino faculty).

Table 9 reports difference in means t-tests by region for Latino 6-year graduation rates, institutional difference in 6-year graduation rates from the national average, Latino enrollment compared to Latinos 18-25 in service area, and instructional costs per student enrolled. Unfortunately, all institutions of higher education in Texas south of an imaginary line from El Paso through San Antonio and Houston collectively were statistically different and performed lower than their northern counterparts in all areas except Latino graduation rates and instructional costs (see Table 9). For example, in the difference in overall graduation rates from the national average, South Texas institutions were, on average, 15 percentage points below the national average, while North Texas institutions were 1% over the average (not much to boast about here). In terms of Latino enrollment compared to service area (Latinos 18-25), South Texas institutions had an average ratio of .64 and North Texas institutions an average of .46. Finally, only in instructional costs did South Texas institutions exceed North Texas institutions in average (\$5,536 v. \$5,121).¹³

Table 9. T-Tests by Region

	N	MEAN	STD. DEVIATION	MINIMUM	MAXIMUM
LATBAC + AT SAME/OTHER INSTITUTION (1999 COHORT)					
NORTH	18	0.48	0.16	0.26	0.86
SOUTH	12	0.38	0.11	0.14	0.53
<i>Total</i>	30	0.44	0.15	0.14	0.86
<i>N/S</i>					
DIFF AVE 6-YR NATIONAL GRAD RATE MINUS INSTIT GRAD RATE (.52)					
NORTH	18	0.01	0.16	-0.32	0.30
SOUTH	12	-0.15	0.12	-0.35	0.03
TOTAL	30	-0.06	0.16	-0.35	0.30
<i>Prob=.007</i>					
RATIO LATINO ENROLLMENT TO LATINOS 18-25 IN SERVICE AREA (COUNTY)					
NORTH	19	0.46	0.23	0.17	0.97
SOUTH	15	0.64	0.28	0.10	0.94
TOTAL	34	0.54	0.27	0.10	0.97
<i>Prob=.04</i>					
INSTRUCTIONAL EXPENSES 2005 PER STUDENT ENROLL SOURCES AND USES					
NORTH	19	\$5121.32	1636.78	3131.00	9477.00
SOUTH	15	\$5535.93	2169.58	3365.00	12962.00
TOTAL	34	\$5304.24	1871.34	3131.00	12962.00
<i>N/S</i>					
PCTLATENROLL					
NORTH	19	0.11	0.07	0.03	0.34
SOUTH	15	0.43	0.30	0.05	0.89
TOTAL	34	0.25	0.26	0.03	0.89
<i>Prob=.000</i>					

Two ordinary least squares linear regression equations were conducted using Latino 6-year graduation rates and percent Latino enrollment as dependent variables. In the first model, Latino 6-year graduation rates, 46% of the variation in these graduation rates can be explained (see Table 10). Of four variables examined, only instructional cost is statistically significant. In this model, if all the other variables were one (ratio of Latino enrollment to service area was perfect, the ratio of Latino enrollment to white enrollment was equal, we were looking at south Texas institutions of higher education and institutional per capita instructional cost was \$10,000, the predicted institutional Latino 6-year graduation would be 60%. With the exception of instructional costs, the above scenario approximates many South Texas institutions of higher education.

Similarly, when examining percent Latino enrollment, two variables — ratio of Latino enrollment to Latinos 18-25 in service area and region (south= 1) are statistically significant in explaining 71% of the variance in percent Latino enrollments (see Table 11). Here, if the ratio of the percent of Latinos enrolled is equal to the number of Latinos 18-25 in service (1.0), the average Latino 6-year graduation rate is assigned the national 6-year graduation rate of 52%, the region is North Texas, and the institutional instructional costs are the state average (\$5,403), and the average the predicted Latino enrollment is 46%. Under the same scenario but this time with South Texas institutions of higher education in the model, the predicted Latino enrollment rate increases by 22% to 67%.

Table 10. Latino 6-Year Grad Rate (1999 Cohort)

	B	BETA	T-VALUE	SIGNIFICANCE
RATIO Latino Enrollment to Latinos 18-25 in service area (county)	-0.157	-0.279	-1.62	0.118
RATIO Latino Enrollment to White Enrollment (2005)	0.002	66.00	0.408	0.687
Instructional Expenses Per Student Enrolled (2005)	0.000057	0.522	3.503	0.002
Region (dichotomy) South=1; NonSouth=0	-0.07	-0.217	1.4	0.174
Constant	0.257		2.303	0.03
Adj. R-SQED=.46				

Table 11. Percent Latino Enrollment

	B	BETA	T-VALUE	SIGNIFICANCE
RATIO Latino Enrollment to Latinos 18-25 in service area (county)	0.61	0.662	5.405	0
Region (dichotomy) South=1; NonSouth=0	0.212	0.43	3.787	0.001
Latino 6-Year Grad. Rate (1999 Cohort)	0.119	0.073	0.497	0.623
Instructional Expenses Per Student Enrolled (2005)	0.000028	0.154	1.163	0.256
Constant	-0.362		-2.57	0.016
Adj-R SQED =.71				

Conclusion

The Texas Higher Education Coordinating Board (THECB) adopted the *Closing the Gaps Higher Education Plan* in September, 2000. This paper has examined patterns among 34 public universities relative to two of the main goals in the Plan, participation, and graduation.

Two key findings by The National Center for Public Policy and Higher Education report on Texas contextualize the Latino Scorecard.

1. *Texas has made no notable progress in enrolling students in higher education. The gap in college participation among young adults (18 to 24) by race remains substantial. Currently, 36 out of 100 White young adults are enrolled in college, compared to 26 out of 100 young adults from other ethnic groups.*

a. Young adults (18 to 24) from high-income families are about twice as likely as those from low-income families to attend college in Texas.

2. *Texas has made no notable progress in making higher education affordable.*

a. The state's investment in need-based financial aid is very low and Texas does not offer low-priced college opportunities.

b. Over the past several years, the share of family income, even after financial aid, needed to pay for college expenses at public 4-year institutions has increased from 22% to 30%.

While we do not agree with the statement that Texas has not made notable progress in enrolling students, especially Latino students, more remains to be done.

So who's leading the pack in terms of Latino enrollment and graduation rates in Texas? The analyses presented suggests that regional and resourced institutions are leading the way in "closing the gaps" but in very different ways. Well-resourced institutions, principally the "flagship institutions," which are the Carnegie "very high research" classified schools of Texas A&M and UT-Austin, are doing relatively well overall among the eight measures of the Latino scorecard in relation to all the other institutions in the state. Texas A&M and UT do well in instructional costs ratios, Latino graduation rates and overall graduation rates relative to the national average. One should keep in mind, however, the "creaming" practices of these institutions — given the "10%" rule¹⁴ and high admission standards, for example, UT and A&M take the most talented students, and it is the most talented students who are most likely to be successful. The translation here is that if one is a young Latino/a, and one can get accepted (academically) into these two institutions, and can afford to attend (tuition, fee, boarding, etc.), one will most likely do well to go to A&M or UT. Of course, one will not see many Latinos relative to the number of White students, certainly not like at A&M (Laredo), and one will not see many Latino faculty members relative to White faculty, but one will do well academically.

On the other hand, higher education institutions like UT-Pan Am, UT-Laredo, UT-El Paso, UT-Tyler, and UT-San Antonio are above average among Latino scorecard indicators. Here, large Latino enrollments, large ratios of Latino to White faculty and, in some cases, high instructional costs per capita offset low 6-year Latino graduation rates and low overall graduation rates.

But analysis of variance and the regression analyses also indicate that the heavy lifting of Latino enrollment is coming principally from South Texas institutions and high Latino service areas. Ultimately, two-thirds of Texas institutions of higher education are only average or (worse) below average on addressing Latino criteria used for this scorecard. Again, the translation here is that if Latinos are considering entering a Texas institution of higher education and cannot get in to Texas or A&M, they should choose carefully relative to graduation rates, instructional costs, affordability, diversity, and access. Their experiences and probability for success will most certainly be impacted by these factors.

For Texas to make significant gains in the higher education of Latinos, it will have to address the inequities in instructional costs across institutions, especially those located in South Texas, and expand opportunities for higher education at the highest levels in South Texas given that Latinos are prone to stay close to their communities in the pursuit of higher education degrees. Finally, Texas must find ways by which to promote greater engagement of predominantly white institutions in the education of Latinos, including their transformation into diverse organizations. This will be especially important as the Latino population outside of South Texas continues to grow.

Endnotes

- 1 These figures are based on enrollments at public colleges and universities only. The THECB uses figures that include independent institutions, which are different. The Board, however, initially required only the public institutions to set targets for each of the Plan's goals. In 2002, it required independent institutions receiving Tuition Equalization Grants to begin reporting enrollments.
- 2 Although there are 35 state public universities our scorecard is based on data for 34 of them due to the difficulty in obtaining all the relevant figures for one of them.
- 3 The Pew Hispanic Center estimates the percent change to be 20.7% using the figures of 6,530,459 for the year 2000 and 7,882,254 for 2005. Thus, we have chosen to use the more conservative estimate to capture the changes in population.
- 4 The Participation Forecast report used the State Demographer's projection figures from 2004 which were based on a cohort-component technique that assumed that migration rates would be the same as those for the 2000 to 2003 period.
- 5 These figures are from a Special Report produced on Sept. 26, 2006 by THECB for one of the authors. They differ slightly from those reported in the 2006 Progress Report by the THECB.
- 6 See THECB, *Participation Forecast*, 2005.
- 7 Based on a Special Report produced on Sept. 26, 2006 by THECB. These figures are slightly different from those presented in the July 2006 Progress Report.
- 8 The 35th is not included due to insufficient available data.
- 9 These graduation rates include a combination of the percent of First Time Entering Undergraduates in the Fall 1999 — both White and Latino students — who received at least a baccalaureate at the same institution or at another institution.
- 10 We recognize that this broad inclusion of all faculty categories hides structured inequalities evident when examining tenure-track ranks.
- 11 Note that because the median income figures used were from 2000, this ratio is quite likely to be greater than the actual ratio in 2005 were the median income figures readily available for 2005.
- 12 This figure seems unusually high and may reflect the sum of instructional costs at UT-Brownsville (an upper division institution) and Texas Southmost College (a 2-year institution). This figure, however, is what is reported in official reports found at the THECB website.
- 13 Readers should keep in mind the upward influence of UT-Brownsville. If the figure for Brownsville is inaccurate, then we can expect this figure to go down substantially.
- 14 Under the "10%" rule, UT-Austin, for example, accepts all high school students in the State of Texas for admission regardless of the applicant's race or ethnicity.

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