# HISPANICS IN TEXAS HIGHER EDUCATION: AN ASSESSMENT OF THE STATE "CLOSING THE GAPS" INITIATIVE 

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#### Abstract

Demographic changes associated with growth of the Hispanic and black population in the U.S. state of Texas have led politicians and policymakers to recognize that academic success in their ethnic and racial minority populations is a key to future statewide economic success. These demographic transitions require proactive state intervention to assure the earning power and intellectual prowess of the next generation. This study assesses the degree to which the Texas "Closing the Gaps" initiative has addressed the disparities in higher education among the state's diverse populations.


Keywords: Hispanic, Black, Higher Education, Texas, United States of America, Educational Policy, State Politics, STEM, Affirmative Action, Workforce Development, Demographic Transition

## Introduction

Over the past fifty years, the United States government enacted a series of policies collectively known as "Affirmative Action." These policies, at the federal, state and local levels, are attempts to redress some of the effects of the country's formal discriminatory policies of years past, especially in the areas of education and employment. According the National Conference of State Legislatures (2014), "In institutions of higher education, affirmative action refers to admission policies that provide equal access to education for those groups that have been historically excluded or underrepresented, such as women and minorities." Although legal obstacles to full participation in most areas of public life were removed decades ago, participation and success in higher education remains a challenge among many racial and ethnic groups.

The United States is a pluralistic society still dominated by people of European heritage (whites). But the proportion of racial and ethnic minorities
continues to rise each year. Some racial and ethnic minority groups continue to be underrepresented in higher education. The largest of these populations are Hispanic (defined here as an ethnic group of people in the United States who are originally from or trace their heritage to Latin America or Spain) and black (a racial category of people who trace their lineage to Sub-Saharan Africa). According to the Kaiser Family Foundation (2015), the total population of the United States in 2013 was 314 million people, of which $62 \%$ are white, $17 \%$ are Hispanic, $12 \%$ are black, and $8 \%$ are classified as "other".

The U.S. state of Texas is a majority-minority state (racial and ethnic minorities combined make up a larger proportion of the state population than whites). The U.S. Census (2013) estimates that in Texas there are approximately 26.4 million people, of whom $44 \%$ identified as white, $38.3 \%$ as Hispanic, $11.6 \%$ as black, and $6.1 \%$ as "other". According to the Pew Research Center (2013), Texans who trace their roots to Latin America or Spain overwhelmingly prefer the term "Hispanic" over "Latino," and therefore "Hispanic" will be the term used to refer to this group in this research.

The issue of minority underrepresentation in higher education is particularly pronounced in majority-minority states like Texas and California. As a reference point, in 2000, Hispanics made up almost onethird of the Texas population, yet a large gap existed among racial/ethnic groups in both enrollment and graduation from the state's colleges and universities (Texas Higher Education Coordinating Board, "Closing the Gaps", 2000). Recognizing this underrepresentation, state officials created an initiative known as "Closing the Gaps" in the year 2000. The original intent of the plan was to increase participation and success in higher education among traditionally underrepresented groups by the year 2015. But what began as a forward-looking proactive response to economic and demographic realities was overtaken by political wrangling, budget cuts, and the nationwide economic downturn of 2008. Still, though falling short of its original goals, progress has been made. The quinceañera, or fifteenth birthday of Texas’ Closing the Gaps initiative -the point in time when the goals of the initiative should be met- has indeed arrived. This research seeks to interpret the assessment of the Closing the Gaps initiative, in addition to proscribing methods for the state to improve its higher educational system.

## I.

The focus of the Texas Closing the Gaps initiative has always been Hispanic and black student underrepresentation and underachievement in higher education. However, the methods of addressing this issue had to be modified due to a United States Supreme Court case decided in 1996. In that
case, entitled Hopwood v. State of Texas, the Supreme Court affirmed (let stand) the ruling of Judge Jerry E. Smith of the United States Court of Appeals for the Fifth Circuit, which concluded that using race or ethnicity to favor certain classes of minority student applicants at the University of Texas Law School was unconstitutional. Judge Smith ruled that the four white nonHispanic plaintiffs in the case, who had been passed over for admission in spite of the fact that their LSAT scores were better than thirty- six of the forty-three Hispanic and sixteen of eighteen black students admitted for the 1992 entering class was not in accordance with the Constitution of the United States (Sandel, 1996). The ban on racial or ethnic preferences was later extended when the top legal voice in the state, Texas Attorney General Dan Morales, issued an opinion in 1997 that "Hopwood’s restrictions would generally apply to all internal policies, including admissions, financial aid, scholarships, fellowships, recruitment and retention" (Morales, 1997). The net result of this Supreme Court decision and the declarations of the state attorney general was that higher education institutions had to seek out a different way (other than race or ethnicity) of increasing racial and ethnic minority participation.

Racial and ethnic diversity in college and university classrooms is viewed by many academics as germane to the learning process. Since universities are designed to provide a marketplace for ideas, innovation, and discussion, having classrooms with individuals of varied racial and ethnic backgrounds contributes to the learning process. Most universities, such as Texas A\&M University-Commerce, have included student diversity as part of their mission statement: Texas A\&M University-Commerce provides a personal, accessible, and affordable educational experience for a diverse community of learners (Texas A\&M University-Commerce, 2015). Furthermore, the university also lists "Diversity" first among seven Guiding Principles: "DIVERSITY- Foster a culture of inclusion whereby people of all backgrounds who live, learn, and work on campus feel welcome, and valued. Represent the diversity of the region we serve while respecting individual differences and similarities" (Texas A\&M UniversityCommerce, 2015).

Nevertheless, many people in Texas feared that the twin events of the Hopwood decision and Attorney General Morales’ declaration would reintroduce segregation in higher education. 2012 estimates from the U.S. Census Bureau indicate that only14\% of Hispanics have earned at least a Bachelor's (post-secondary) degree, compared to $30 \%$ for Non-Hispanic whites and $20 \%$ for blacks (U.S. Census Bureau, 2012). Even worse, the national graduation rate from high school (secondary education) in 2012 hovered near 73\% for Hispanics and 69\% for blacks, while 86\% of nonHispanic whites graduated from high school (Layton, 2014). In Texas, the
high school graduation rates for 2012 were better: Hispanics graduated at a rate of $84.3 \%$, while the black student graduation rate was 83.5 and whites graduated at a rate of 93\% (Texas Education Agency, 2013). When examining nationwide data on Hispanics, there is a marked difference in educational attainment based on their country of national origin. For example, among Hispanics of Argentinean origin, 40\% have earned at least a Bachelor's degree, a percentage that is not only significantly higher than all Hispanics, but also 11 percentage points higher than the overall U.S. population (Pew Research Center, 2013).

Hispanics who are specifically of Mexican origin are by far the largest minority group in Texas. According to the Pew Research Center (2011), among Texas Hispanics, 88\% are of Mexican origin, while Hispanics who trace their roots to any other Latin American country or Spain only make up $12 \%$ combined. For Mexican-American Texans, the numbers are even worse than for all Hispanic sub-national groups. Only 57\% of MexicanAmericans in Texas are high school graduates, and only 11\% are Bachelor’s degree recipients. Statistics like these produced the genesis for the Closing the Gaps initiative. Texas State Demographer Stephen Murdoch pointed out this demographic sinkhole in 1997 (Murdock, 1997).

Hispanics make up about $42 \%$ of total Texas population, and they have the highest fertility rate of any racial or ethnic group in the state. It became clear by the late 1990s that Texas would effectively have an underdeveloped economy within a few decades if the educational attainment of Hispanics did not dramatically increase. Stated more simply, the largest and fastest growing demographic group in Texas was not only the least educated, but also the least likely to pursue higher education at all (Murdock, 1997).

Murdock's demographic statistics got the attention of even the most disinterested parties in the state government. A Texas filled with unskilled laborers would be a Texas without a significant tax base. The Speaker of the Texas State House of Representatives at the time, Pete Laney, and thenLieutenant Governor Bob Bullock contracted Murdock’s group, the Center for Demographic and Socioeconomic Research and Education, to get a handle on what was happening (or rather, not happening) with regards to Hispanics student success in higher education. Their unsurprising conclusions were that Texas had to ensure a workforce with the skills and resources to "drive private-sector growth and fund public services" in the global economy of the twenty-first century (Murdock, 1997). Suddenly, it seemed, everyone was interested in the future of Hispanics and higher education. The graph below shows State demographer Steve Murdock’s data indicating that Texas would become a majority-minority state by 2010 and that Hispanic population would equal white population by 2020. This is the
graphic which alerted many white legislators to the fact that Hispanic educational achievement was a critical factor in the future economic success of the state (Murdock, 1997). In actuality, Texas became a majority-minority state five years before Murdock's projection, in 2005 (Fox News, 2005). Current estimates indicate that the population of Hispanics will not only surpass whites by 2020, but that Texas will become a Hispanic majority state by 2042 (Office of the State Demographer, 2014).


The legal decisions discussed previously remained as obstacles to addressing the vast disparity between whites and Hispanics in higher education. The courts had ruled that institutions could not show admissions preferences on the basis of race or ethnicity. In what can only be described as a "Texas Wink," the legislature sidestepped race and ethnicity to address the issues of underrepresentation in higher education by passing legislation to promote higher education for underrepresented classes without referencing race or ethnicity. The best known of these moves was Texas House Bill 588 in the $80^{\text {th }}$ Legislature (2007) the so-called "Top $10 \%$ Rule". The bill, written by Representative Irma Rangel (D-Kingsville), stipulated that any student who graduated in the Top $10 \%$ of their high school graduating class was automatically granted admission to either of the state's largest institutions: The University of Texas at Austin or Texas A\&M University (College Station).

Although Texas high schools are no longer officially segregated, the fact remains that Hispanic populations in Texas are. Therefore, high schools located in dominantly Hispanic areas would create de facto Top 10\% scholars; without any reference to race or ethnicity. The $80^{\text {th }}$ Legislature concomitantly created a "Top 10 Percent Scholarship" to encourage top performing students to actually follow through and enroll in post-secondary education (College For All Texans, 2014).

The effects of the Top 10\% Rule were dramatic, immediate, and particularly applicable to Hispanic students. By 2008, over four-fifths of all entering freshmen at the University of Texas at Austin were being admitted via the Top $10 \%$ rule. A survey of entering freshmen there showed that sixtyfive percent of non-Hispanic whites, blacks, and Asians took advantage of the automatic admission rule. The percentage for entering Hispanics students was over 78\% (Lavergne and Hargett, 2014). The rule was later extended to all thirty state institutions of higher education. The Top Ten Percent Rule had proved its mettle for getting Hispanic students into college, but success was another matter. As with high school, dropout rates for Hispanic students are the highest of any demographic group. A 2002 report sponsored by the Pew Hispanic Center highlighted the problem as follows:
"• Among18- to 24-year-olds, thirty-five percent of Latino [Hispanic] high school graduates are enrolled in college compared to forty-six percent of whites.

- Latinos are far more likely to be enrolled in two-year colleges than any other group. Forty percent for Latinos...twenty-five percent of white and black students.
- Latinos are more likely to be part-time students. Nearly eighty-five percent of white... college students are enrolled full-time compared to seventy-five percent of Latino(s).
- Latinos lag behind in the pursuit of graduate and professional degrees [i.e. Master’s in Business Administration, Doctor of Philosophy, Medical Doctor, etc.]... 3.8 percent of whites are enrolled in graduate school. Only 1.9 percent of similarly aged Latino high school graduates are pursuing postbaccalaureate studies" (Fry, 2002).

Collectively, these risk factors result in lower Hispanic retention and achievement rates. As with previous studies, the Pew Research Center (2012) finds that Hispanic students of Mexican origin fare worse than Hispanics of Cuban, Dominican, Puerto Rican, Colombian and the general Hispanic population when it comes to staying in post-secondary education and actually graduating (much less obtaining graduate or professional degrees). Again, as go the Hispanics of Mexican origin, so go the majority of Texas

Hispanics. Higher education directly correlates with higher income. In Texas, the annual income difference between an average holder of an Associate of Science (2-year degree) when compared to a Bachelor of Science (4-year degree) holder is over $\$ 17,000$ annually. The gap is even greater when comparing those who are only high school graduates, or worse yet, high school dropouts (Texas Higher Education Coordinating Board, "Texas Higher Education Facts-2006", 2006). It is not a stretch to suggest that the Closing the Gaps initiative was primarily fueled by state government's desire to ensure a well-paid (and most significantly, tax- paying) citizenry as opposed to the philosophical goal of decreasing or eliminating the underrepresentation of Hispanics and blacks in higher education. The "gap" being closed was in reality a series of gaps: in educational access, retention and persistence, graduation, graduate and professional (post-baccalaureate) education, and perhaps most importantly from the perspective of the state government, gaps in lifetime earning potential.

By April of 1999, the Texas Higher Education Coordinating Board (THECB), which is Texas’ overall governmental authority for colleges and universities, had been instructed by the legislature to prepare a new higher education plan for the state that would address the demographic realities highlighted by Murdock and others while simultaneously observing the stillactive Supreme Court ban on racial or ethnic preferences in higher education. That fall, a contract was let to the Rand Corporation to perform an efficiency analysis on the capacity and capabilities of all publically-funded institutions of higher education in the state. The final product, dubbed the Closing the Gaps Higher Education Plan, was adopted by the THECB in October 2000. Although promulgated by the THECB, implementation of the plan is closely aligned with the Texas Education Agency (TEA), the state agency which oversees primary and secondary education, and the State Board for Educator Certification (SBEC), which oversees the preparation, certification and conduct of public school educators ( Texas Higher Education Coordinating Board, "History of the Plan", 2000).

As with many Texas state mandates, Closing the Gaps was mandatory, metrically-driven, highly prescriptive, and importantly: unfunded. The plan adopted a fifteen year performance window and assumed a natural growth of 200,000 students in Texas higher education during that time period. In addition, the plan mandated an additional 300,000 students for a net total of a half-million new college and university students by 2015 (Perez, 2008). The total enrollment target was later revised to 700,000 students, reflecting the dramatic $20.6 \%$ increase in the state population between 2000-2010 (U.S. Census Bureau, 2011). For context, the increased enrollment alone is equal to thirteen times the size of the existing University of Texas at Austin student body. The specifics of the Closing the

Gaps plan consisted of four goals with each goal containing specific strategies:

1. Close the Gaps in Participation by adding 500,000 new students in state higher education institutions.
2. Close the Gaps in Success by increasing the number of degrees/certificates by fifty percent.
3. Close the Gaps in Excellence by increasing the number of nationallyrecognized programs.
4. Close the Gaps in Research by increasing federally-funded Science, Technology, Engineering, and Mathematics (STEM) programs by fifty percent to $\$ 1.3$ billion annually (Texas Higher Education Coordinating Board, "Closing the Gaps: The Texas Higher Education Plan", 2000).

Goal One strategies focus primarily on adopting college-preparatory programs in Kindergarten- $12^{\text {th }}$ grades (primary and secondary education in the United States) with concomitant teacher training and an emphasis on student and parent counseling on the value of higher education. It also included a promise of financial aid "for every student with financial need" (Texas Higher Education Coordinating Board, "Closing the Gaps: The Texas Higher Education Plan", 2000).

Goal Two strategies included financial incentives for colleges and universities to retain and graduate students (as opposed to simply having them enroll in -and pay for- classes). It also suggested a mandated college credit transfer protocol to ensure classes taken at one college or university in Texas could not be rejected at another state institution.

Goal Three strategies were likely the most vague. Each public college and university was required to identify at least one program of nationallyrecognized excellence; a difficult proposition for many public community colleges (two-year institutions where students either complete coursework for an Associate's degree and/or take required general education courses that lead to a Bachelor's degree -prior to transferring to a 4 -year institution).

Goal Four strategies involved internal incentives such as allowing universities to retain their federal overhead dollars (AKA indirect costs), establishing various consortia, and promoting a competitive program for emerging Research-1 institutions such as the University of Houston, UTArlington, and the University of North Texas.

The overall theme of the four Closing the Gaps goals was twofold: Goals One and Two were aimed at increasing minority participation and success by making higher education more accessible, affordable, and seamless. Goals Three and Four have no direct impact on ethnic or racial minority participation or success save the abstract (and somewhat indistinct) connection of increasing the brand appeal of their respective institutions.

Goal One was addressed quickly and eagerly with several initiatives. The TEA and SBEC both began rewriting STEM curricula. The THECB began handing out numerous grants supporting teacher preparation. The Dual Credit initiative (whereby high school students could take courses at their local community college that would count for both high school and college/university credit) was implemented as a part of the Texas Education Code §28.009. Dual Credit allowed high school students to earn up to two years of college credit (State of Texas Education Code, 2014). Furthermore, the cost of dual credit courses may not even require out-of-pocket expenses, as some districts pay for their students to take dual credit courses (Texas Higher Education Coordinating Board, "Dual Credit-Frequently Asked Questions", 2014). Also, a tuition rebate program was implemented statewide which allowed students completing their degrees at Texas public universities in four years or less to qualify for a $\$ 1,000$ cash back award (College for All Texans, 2014). A statewide common core curriculum for higher education was also implemented. Under this plan, any student who took an official general education course at any institution was guaranteed that credit for that course would be transferable to any other institution in the state (Texas Higher Education Coordinating Board, "The Texas General Education Core WebCenter", 2014). In addition, institutions were incentivized by having part of their state funding formula tied to retention and completion rates. Taken as a package, the changes were cause for much initial optimism that higher education in Texas was about to become much more inclusive of formerly underrepresented populations.

Additional incentives were added for Goals Three and Four. The THECB established an Advanced Research Program and the Texas Legislature followed up with over $\$ 400$ million in appropriations to support a Texas Emerging Technology Fund. An additional $\$ 200$ million was earmarked for UT-Austin, Texas A\&M (College Station), The University of Houston, and Texas Tech University to support a Competitive Knowledge Fund which incentivizes research activities (Texas Higher Education Coordinating Board, "Overview: Research Funding in Texas," 2014).

With such a rosy buildup, it would be difficult to imagine the Closing the Gaps initiative not succeeding. In general, this has turned out to be the case, but not without substantial hiccups and unintended consequences. Official results, curiously, have come from the THECB itself. So the state agency charged with making the changes is also responsible for assessing their own performance, as opposed to having an independent body review their progress. Data reported by individual institutions varies wildly.

Results for Goal One (headcount participation of Hispanic students) through 2013, show a highly bimodal distribution with most smaller regional institutions achieving their state-mandated goals while the larger institutions
tended to be overwhelmed by increases in the white population. None of the thirty-eight reporting institutions registered negative enrollment values, a reflection of the fact that overall population among all racial and ethnic groups is rapidly rising in Texas. Likewise, every state-funded institution in Texas reported increased enrollments in Hispanic, white and black students. The state "flagship" institutions (University of Texas-Austin and Texas A\&M University-College Station) both reported the biggest overall enrollment gains, but floundered on diversity. UT-Austin reached only 20\% of their state mandated goal for Hispanic enrollment and $5 \%$ of their statemandated goal for black students. A\&M-College Station, fared even worse, reaching just $18 \%$ and $3 \%$ of their state-mandated goals for Hispanic and black students, respectively. This failure to recruit and enroll minority students was cited in a July 2014 U.S. 5th Circuit Court of Appeals decision (Fisher v. University of Texas at Austin), allowing UT-Austin to resume using race as an admissions factor. Nevertheless, by 2012 white student enrollments at UT-Austin dropped below $50 \%$ for the first time in the institutions' history. Hispanic enrollment at UT-Austin did reach $21.7 \%$ in 2012, this achievement still demonstrated significant underrepresentation of the $38.4 \%$ Hispanics population in Texas (HuffPost College, 2014). The Table below shows performance headcount figures for the five best and five worst performing institutions (Texas Higher Education Coordinating Board, "Institutional Rankings for Selected Accountability Measures", 2014).

Best Performing institutions for Hispanic headcount enrollment

| Rank | \% of THECB Goal Reached | Institution |
| :---: | :---: | :---: |
| 1 | $93 \%$ | Texas A\&M International University |
| 2 | $88 \%$ | University of Texas-Pan American |
| 3 | $87 \%$ | University of Texas-Brownville |
| 4 | $87 \%$ | Sul Ross State University-Rio Grande |
| 5 | $79 \%$ | University of Texas-El Paso |


| Rank | Worst Performing institutions for Hispanic headcount enrollment <br> \% of THECB Goal Reached | Institution |
| ---: | :---: | :---: |
| 1 | $6 \%$ | Prairie View A\&M University |
| 2 | $7 \%$ | Texas Southern University |
| 3 | $10 \%$ | Texas A\&M University-Texarkana |
| 4 | $12 \%$ | Lamar University |
| 5 | $12 \%$ | University of Texas-Dallas |

Goal One: Participation. Best and Worst performing institutions for
Hispanic headcount enrollment for the period 2000-2013 (Texas Higher Education Coordinating Board, "Closing the Gaps Progress Reports", 2014).
Results shown in the Table above are consistent with virtually all demographic data on Hispanic students. Generally lower-income levels, coupled with strong family pressure result in students who remain close to
home to attend college. In this case, all Top 5 performers are in borderlands regions with majority-minority Hispanic populations. The Bottom 5 worst performing institutions are all located on the opposite side of the state from the international border.

Reporting trends for Goal Two (Success) are not detailed by race or ethnicity. Nevertheless, they show a dramatically different story reinforcing the observation that getting a student in the door does not automatically result in keeping them on campus long enough to earn a degree. On the measurement of four-year graduation rate, the best performers (in rank order) are Texas A\&M University (College Station), UT-Austin, UT-Dallas, Texas Tech, and UNT. For the five-year graduation rate the rankings are identical except that Texas A\&M University- Galveston replaces UNT in the \#5 position. (HuffPost College, 2014).

Four-year and five-year graduation rates for the Top 5 Texas Hispanic-Serving Institutions* (HSIs) are listed in the table below.


All of these graduation rates should be taken in the context of what constitutes normal for Texas university students. Even the top ranked schools only had four-year graduation rates in the $50 \%$ range. Therefore a \#21 ranking (e.g. Texas A\&M University-International) translates to an actual graduation rate of only $21 \%$ (i.e., four out of five entering freshmen do not graduate after four years). The University of Texas-El Paso, often cited as a model Hispanic-Serving Institution (HSI), only managed a four-year graduation rate of $13 \%$. Restated, the most successful schools at recruiting Hispanic students in Texas are graduating those students at a rate less than half that of the top performing non-HSIs.

Overall, the Closing the Gaps performance on Goal One (Participation) will likely be judged as successful. As the 2015 goal of adding 700,000 new students arrives, the plan is on track (see the Figure below). In terms of Total Enrollment targets, as of 2013 there were 575,581 more students than was the case in 2000, for a total headcount of $1,614,646$, but this is largely due to extraordinary increases in enrollments by white and
black non-Hispanic students (Texas Higher Education Coordinating Board, "Closing the Gaps Dashboard", 2014). Although no data exists to explain the 2009 downturn in white student headcount, many analysts have pointed to the nationwide economic downturn as the cause (HuffPost College, 2014).

The 2013 target for white college student enrollment in 2013 ended up about 40,000 students below target. Black student enrollment nearly doubled in the 13 years studied, and ended up more than 58,000 students above the state-mandated target. Finally, although there were more than 284,892 net new Hispanic students in Texas higher education as of 2013, Hispanic enrollments fell short of their state-mandated target by nearly 73,000 students.


Headcount enrollment totals for Closing the Gaps, 2000-2013 (Texas Higher Education Coordinating Board, "Institutional Rankings for Selected Accountability Measures", 2014) Closing the Gaps performance on Goal Two (Success) will also likely be judged as successful. Degrees awarded, the so-called BAC (Bachelor’s, Associate's, and Certificates) statistic, are well above projections (surplus $n=48,423$ on a total of 242,823 BACs awarded in 2013. In 2013, black BACs are about 7,000 above the projected goal. Hispanic BAC awards are well over 16,000 above projections. But total STEM BACs are over 7,000 below their projected goal level (Texas Higher Education Coordinating Board, "Institutional Rankings for Selected Accountability Measures", 2014).

These data point out several obvious conclusions: (1) Hispanic headcount enrollment, even though it is 72,974 below projected goal levels,
is generating a disproportionately large number of graduates, (2) Black headcount enrollment, even though it is 58,379 above projected goal levels, is generating proportionately fewer graduates, and (3) The surplus 2013 graduation rate of 48,423 is only $51 \%$ non-Hispanic white. Like the overall Texas population, the 16,486 surplus Hispanic graduates and 7,187 surplus black graduates are, in fact, Closing the Gaps. But, (4) The gains are not occurring uniformly in the all-critical STEM disciplines. All of which points to (5) Most of the students who enrolled since 2000 are pursuing non-STEM degrees, and therefore there is still a major gap - but now it is a STEM Gap.

Earning a degree in the arts or humanities certainly counts as a college education, but these are, on average, the lowest paying occupational fields. This has led some scholars to question if higher education is truly serving its Hispanic population by not encouraging study in STEM disciplines (Lederman, 2010). On the one hand, it is a positive sign that more black and Hispanic Texans are pursuing post-secondary degrees, however, if the occupations they are preparing for are among the lower paying fields, then the overall economic impact to the state is not as significant as it could potentially be.

A National Science Foundation-funded study at the University of Southern California’s Center for Urban Education examined high-achieving HSIs in six U.S. states (including Texas) where the STEM GAP did not exist. That study found commonalities among the successful institutions, including "special programs, curricular innovations, smart administrative policies, culturally responsive pedagogy, focused counseling and advising, outreach to community colleges and Latino communities, (and) Latinotargeted scholarships" (Dowd, Malcom, and Bensimon, 2009). The top Texas exemplars cited in the study are all located in areas with significant Hispanic populations: UT-El Paso, UT-San Antonio, UT-Pan American, Texas A\&M University-Kingsville, and UT-Brownsville. All award more than 100 STEM degrees annually to Hispanic students, and Hispanic students make up between $42 \%$ and $89 \%$ of those institutions' STEM majors (Dowd, Malcom, and Bensimon, 2009).

As good as the overall experience with Closing the Gaps has turned out, one cannot help but wonder what the results would have been like in the absence of several overtly anti-student success initiatives which occurred during the period Closing the Gaps was implemented. Chief among these was the Texas Legislature's decision in 2003 to reduce funding to higher education by $11 \%$ and simultaneously deregulate tuition rates at state schools. Prior to 2003, tuition rates were set by the legislature and, with few exceptions, were the same at all state institutions. Texas House Bill 3015 was passed in 2003 allowing each institution to charge whatever they saw fit (Texas Higher Education Coordinating Board, "Overview: Tuition

Reregulation", 2014). By 2013 average tuition rates had jumped by 55\% statewide; a definite impact on blacks, Hispanics, and other low-earning demographic groups in the state (Cardona, 2013). It is true that there are many more financial aid programs today than there were in 2000, but many Hispanic first-generation college students are unaware of such programs (Crisp and Nora, 2012). Texas legislators were (and are) aware of the impact of these increased costs, but over the past decade there has been a pronounced increase in the philosophy that higher education is a personal good, not a societal good. This approach has been used to justify rising costs for higher education on the theory that those who benefit (mostly nonHispanic white students) will simply pay the extra expenses. See the chart published in The Dallas Morning News below.


In addition to tuition increases, students have also been faced with a series of success- unfriendly initiatives including:

- The 5-W Rule: Restricts students to a maximum of five withdrawals from classes over the course of their academic work, which disproportionately penalizes students less well-prepared (often black and Hispanic students) for college-level work.
- The 120 Hour Rule: Restricts virtually all degree programs to the 120 hour academic minimum stipulated by the Southern Association of Colleges and Schools (SACS). Texas students thus get the lowest possible amount of higher education coursework.
- In-state residents at Texas state institutions who change majors (a common occurrence) may be forced to pay out-of- state tuition rates on any hours in excess of 120 that they must take to graduate.
- Differential Tuition: Allows institutions to create and add surcharges onto tuition on coursework deemed as leading to a well-paying or highdemand career (e.g. engineering, nursing).
- Unintended Consequences of the Top 10\% Rule: Students who have made the decision to attend college and who plan on invoking the Top $10 \%$ Rule have discovered that there is strong incentive not to take an academically rigorous high school program of study; precisely the sort of program that would ensure success in higher education. (The strategy would be to take easy or less rigorous courses in high school, thus ensuring a higher class ranking.)
- Lack of engagement incentives. Numerous studies (e.g. Perez, 2008) have found strong correlations between student academic success in higher education and early exposure to university faculty while still in high school. Yet there are no formal incentives to encourage either primary and secondary teachers or University faculty to reach across the ever- widening gap between secondary and university learning.
- Inappropriate Standardized Testing: The TEA continues to promote standardized testing of what they perceive to be a high school-level college- readiness curriculum. In spite of this, many state colleges and universities routinely report half or more of their incoming freshmen go directly into remediation for English and Mathematics.
- Inattention to First-Generation College Student Needs: The Hispanic students targeted by Closing the Gaps are dominantly first-generation college students with little access to advice on actions as simple as how to apply to college or fill out a scholarship application (Perez, 2008).

The single most-pressing question as we arrive at the fifteenth and penultimate year of the Closing the Gaps initiative is "Did it make any difference?" This question is particularly cogent for Hispanic students who
are more likely to begin their higher education experiences in community college settings. While university-level retention rates hover around $50 \%$ to $70 \%$, community college retention rates rarely break 25\%. The Dallas County Community College District reports a graduation rate of $8 \%$ for their two-year Associate's degrees. The tripartite of low retention, low income, and low expectations are particularly acute in such settings (Perez, 2008). In addition to these external factors, there is evidence that there is an inverse correlation between a student's family size and their success in higher education. Larger families, statistically more common in Hispanic households, must spread finite resources across a larger number of children (Perez, 2008).

In the midst of these multivariate compounding factors, (Perez, 2008) attempted to answer the simple question of "Has it made a difference?" In a sample from four urban community colleges, she asked three questions: (1) Does your institution have Closing the Gaps programs for recruitment and retention? (2) Does your institution now enroll more minority students as a result of these programs? And (3) Does your institution now retain more Hispanics as a result of these programs? Respondents from all four institutions answered the first question affirmatively describing programs which included collaboration with high schools, making direct faculty-tostudent contacts in high school, and using minority faculty to recruit at high schools.

Respondents from all four institutions also answered the second question affirmatively-they were actually enrolling more minority students A lot more. For the period from 2000 to 2006, Perez reports minority student headcount increases of $23 \%, 27 \%, 17 \%$, and $23 \%$ for the four institutions she examined. The third question had the most surprising results with respondents from all four institutions reporting Fall to Spring retention rates for Hispanic students in the $60 \%$ to $73 \%$ range. While initially stunning, it should be remembered that many of these freshmen are dual credit high school students with fewer options to drop out or skip a term.

## Conclusion

Closing the Gaps was initially conceived as a blanket solution to a statewide demographic transition. Half of it focused primarily on Hispanic and black students; a second half dealt almost exclusively with institutional prestige. The Hispanic and black half of the initiative, Goals One and Two must be judged a success in the limited sense of increasing enrollment in higher education among all students, particularly black students, who far surpassed their target enrollment goals.

The results for the success part of the goal are more ambiguous. For doctoral degrees, the final target goals were reached in 2011 and are now
well above targeted rates. Hispanic graduate degrees rose the fastest, and as of 2013 over $9.2 \%$ of doctorates at state universities were earned by Hispanic students, while $5.9 \%$ of doctorate degrees were earned by black students (Closing the Gaps, 2014). Some federal programs, such as the Ronald E. McNair Post-Baccalaureate Achievement Program exist to help prepare low-income, first-generation, and underrepresented minority students to go on to graduate school and be successful. However, with limited resources, these programs can only serve a fraction of the students who would otherwise be eligible for their services. Just as there is a correlation between earning a bachelor's degree and income, those with graduate and professional degrees have even higher earnings, on average. The fact that the targets set forth in Closing the Gaps were met is great news, but the rate of doctoral degrees earned by Hispanics and black students still pales in comparison to the doctorates earned by white students, and continues to be disproportionate to the percent of blacks and Hispanics in the state. It should be noted that many students who attend graduate school in Texas are out-of-state students, and therefore black and Hispanic Texans are still dramatically underrepresented in many programs.

Despite some limited success at the graduate level, Hispanic secondary and post-secondary students still drop out at an alarmingly high rate. This in turn has a ripple effect for higher education, since a high school diploma or its equivalent is necessary to go on to college, and a bachelor's degree is generally necessary to go on to graduate study. But Hispanic students who do persist are more likely than their black or white counterparts to graduate.

Social issues unique to Hispanic students were generally ignored by the Closing the Gaps strategies. One common issue is lack of buy-in among Hispanic parents to the idea that their child should: 1. Go to college instead of working; and/or 2. Attend a college or university that is far away from home. These issues overlap with the fact that most Hispanic college students (or potential college students) are first-generation. But there is also a potential language-gap in communication between institutions of higher education and Hispanic parents of potential first-generation students. The "foreign" nature of academic language (e.g. applications, scholarships, grade-point-averages, etc.) is often perceived to be intimidating to parents without a personal grounding in post-secondary education.

As for the location of colleges attended by Hispanic students, it is not a surprise that the data show that Hispanic Serving Institutions are located in predominantly Hispanic-populated regions. There are several factors at play here: First, is the fact that Hispanic college students may not hail from families who can afford to pay for on-campus housing. Second is a pronounced lack of understanding of the Financial Aid application process
(and the potential implications of irregular immigration statuses upon that. Third, is "familism," or the cultural nuance of Hispanic parents particularly wanting to keep their children (particularly their daughters) close to home. In many Latin American countries it is a common cultural practice for children to live with their parents until they get married, and among immigrant Hispanics and their offspring, there is evidence of this practice being carried over to the United States, adding another challenge to Hispanics in higher education (see Desmond and Turley, 2009).

Perhaps most troubling of all, however, is the continued underrepresentation of Texas Hispanic students in STEM disciplines. A primary impetus of the Closing the Gaps initiative was to ensure a globally competitive Texas workforce for the future. That workforce will be dominantly Hispanic. It follows that the successor to Closing the Gaps (if there is one) must address the STEM Gap which remains.

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