

Students at HSIs in Texas and New Mexico: An In-Depth Profile of Their Backgrounds, Commitments, and Perspectives

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Abstract: Hispanic-Serving Institutions (HSI) educate nearly two-thirds of the Hispanic/Latinx students who attend college. Yet little is known about the student populations they serve. Findings from two NSF-funded surveys completed with students at 14 HSIs in Texas and New Mexico in 2018 and four HSIs in TX in 2019 are presented. The combined sample was 1,293 students. A description of the backgrounds, commitments, experiences, and preferences of students at HSIs and differences found between responses from Hispanic/Latinx and non-Hispanic students are discussed. Primary topic areas are demographics, first-generation student standing, cultural orientation, primary language and fluency in Spanish, family and work commitments, relationship status, family support, living arrangements, means of financing college, course load, STEM identity, annual income of household of origin and of personal household, locus of control orientation, familism, and experience in college. The result is a thorough and up-to-date profile of the HSI student population in TX and NM. Statistical analysis revealed multiple significant differences between Hispanic/Latinx and non-Hispanic students attending the HSIs and the presence of several significant predictors for forms of activity and patterns of commitment. The findings are immediately applicable to process, program, student support, and instructional planning, implementation, and evaluation for over 120 HSIs in the region and, by extension, to hundreds more across the United States.

Keywords: Hispanic-serving institutions, Hispanic/Latinx, first-generation college students, culture

Introduction

The material presented provides an in-depth and nuanced perspective of the student population at Hispanic-Serving Institutions in New Mexico and Texas. Comparison of the characteristics of the sample and population found both samples to be representative and to be of sufficient size for a minimum of a 95% confidence level with a 5% margin of error. In addition, the 2018 and 2019 samples align well with each other. These factors make the results directly applicable to the 120 HSIs in New Mexico and Texas in the 2018-2019 school year (HACU, 2019) and generalizable to many others. A summary and brief discussion of the findings with

substantial evidence appears below grouped as topics related to demographics and general characteristics, acculturative stress, and culture-based understandings.

Demographics and General Characteristics

The ratio of females to males at the HSIs in the sample was approximately 60% to 40%, just slightly above the 2017 national average for females in college and below it for males (NCES, n.d.). The students in the samples were predominantly single and of traditional college age. Hispanic/Latinx students made up approximately 35% of the student populations of the HSIs while non-Hispanics accounted for approximately 65%. The two largest racial groups were White/European Americans and Hispanic/Latinx individuals approximately 53% and 35% respectively. Approximately 63% of the students lived off campus. Less than 20% of all respondents indicated they had English as their second language, but that figure was 36.8% for persons identifying as Hispanic and 4.8% for non-Hispanics.

Over 50% of the respondents were first-generation college students but Hispanics were significantly more likely to be the first in their family in college, 65.4% to 39.4% for non-Hispanics. Approximately 70% of the students were actively employed paralleling nationally reported figures (Carnevale, Smith, Melton & Price, 2015) with off campus work significantly more likely than on campus employment. These descriptive patterns will not surprise persons familiar with US higher education and the NM/TX region but having more than one-third of Hispanic/Latinx students note ESL standing as well as 4.8% of non-Hispanics has implications for programming and interaction with students. ESL support programming at colleges and universities in the region should not anticipate an entirely Hispanic population and, given the reported volume of ESL students, HSI personnel in all departments should be trained in effective interaction with persons whose first language is not English. This is also a concern in advising and mentoring assignments as students at the HSIs who identified strongly with Hispanic culture or had ESL standing noted significantly different preferences for mentors than their Hispanic/Latinx peers without these characteristics (Preuss et al., 2020b). In addition, making faculty and staff aware that 70% or more of their students are likely to be actively employed and encouraging practices that increase flexibility in instruction to facilitate success in study and work is recommended.

Among the students at the HSIs, the two most prevalent and strongly held ethnic identities were Hispanic/Latinx and White/European American. Yet, ethnicity did not prove significant in consideration of the number of years of college completed. Age was the only significant predictor with each additional year accounting for 0.141 years of college completed. Older students were also taking significantly fewer hours with every additional year accounting for a decrease of 0.21 credit hours. There are a number of possible explanations for this but it is likely related to the higher percentage of married and cohabiting students in the non-traditional student group, married students reporting significantly more hours of work than single students, older students working significantly more hours than younger students (an additional 0.618 hour for each year of age), as well as every non-traditional age student who reported having a child in their home also reporting being a caregiver for that child.

Findings that were statistically significant based on ethnicity highlighted patterns that have been associated with decreased persistence and success in college as being present for many of the Hispanic/Latinx students. Hispanic/Latinx students were far more likely to report having English as a second language. They were significantly more likely to take fewer hours with Hispanic/Latinx identity accounting for .937 fewer credit hours taken per semester. Hispanic/Latinx individuals were much more likely to be first-generation college students and the first in their families to complete a four-year degree. They were more likely to rely on Pell Grants and work study positions and come from households with lower incomes. There also appeared to be a connection between work commitment and the economic conditions of the state in which the students attended college.

Students in New Mexico reported working more hours per week than their counterparts in Texas (Ramos et al., 2020) and NM has more persons at or below poverty level than Texas (Moskowitz, 2019; Center for American Progress, 2020), had the highest child poverty rate in the nation in 2017 (New Mexico Voices for Children, 2017), has more Hispanics living in poverty than non-Hispanics (Moskowitz, 2019), and has had the highest rural poverty rate in the nation (Sapin, 2016). When the areas in which significant differences were found along ethnic lines are combined they form a substantial set of experiential, participation, and economic challenges that

should encourage faculty, staff, and administrators at HSIs in the region to establish or reinforce institutional efforts to employ best practices for aiding minority, first-generation, and low-income college students.

Several traditional patterns were found at the HSIs when considering means of paying for college like females, married persons, and non-traditional aged students being significantly more likely to receive assistance from their spouse or partner in funding study and single and traditional aged students being significantly more likely to receive assistance from their families. These analyses also confirmed that Hispanics/Latinx students were significantly more likely to employ Pell Grants and work study even when comparison of Latinas to non-Hispanic females and Latinos to non-Hispanic males were completed. That form of analysis also revealed that male Hispanics were more likely than male non-Hispanics to be working to pay for college. These findings aligned with the reports of income for household of origin and personal household. Hispanics and ESL students reported significantly lower income for their household of origin (persons with ESL standing were predominantly Hispanic/Latinx individuals in the sample). Hispanic students also reported significantly less personal income. This should also be a substantial concern for college administrators and personnel. When more than one of every two prospective students is more likely to come from an ESL background, be a first-generation college student, and come from a household of origin and personal household with lower income than their non-Hispanic peers at the same HSI, radically different patterns of reaching, informing, interacting with, and aiding students will be required.

Findings for identification as a STEM student ran counter to employment trends in terms of ethnicity but aligned for gender. There was no significant difference by ethnicity for identification as a STEM student even though Hispanic/Latinx individuals are underrepresented in those fields (Arellano, Jaime-Acuna, Graeve & Madsen, 2018; Pew Research Center, 2019). There was, though, a significant difference based on gender with females less likely than males to identify as a STEM student which does align with national employment patterns (Pew Research Center, 2019). While the first result may be seen as an encouraging finding, the pronounced need for workers in all STEM fields and having nearly two-thirds of Hispanic/Latinx college students educated at HSIs makes continuous and vigorous efforts in recruiting and training STEM graduates at HSIs essential especially since few HSIs offer STEM support programming targeted to serve Hispanic/Latinx students (Preuss et al., 2019).

Acculturative Stress

The Hispanic/Latinx students at the HSIs in New Mexico and Texas indicated with significantly greater strength than their non-Hispanic peers that every category of institutional representative listed on the survey did not understand their culture, including those with instructional responsibility. This is surprising even when one realizes that most of the persons working at HSIs in the region are not Hispanic (Preuss et al., 2019). The same students were also found to be statistically more likely to alter “their behavior when interacting with faculty and staff” (Preuss et al., 2020a, p. 222) and fully 23.0% of the 2018 respondents from 14 different HSIs agreed “Hispanics feel like outsiders in college.” These findings indicate far more potential for acculturative stress for Hispanic/Latinx students at HSIs in NM and TX than might be anticipated. This is a substantial concern because of the large number of Hispanic/Latinx students who attend HSIs and because a welcoming environment has been recognized for decades to be a key component in student retention and academic success (Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996; Tinto, 1987).

It is a clear example of the “common disconnection between institutional diversity mission and the lived experience of students on campus” (Chun & Evans, 2016, p. 9) and represents a call for immediate action on the part of the administrators, faculty, and staff of HSIs across the region. It will be necessary to move beyond “the assumption that the attainment of a diverse student body automatically leads to realization of the educational benefits of diversity” (Chun & Evans, 2016, p. 9) to “reframing the HSI narrative” as described by Garcia (2019, p. 115) and other authors (Castellanos & Gloria, 2007; Santiago, Taylor & Calderone, 2015).

Culture-Based Understandings

To be able to reframe an HSI, a framework will be necessary. This will, of necessity, include an orientation toward Hispanic culture. As was described above, Hispanic/Latinx students at the HSIs represented in the 2018 sample exhibited both a higher internal and external locus of control than their non-Hispanic peers. This is

consistent with persistence and prevalence of Mexican American culture among Hispanic/Latinx college students at Hispanic-Serving Institutions in New Mexico and Texas as the higher internal locus aligns with a cultural emphasis on hard work, personal responsibility, and confidence in one's ability to succeed present in Mexican American culture (Aoki, 2010; Arellano & Padilla, 1996; Knight et al., 2010; Luzzo, 1997). These were also recently confirmed as Hispanic cultural values by Hispanic/Latinx students, faculty, staff, and administrators at HSIs in NM and TX (Preuss et al., 2019; Preuss et al., 2020a). The higher external locus of control rating also aligns with values Hispanic/Latinx and non-Hispanic faculty, staff, and administrators at HSIs felt characterized Hispanic culture (Preuss et al., 2019; Preuss et al., 2020a) and studies in psychology (Diaz, Blanco, Bajo & Stavrakaki, 2015) and health (Roncancio, Ward & Berenson, 2011) that confirm fatalistic outlooks among Hispanics. The presence of both higher internal and external locus of control illustrates the need to move beyond common or even stereotypic understandings (Arciniega, Anderson, Tovar-Blank & Tracey, 2008; Falicov, 2010) to facilitate culturally relevant and educationally advantageous interaction with Hispanic/Latinx students.

A second key value confirmed as persisting among the students, familism (Preuss et al., 2019; Preuss et al., 2020a), should be a part of any Hispanic cultural orientation. The familial orientation of current Hispanic/Latinx students is less formulaic than is the common conception and should be viewed as the outworking of a central value rather than a set of dictates. The students reported stronger attachment to their families than their peers, the sense that their academic outcome will impact their family, that their family will "greatly benefit" based on their time and effort in college, an expectation that they would use their college experience to aid family members, and a stronger expectation that they would help at home while in college than their peers. That is a familial collectivist viewpoint (Champagne et al., 2016; Ruiz, Sbarra & Steffen, 2018) rather than a set of expectations and demands.

The more explicit and limiting statements of expectations of and demands from family listed on the survey, expectations regarding involvement with family events and concerns, financial support, and the impact of family income on college attendance, showed no significant difference by ethnicity. Thus, there was also a general finding that Hispanic/Latinx students felt as supported by their families regarding their educational goals and decision to attend college as their non-Hispanic peers and that they did not face significantly different financial expectations from their families than their non-Hispanic peers. These understandings of what constitutes the outworking of familism for Hispanic/Latinx students can clearly be employed to great advantage in higher education. Apprehending, appropriately emphasizing, and facilitating the realization of these cultural values in a student's college life and experience has the potential for multiple positive outcomes for the student, for the student's family, for the institution, and even for long-term sustainability of the institution.

It must also be noted that some cultural patterns should be acknowledged in order to create structures that will help students avoid pitfalls and to educate faculty and staff to recognize warning signs of a stagnated student. For example, it is possible for the emphasis on hard work, personal responsibility, and confidence in one's ability when combined with other factors like an orientation toward not being disruptive in social settings (Knight et al., 2010; Lorenzo-Blanco et al., 2012; Pina-Watson, Castillo, Jung, Ojeda & Castillo-Reyes, 2014) and "obedience, duty, and deference [to]...position within a hierarchical structure" (Castillo, Perez, Castillo & Ghosheh, 2010, p. 164) to limit a student. Other factors like first-generation student and ESL standing can also be involved (Dennis, Phinney & Chuateco, 2005; Wibrowski, Matthews, & Kitsantas, 2017). The ultimate result, though, can be too great a reliance on individual effort and persistence to learn elements of course content while new material appears each session. This can be accentuated by machismo and its counterpart marianismo which research has shown to be associated with patterns that are not conducive to help seeking (Arciniega, Anderson, Tovar-Blank & Tracey, 2008; Castillo, Perez, Castillo & Ghosheh, 2010; Nunez et al., 2016, p. 202).

A perception that Hispanic/Latinx student are reluctant to seek assistance was also confirmed in Preuss et al.'s study (2019) that included responses from faculty, staff, and administrators at up to 60 HSIs. The result of this combination of factors can be students who are falling behind while putting forth their best effort and exercising personal initiative. They face waves of new sequentially linked and scaffolded information and seek in relative isolation to power through to an understanding. Yet, researchers correctly caution against overgeneralization of some elements of machismo and marianismo as negative (Castillo, Perez, Castillo & Ghosheh, 2010; Falicov, 2010). The authors agree these are "wider and much more complex" (Falicov, 2010, p. 310) "multidimensional realities" (Falicov, p. 324) rather than characteristics that should be viewed as a deficit. It is therefore important to know these values exist, to understand the possibility for them to contribute to study approaches that are less productive but also to be aware that this is not a universal circumstance. It is also necessary to know that, in

many cases, regular and open interaction with students can do much to forestall this challenge for those prone to it. However, faculty and staff need to be made aware that this potential exists and for whom. They cannot be expected to simply intuit an understanding of what researchers call a complex and multidimensional circumstance.

A professional development pattern focused on Hispanic culture, primarily Mexican American culture in most of NM and TX, and how it aligns with the culture of higher education should be enacted by HSIs to assist the faculty and staff in understanding and aiding students. Without this, it is likely that the perception among Hispanic/Latinx student that the institutional representatives of HSIs do not understand Hispanic culture will persist as, unfortunately, few HSIs currently offer professional development programming regarding Hispanic culture to their faculty, staff, and administrators (Preuss et al., 2019).

Conclusion

The broad set of queries incorporated in the surveys of students at HSIs in New Mexico and Texas resulted in a nuanced description of the institutions' student populations. These data provided significant insight into demographics, general characteristics, acculturative stress, and culture-based understandings that has multiple implications for practice. Above all else, these data illustrate the profound need for faculty, staff, and administrators at HSIs in NM, TX, and beyond to engage in "reframing the HSI narrative" (Garcia, 2019, p. 115). The findings presented and HSIs' responsibility to educate nearly two-thirds of the Hispanic/Latinx college students in the United States (Revilla-Garcia, 2018) indicate that effort must be immediate and thoroughgoing.

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References

- Arciniega, G. M., Anderson, T. C., Tovar-Blank, Z. G., & Tracey, T. J. G. (2008). Toward a fuller conception of machismo: Development of a traditional machismo and caballerismo scale. *Journal of Counseling Psychology, 55*(1), 19-33.
- Arellano, A. & Padilla, A. (1996). Academic invulnerability among a select group of Latino university students. *Hispanic Journal of Behavioral Sciences, 18*(4).
- Arellano, G., Jaime-Acuña, O., Graeve, O., & Madsen, L. (2018). Latino engineering faculty in the United States. *MRS Bulletin, 43*(2), 131-147.
- Castellanos, J., & Gloria, A. M. (2007). Research considerations and theoretical application for best practices in higher education: Latina/os achieving success. *Journal of Hispanic Higher Education, 6*, 378–396.
- Castillo, L. G., Perez, F. V., Castillo, R. & Ghosheh, M. R. (2010). Construction and initial validation of a Marianismo Beliefs Scale. *Counseling Psychology Quarterly, 23*(2), 163-175.
- Center for American Progress. (2020). Talk poverty. Retrieved from: <https://talkpoverty.org/state-year-report/texas-2018-report/>
- Champagne, B., Fox, R., Mills, S., Sadler, G., & Malcarne, V. (2016). Multidimensional profiles of health locus of control in Hispanic Americans. *Journal of Health Psychology, 21*(10), 2376-2385.
- Chun, E. & Evans, A. (2016). *Rethinking cultural competence in higher education: an ecological framework for student development*. Hoboken, NJ: John Wiley & Sons.
- Dennis, J. M., Phinney, J. S., & Chuateco, L. I. (2005). The role of motivation, parental support, and peer support in the academic success of ethnic minority first-generation college students. *Journal of College Student Development, 46*(3), 223-236. Johns Hopkins University Press. <https://doi.org/10.1353/csd.2005.0023>

- Diaz, D., Blanco, A., Bajo, M., & Stavrakaki, M. (2015). Fatalism and well-being across Hispanic cultures: The Social Fatalism Scales (SFS). *Social Indicators Research*, 124, 929-945. <https://link.springer.com/article/10.1007/s11205-014-0825-1>
- Falicov, C. J. (2010). Changing constructions of machismo for Latino men in therapy: "The devil never sleeps." *Family Process*, 49, 309-329.
- Garcia, G. A. (2019). *Becoming Hispanic-Serving Institutions: Opportunities for colleges and universities*. Baltimore, MD: Johns Hopkins University Press.
- Knight, P. K., Gonzalez, N. A., Saenz, D. S., Bonds, D. D., German, M., Deardorff, J., Roosav, M. W. & Updegraff, K. A. (2010). The Mexican American Cultural Values Scale for adolescents and adults. *Journal of Early Adolescence*, 33(3), 444-481.
- Lorenzo-Blanco, E. I., Unger, J. B., Baezconde-Garbanati, L., Ritt-Olson, A. & Soto, D. (2012). Acculturation, enculturation, and symptoms of depression in Hispanic youth; the roles of gender, Hispanic cultural values, and family functioning. *Journal of Youth and Adolescence*, 41(10), 1350-1365.
- Moskowitz, R. (2019). Poverty in New Mexico. New Mexico Department of Workforce Solutions. Retrieved April 20, 2020 from https://www.dws.state.nm.us/Portals/0/DM/LMI/Poverty_in_NM.pdf
- National Center for Education Statistics. (n.d.). Fast facts: Enrollment. <https://nces.ed.gov/fastfacts/display.asp?id=98>
- New Mexico Voices for Children. (2017). New Mexico ranked worst in the nation for child poverty. Retrieved April 20, 2020 from <https://www.nmvoices.org/archives/9631>
- Nunez, A., Gonzalez, P., Talavera, G. A., Sanchez-Johnsen, L., Roesch, S.C., Davis, S.M., ...Gallo, L. C. (2016). Machismo, marianismo, and negative cognitive-emotional factors: Findings from the Hispanic community health study/study of Latino sociocultural ancillary study. *Journal of Latinx Psychology*, 4(4), 207-217.
- Pew Research Center. (2019). 7 Facts about the STEM Workforce. Retrieved from: <https://www.pewresearch.org/fact-tank/2018/01/09/7-facts-about-the-stem-workforce/>.
- Pina-Watson, B., Castillo, L. G., Jung, E., Ojeda, L., & Castillo-Reyes, R. (2014). The Marianismo Beliefs Scale: Validation with Mexican American adolescent girls and boys. *Journal of Latina/o Psychology*, 2(2), 113-130.
- Preuss, M. D., Rodin, J. C., Sosa, E. M., Ramos, J. D., Dorsett, C. R. & Burleson, C. R. (2019). Hispanic-Serving Institutions in the South-Central United States: A Research Report for Los Barrios de Amarillo Canyon, TX: West Texas Office of Evaluation and Research.
- Preuss, M., Sosa, E., Rodin, J., Ramos, J., Dorsett, C., & Burleson, C. (2020). Competence of faculty, staff, and administrators in Hispanic culture: Evidence from three surveys of personnel and students at Hispanic-serving institutions. *International Journal of Research in Education and Science (IJRES)*, 6(2), 202-230. <https://www.ijres.net/index.php/ijres/article/view/877>
- Preuss, M., Sosa, E., Rodin, R., Ramos, J., Dorsett, C. & Burleson, C. (2020). Role models and mentoring relationships: Preferences expressed by Hispanic students attending Hispanic-Serving Institutions. *International Journal on Social and Education Sciences*, 2(2), 57-74. <https://www.ijonses.net/index.php/ijonses/article/view/35>
- Ramos, J., Rodin, J., Preuss, M., Sosa, E., Dorsett, C., & Burleson, C. (2020). Work patterns and financing college: A descriptive regional report regarding students at Hispanic-Serving Institutions in New Mexico and Texas. Manuscript submitted for publication.
- Revilla-Garcia, N. J. (May 31, 2018). Number of Hispanic-Serving Institutions in the U.S. increases to 492. Retrieved from <https://www.hacu.net/NewsBot.asp?MODE=VIEW&ID=2920>
- Roncancio, A. M., Ward, K. K., & Berenson, A. B. (2011). Hispanic women's health care provider control expectations: The influence of fatalism and acculturation. *Journal of Healthcare for Poor Underserved*, 22(2), 482-490. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3260793/>
- Ruiz, J. M., Sbarra, D., & Steffen, P. R. (2018). Hispanic ethnicity, stress psychophysiology and paradoxical health outcomes: A review with conceptual considerations and a call for research. *International Journal of Psychophysiology*, 131, 24-29.
- Santiago, D. A., Taylor, M., & Calderon, E. (2015). Finding your workforce: Latinos in science, technology, engineering, and math (STEM): Linking college completion with US workforce needs: 2012-13. *Excelencia in Education*.
- Sapin, R. (December 9, 2016). Rural NM has the highest poverty rate among all states' rural areas. Albuquerque News. Retrieved April 20, 2020 from <https://www.bizjournals.com/albuquerque/news/2016/12/09/rural-nm-has-the-highest-poverty-rate-among-all.html>

- Terenzini, P. T., Springer, L., Yaeger, P. M., Pascarella, E. T., & Nora, A. (1996). First-generation college students: Characteristics, experiences, and cognitive development. *Research in Higher Education*, 37, 1-22. <https://doi.org/10.1007/BF01680039>
- Tinto, V. (1987). *Leaving College*. Chicago, IL: University of Chicago Press.
- Wibrowski, C. R., Matthews, W. K., & Kitsantas, A. (2017). The role of a skills learning support program on first-generation college students' self-regulation, motivation, and academic achievement: A longitudinal study. *Journal of College Student Retention: Research, Theory & Practice*, 19(3), 317-332.
- Zalaquett, C. P. (1999). Do students of noncollege-educated parents achieve less academically than students of college educated parents? *Psychological Reports*, 85, 417-421. <https://doi.org/10.2466/pr0.1999.85.2.417>
- Zhan, M., Xiang, X., & Elliott III, W. (2018). How much is too much: Educational loans and college graduation. *Educational Policy*, 32(7) 993–1017.