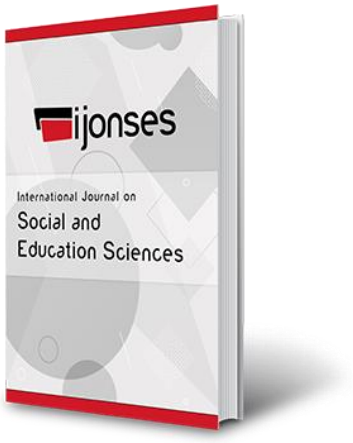

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Work Patterns and Financing College: A Descriptive Regional Report regarding Students at Hispanic-Serving Institutions in New Mexico and Texas

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Abstract

College students at 14 Hispanic-Serving Institutions (HSIs) in New Mexico and Texas were surveyed about their experiences in and perceptions of higher education. Three primary foci were students' employment status, work commitments, and means of financing college. Most of the informants reported working while in college and, similar to previously reported national averages, 69.4% of the informants were actively employed. Twice as many of the actively employed informants worked off campus as on campus and over three-quarters of employed students reported working part-time. There were no significance differences in these areas by gender, ethnicity, or even when broken out as Latinas, Latinos, non-Hispanic females and non-Hispanic males but students of non-traditional age reported a work commitment at significantly higher levels. For hours of work per week, there were also no significant differences by gender, ethnicity, and for the four possible subsets (Latinas, Latinos, etc.) but being a non-traditional aged student and being married/cohabiting were associated with working more hours at statistically significant levels. Students at the HSIs in New Mexico also reported more hours of work at statistically significant levels. Differences by gender, ethnicity, age, relational status, and state were found for means of funding college. The findings have direct application to the 120 HSIs in New Mexico and Texas and implications for policy and practice at HSIs across the SW United States. The findings have direct application to the 120 HSIs in New Mexico and Texas and implications for policy and practice at HSIs across the SW United States.

Introduction

As approximately two-thirds of the Hispanic/Latinx students in higher education attend Hispanic-Serving Institutions (HSI) (Revilla-Garcia, 2018), it is important to understand the characteristics of and commitments among this large group of students concentrated at just over 500 institutions of higher education (HACU, 2019). Reaching this understanding is especially critical for the individuals who staff and administer these colleges and universities. Unfortunately, little research that considers a regional sample has been conducted regarding HSIs and their students (NSF, 2017; Preuss et al., 2019). Research exists as case studies (Rodríguez Amaya,

Betancourt, Collins, Hinojosa, & Corona, 2018), institution-specific studies (Macias, 2015), publications that focus on organizational characteristics or culture (Garcia, 2017; Garcia, Ramirez, Patron, & Calderon, 2019), surveys of faculty, staff, and administrators regarding the institution or its students (Gates, 2018), and single-topic investigations involving faculty, staff, administrators and students at one institution (Garcia, 2016). Studies considering data at the national level are also present (Nunez, Sparks, & Hernandez, 2011) but detailed, regional studies with samples spanning several states are rare.

With the growing numbers of Latinx individuals in both the general population (Flores, 2017) and student population in higher education (NCES, n.d.), especially in the southwest United States (Nagy, Whallun, & Kallus, 2018), efforts are underway to support their academic success. Programming to improve Hispanic students' GPAs, retention rates, graduation rates and representation in science, technology, engineering and mathematics (STEM) are being enacted (Fuentes in Preuss et al., 2019) as well as being described in print (Chang, Denson, & Saenz, 2006; Zarate, Saenz, & Oseguero, 2011) and at conferences (Acevedo, 2020; Lopez, 2020; Ortega, 2020). This is occurring in response to the differences that exist between Latinx students' success in higher education and that of their contemporaries (NCES, 2018; Zarate, Saenz, & Oseguero, 2011). These factors motivated the research team to plan and conduct survey research to capture student perspectives from as broad a range of HSIs as possible and at a regional scale. The region in which the authors surveyed students attending HSIs was the south-central United States. A wide variety of topics were addressed and findings in several areas have already been published (Preuss et al., 2020a; Preuss et al., 2020b). This paper discusses findings regarding the work patterns reported by students at 14 HSIs and how the students were paying for their college education.

Research Focus

As part of a broader investigation that sought to understand the background, experiences, and commitments of students attending HSIs, information about employment status, work commitments, and means of paying for college was gathered. The queries related to work and financing college asked:

- Whether the student was employed and if their employment was on or off campus.
- How much time their work took each week.
- How students were paying for college.

The intention, like with the other information gathered, was to establish an accurate and broad-based description in these topic areas to help faculty, staff, and administrators when they plan outreach, educational, student support, and co-curricular activities or attempt to understand participation or attendance rates in programming offered. As a regional sample, the response set also has the potential to inform grant and scholarship policies.

Literature Review

Hispanic/Latinx Population of the United States

In the United States, the Hispanic population is the largest and second fastest growing minority group (Colby & Ortman, 2015; Flores & Park, 2015). It is also the minority group with the lowest average age. The United

States Census Bureau (2012) reported there were 50.5 million Hispanics in 2010, accounting for 16% of the overall population of the US. In 2011, Hispanics became the largest minority group in the United States, reaching 16.7% of the total population (US Census Bureau, 2012). Growth in number is expected to continue and researchers project that by 2060 Hispanics will make up 30% of the US population, reaching a total of 119 million people (Colby & Ortman, 2015). The percentage of Hispanics living in New Mexico and Texas, the two states from which the student respondents came, is higher than that for the United States. Flores (2015) noted that 10.7 million Hispanics lived in Texas as of 2015 but the US Census Bureau's 2020 estimate was 39.6% of Texas' residents identify as Hispanic, a little less than 11.5 million people, and some researchers believe Texas will have a minority-majority population by 2022 (Valencia, 2017). New Mexico has a higher percentage of its residents who identify as Hispanic. Reported as 48% by the Pew Research Center in September of 2016 (Stepler & Lopez) and estimated to be 49.1% in 2020 by the US Census Bureau.

Hispanic/Latinx Population in Higher Education

The National Center for Education Statistics (NCES) estimates the percentage of Hispanic students in elementary and secondary schools in the United States, between 2015 and 2027, will increase from 26% to 29% (2019). During that same time, overall high school graduation rate is projected to rise by 5% with Hispanic/Latinx students making up a large portion of the increase as graduations are expected to increase by 52% from about 640,000 Hispanic high school graduates to 975,000 (NCES, 2019). This has the potential to continue the increases in the number of Hispanic/Latinx individuals entering higher education.

The National Science Foundation (2012) reported that 6.3 million students attended community colleges in 2012 with 3.7 million identifying as White, 1.4 million as Hispanic, 1.1 million Black, 419,000 Asians/Pacific Islanders, and 71,000 as American Indians/Alaska Natives. Thus in 2012, 22.2% of the community college students identified as Hispanic. Other reports from the same year had Hispanic/Latinx students making up 16.5% of the overall college enrollment (Fry & Lopez, 2012). In 2016, the total count of undergraduate students in the United States was 16.9 million with Hispanics making up 3.2 million (NCES, 2018) or 18.9%. While there has been an increase in the number of Hispanics enrolling into higher education, this has not translated to a proportionate increase in degree attainment (Preuss et al., 2019) or completion of graduate degrees. While there was a 79% increase in undergraduate enrollment for Hispanics from 2000-2016, there was not a similar increase in degree attainment and Hispanic/Latinx enrollment in graduate school only increased from 6% to 10% of all enrolled students (NCES, 2018). The percentages for Hispanics are even lower when narrowing the focus to undergraduate and graduate degrees in STEM fields (NSF, 2012).

These racial/ethnic differences in enrollment and graduation rates are reflected in the U.S. workforce. The National Science Board (2018) noted that 66.6% of science and engineering (S&E) jobs are held by White individuals, with Asians holding 20.6% of the jobs, Black 4.8%, and Hispanics 6.0%. The percentage of individuals who are White that hold S&E jobs is approximately 10% higher than the percentage of the US population that identifies as White (US Census Bureau, 2020c) while the number of Hispanics working in S&E fields is less than half of the percentage of the US population that identifies as Hispanic/Latinx (National

Science Board, 2018).

> In 2015, Hispanics and Latinos accounted for 6.0% of the U.S. S&E workforce, despite making up 14.9% of the U.S. residential population aged 21 or older (National Science Foundation, 2018). A slightly more recent study found that Hispanics and Latinos accounted for 7% of the United States' S&E workforce, despite representing 16% of the total U.S. workforce (Pew Research Center, 2019). The statistics are even worse for females: in 2015, Hispanic and Latina women made up 1.8% of the US S&E workforce, despite representing 7.5% of the US residential population aged 21 or older (National Science Foundation, 2018).
>
> The underrepresentation of minorities in S&E fields in the professional workforce remains one of the most challenging problems facing policymakers interested in the development of diverse human capital to maintain U.S. competitiveness in the global economy (Sharkawy, 2015). (Clapp, 2019, in Preuss et al., 2019).

Work Commitments of College Students

The number of students working while enrolled in and attending college has grown for decades to reach between 70% and 80% of students reporting a work commitment (Davis, 2012; Carnevale, Smith, Melton, & Price, 2015). Exact percentages vary depending upon how work was defined and reported. Carnevale, Smith, Melton, and Price (2015) found that female college students are typically employed at higher rates than their male peers. Studies have also shown that states in the south-central and southwest portions of the United States have high numbers of students who work full-time. Davis (2012) found levels to be in the low to mid-twenties with Arizona reporting 24.9%, Colorado, New Mexico and Oklahoma all reporting 25.0%, and Texas 20.0%. There was no difference by race or based on course load with both part-time and full-time students reporting work at similar rates. However, Davis (2012) and national level reports like those produced by the National Center for Education Statistics (2017; 2018; 2019) do not isolate responses from Hispanic-Serving Institutions and their student population. Since nearly two-thirds of Hispanic/Latinx students who attend college do so at an HSI (Revilla-Garcia, 2018), this is a substantial gap in the available information.

Hours worked per week have also been examined. The number of hours committed to paid work by college students ranged from less than twenty to over forty hours each week and the number of weeks worked in a year ranged from 13 to 52 (Davis, 2012). Working part-time while in college can be a positive experience for students. Dundes and Marx (2007) note that between 10 and 19 hours of work per week was associated with students performing better academically than non-working peers while Kane, Healy, and Henson (1992) reported that students with part-time jobs that were similar to their academic studies were more pleased with their employment. Employment is also useful for students when skills learned from the job correlate to college activities like problem solving or managing time (McNall & Michel, 2017). Some researchers have focused on institutions and programs in which students get experience in their field of study like dental students working part-time in dental practices (Poorterman, Dikkes, & Brand, 2009). While working in a field related to one's area of study seems to be beneficial, it is likely that jobs held by many students are entry-level and convenience

based. Job opportunities that provide experiences related to a specific field of study are competitive, and may be hard to come by (Hamilton & Sumner, 2017).

There is mounting evidence that working full-time hours while in college has a harmful effect on students. Working more than twenty hours can hinder academic success resulting in lower GPAs for freshmen students (Pike, Kuh, Massa, & McKinley, 2009). Attrition rates have also been negatively correlated with employment (NCES, 1994). A more recent study, albeit in France, found students at a French university who worked more than 16 hours a week experienced negative impact on their academic success (Body, Bonnal, & Giret, 2014). Understanding work load and its interaction with a student's approach to and outcomes in education becomes even more complex when looking at hours worked per day. Researchers found higher chances of burnout and lower reported general psychological health when students reported higher levels of conflict between work and school and lower levels of perceived support (McNall & Michel, 2017). Butler, Dodge, and Faurote (2010) found that the number of alcoholic drinks college students consumed rose when the hours they worked per day increased. These studies suggest a need for better understanding of the impact of the number of hours worked to uncover generalizable patterns, positive or negative, at the local, regional and national level, and for specific populations and different types of colleges and universities.

How Students are Financing College

A second area of interest to the higher education community is how students are paying for college. Recent research has revealed that Hispanic and non-Hispanic students report similar amounts of encouragement and psychological support from their family (Rodin, 2018). However, it is unknown whether this translates to financial support from parents and partners. Studies regarding parental financial support for students in college (Carney, 2004) exist but do not isolate patterns specific to Hispanic families. National considerations of similar information also exist (Lopez, Turley, & Desmond, 2011) but there are no considerations specific to Hispanic-Serving Institutions and the Latinx students who attend them at any scale, local, state or regional. Having data of that type could improve understanding of the financial hurdles and family dynamics that influence students' work commitments.

Methodology

The results reported are part of a larger study funded by the National Science Foundation (award # 1764268). All research patterns and materials were submitted to and approved by an Institutional Review Board at a state university. Detailed accounts of the research methodology can be found in Preuss et al. (2019) and Preuss et al. (2020a; 2020b). They will be summarized here.

The investigative process was part of and extended after the Consejos Colectivos conference held in Dallas, Texas in late February of 2018. Following focus group data gathering at the conference and targeted interviews with audiences under-represented or not included in the focus groups, all session recordings were transcribed. Open qualitative coding (Kolb, 2012) was completed by authors of this article who were also the members of

the project's research team. The results from the coding, material from the literature, suggestions from conference team members, and the professional experience of the authors' were employed to create surveys that were distributed to 119 HSIs in a four-state region. The intention had been to survey persons at all HSIs in a seven-state region (AR, CO, KS, LA, NM, OK, TX) but it was discovered that there were no officially recognized HSIs in three of the states when distribution lists were prepared for the survey. That limited the actual region in which the survey was distributed to Colorado, Kansas, New Mexico, and Texas.

The student survey consisting of 33 questions, many of which were multipart queries, was distributed by sending e-mail announcements with an embedded link to over 1,500 faculty, staff, and administrators at the 119 HSIs in the four-state region. A similar e-mail was sent to 39 individuals who had volunteered at the Consejos Colectivos conference to assist with survey distribution. The Texas Association of Chicanos in Higher Education also distributed the survey link to their members. In each case, the e-mail asked the recipient to share the survey link with students at their institution, should they be in direct contact with students, or with their colleagues who were in direct contact with students. In addition, several members of the research team solicited participation in person at the dining commons and student center food court of their institution, through their personal network of faculty contacts, and through college groups at churches.

The survey was accessible for a three-week period from the end of April to the middle of May in 2018. Once closed, the responses were downloaded in an Excel spreadsheet. A total of 585 students in three of the four states, Colorado, New Mexico and Texas, accessed the survey. They attended 15 distinct colleges and universities, "one university in Colorado, three four-year and two two-year institutions in New Mexico, and five four-year and four two-year institutions in Texas" (Preuss et al., 2020b, p. 62). The responses were reviewed for submission by a student from an HSI, completeness, and consistency. Student self-report, a selection made from a pull down list or a written response following the selection of "Other" in the pull down list, was used to check that submissions came from students at HSIs. "The limited number of responses from the university in Colorado were not included [for analysis] as it was not an HSI" (Preuss et al., 2020b, p. 62). This action and removing incomplete responses left a total of 464 usable response sets from students. For the analyses reported here, an additional student's responses were excluded for being inconsistent leaving a total of 463 respondents attending 14 HSIs in New Mexico and Texas. Statistical analyses of responses was conducted using SPSS and methods appropriate to each form of data. This report addresses one subset of topics from the student survey, questions asked about work commitments and paying for college. This includes employment rates, types of work (i.e., on and off campus, part- and full-time), and hours worked per week with the ability to disaggregate by gender, age, ethnicity, relationship status, and state. The same forms of disaggregation were possible for the ten forms of financing college included in the survey.

Limitations

Several limitations exist for the information being reported. The data was self-reported. While the questions requested easily quantifiable information in the units in which it is commonly considered, like hours worked, there was no means of checking the accuracy of the data. Because the responses were submitted anonymously

and none of the information requested is generally considered to be of a sensitive nature, it is possible but unlikely informants felt a need to shield themselves by providing inaccurate information. The findings are descriptive. The focus of the queries was what was happening rather than why a pattern existed. Informants were not asked whether they were attending college part-time or full-time. Having this information would have made different forms of and greater detail in analysis possible for some responses. Several response categories were combined to create dummy variables for working and not working, part-time and full-time work, traditional versus non-traditional aged students, and persons sharing a residence with a partner (married and cohabiting) versus respondents who were single. These limit the granularity of some comparisons and might have prevented identification of some patterns.

Findings

Descriptive and inferential statistics were employed in data analysis. Percentage of respondents occurring in categories, p values, and effect size, when appropriate, are reported. Effect size is reported as the phi value. A weak effect size is considered to be a phi value up to 0.2, a moderate to moderately strong effect size is 0.2-0.3, and a strong to very strong effect size is up to 0.4, with 0.4-0.5 as an "extremely good relationship or the two variables are measuring the same concept" (Laerd Statistics, 2017). Response sets were disaggregated by gender, ethnicity, age, relationship status (i.e. single versus married and cohabiting), and state.

Representative Nature of the Sample

As reported in Preuss et al. (2020b), the response sets were assessed to determine whether they represented the population from which the sample was drawn, the 14 institutions in New Mexico and Texas. These were three universities and two community colleges in New Mexico and five universities and four community colleges in Texas. Cumulative totals and overall percentages of gender, ethnicity, and race were developed for the 14 colleges and universities based on online sources. The survey sample was shown to be representative in respect to gender, ethnicity, and most racial categories. The student population at the 14 colleges and universities was 59.4% female and 40.6% male and 41.7% Hispanic to 58.3% non-Hispanic. These figures are very similar to those found for the survey sample (see Table 1). The racial distribution at the 14 colleges and universities was:

- 5.6% Asian.
- 14.3% Black/African-American.
- 0.1% Hawaiian/Pacific Islander.
- 36.8% Hispanic/Latinx.
- 0.6% Native American/Alaska Native.
- 33.8% White.
- 2.7% Unknown.
- 2.9% two or more.
- 5.5% non-resident/alien.

Thus, it appears that African-Americans were under-sampled and that Whites were oversampled with the survey (see Table 1) but a total of 5.6% of the student population at the 14 colleges and universities was classified as unknown and two or more races which may have depressed the count of African-Americans. In addition, the survey respondents were allowed to select more than one racial category which may have elevated the value for one or more groups.

Table 1. Sample Demographics and Distribution Between New Mexico and Texas

Gender	Actual Count	Percentage of Respondents
Female	283	61.0 %
Male	176	38.1 %
Non-binary	2	0.5%
Unspecified	2	0.5%
Ethnicity		
Hispanic	213	45.9 %
Non-Hispanic	250	54.1 %
Race		
Asian	20	4.1%
Black/African-American	28	5.7%
Hawaiian Native/Pacific Islander	3	0.6%
Hispanic/Latinx	182	37.1%
Native American/Alaska Native	14	2.9%
Other	16	3.3 %
White	227	46.3 %
Age		
18-24 years of age	389	84.1%
25-29 years of age	36	7.8%
30-40 years of age	23	5.0%
41 or more years of age	15	3.2%
State		
Texas	408	88.1 %
New Mexico	55	11.9 %

Note: n = 490 for race as respondents were allowed to select more than one racial category.

Data regarding the age of students in attendance was not available for some of the 14 institutions from which the sample was drawn making calculation of a combined total and comparison with the sample impossible. Overall, most of the students in the sample reported being of traditional college age (see Table 1) although there was a statistically significant difference in the age distribution in the samples from the two states. Texas respondents were predominantly of traditional college age (87.7%) while 56.4% of informants from New Mexico were. This difference was significant at the $p < .001$ level with a moderately strong effect size (phi = -.277). This difference may have impacted some of the comparisons made based on student age and comparisons between states. That could not, however, be verified without data regarding the age distribution of students at the 14 institutions represented in the sample. Similarly, student respondents from New Mexico were found to be more likely to be married or cohabiting with a partner than the respondents from Texas, 42.0% to 22.6%. This difference was significant at the $p = .003$ level with a weak effect (phi = -.141) and may have been a function of the NM sample having a much higher level of non-traditional aged students. Relationship status information was not available about the student populations at the 14 institutions represented in the sample. A total of 408 of the respondents

were from Texas with the remaining 55 living and attending college in New Mexico. The smaller count of respondents from New Mexico, while accounted for in statistical analysis, may impact ability to generalize from the findings.

Work Commitments of Students

The survey asked respondents to classify their present work commitment in one of five categories (see Table 2). These addressed work on and off campus as well as three patterns of not working while in college (work only during breaks, worked in the past but not at present, and will not work in college). The cumulative total of the first two categories provided the count of students working. Fully 69.4% of the students reported working at the time they completed the survey. When working on breaks and in the past but not at present is added, 95.2% of the students reported working in one form or another while in college. Only 4.7% of the sample reported they would not work while in college.

The majority of the students who were working were employed off campus (46.1%), 23.3% worked on campus, and the remaining 30.5% selected one of three descriptions of not working (see Table 2). The data was also sorted into students working part-time (30 hours or less) and full-time (over 30 hours). The 30 hour threshold was chosen because of the high volume of students working off campus and the level 30 hours per week having been defined by the Affordable Care Act and the Internal Revenue Service as the threshold at which an individual crosses into full-time employment (IRS, n.d.; US Small Business Administration, n.d.). Over three-quarters of the students, 75.7%, reported part-time employment with 24.3% working full-time (see Table 3).

Table 2. Work Commitments On and Off Campus

Work Commitment	Actual Count	Percentage of Respondents
Employed off campus.	108	23.3%
Employed on campus.	214	46.1%
I don't work while attending school but do/might during breaks.	99	21.3%
I am not working now but did in the past while attending college.	21	4.5%
I won't work while in college.	22	4.7%

Work Commitments of Students Disaggregated by Gender, Ethnicity, Age, and State

The gender of the student did not significantly impact the level or type of work commitment held (see Table 3). Fewer of the male students reported working than the female students (63.3% to 72.8%). This was not a statistically significant difference but paralleled the findings of Carnevale, Smith, Melton, and Price (2015). More of the female students reported working part-time but that also was not a statistically significant difference.

Table 3. Work Commitment Disaggregated by Gender, Ethnicity, and Age

	Employed	Part-time	Full-time
Overall Response Rate	69.4%	75.7%	24.3%
Gender			
Female	72.8 %	78.3 %	21.7 %
Male	63.3 %	71.5 %	28.7 %
Ethnicity			
Hispanic/Latinx	71.4%	75.8%	24.2%
Non-Hispanic	67.7%	75.5%	24.5%
Age of Student			
Traditional (18-24)	66.4%	81.0%	19.0%
Non-traditional (25+)	85.2%	52.7%	47.3%

Note: both the non-binary and unspecified students were excluded for the consideration by gender as the count of respondents in each category was too small for meaningful analysis.

There was little difference between responses from students who identified as Hispanic/Latinx and non-Hispanics in regards to being employed and the number of hours worked (see Table 3). Student age was also employed to disaggregate the data. The age categories, 18 to 24 years, 25 to 29 years, 30 to 40 years, and 41 or more years of age, were collapsed to two groups because of small numbers of respondents in some of the higher age ranges. These groups were traditional aged students (18 to 24 years of age) and non-traditional aged students (total of the three other categories). As might be expected, non-traditional age students were more likely to report working.

Just over 25% of the female students worked on campus while 19.2% of the male students did (see Table 4). The percentage of females and males working off campus were similar 47.7% and 44.1%. More of the male students felt they would work between semesters or over the summer which might be an indication of short-term employment in physically demanding roles. Very little difference was reported between Hispanic and non-Hispanic students in any of the five work categories (see Table 4).

The work commitments of traditional and non-traditional aged students had some pronounced differences (see Table 4). As noted above, nearly 20% more of the non-traditional students reported working when the percent working both on campus and off campus are combined. They were also more likely to have been active employees in the past but less likely to take temporary employment between semesters and to forego working entirely while attending college. Pearson Chi Square analysis of the distribution of work commitments between the two groups for working and not working (on and off campus work = working; the three other categories = not working) was completed. A highly significant difference was found with a moderate effect size ($p = .001$, $phi = .201$) with non-traditional students reporting work commitments at a higher level. The higher levels of non-traditional students in the NM sample may have impacted this finding. It contributed to there being more persons in the smaller of two groups, non-traditional aged students but may have introduced other confounding factors as the NM sample also included significantly more married/cohabiting students ($p = .003$, $phi = -.141$).

Table 4. On and Off Campus Work Disaggregated by Gender, Ethnicity, and Age

Gender	On Campus	Off Campus	Do/Might at Breaks	Did in Past but Not Now	Won't Work in College
Female	25.1%	47.7%	17.3%	5.3%	4.6%
Male	19.2%	44.1%	28.2%	3.4%	5.1%
Ethnicity					
Hispanic/Latinx	23.1%	45.6%	19.2%	6.0%	6.0%
Non-Hispanic	23.4%	46.5%	22.7%	3.5%	3.9%
Age of Student					
Traditional	22.3%	44.1%	24.6%	3.8%	5.1%
Non-Traditional	28.4%	56.8%	4.0%	8.1%	2.7%

The survey asked the informants to identify the number of hours worked per week using five categories (see Table 5). The most frequent overall response was working between 11 and 20 hours a week at just under one third of all informants. Males reported working more hours than females. Both had the 11 to 20 hour category as their mode response but more males worked 21 to 30, 31 to 40, and more than 40 hours a week than females. These differences, though, were not statistically significant. Like was the case for working on and off campus, there was very little difference in the hours worked per week by Hispanic/Latinx and non-Hispanic students.

Table 5. Hours Worked Disaggregated by Gender, Ethnicity, and Age

	10 or Less Hours	11 to 20 Hours	21 to 30 Hours	31 to 40 Hours	More than 40 Hours
Overall	18.3%	32.8%	24.6%	14.5%	9.8%
Gender					
Female	19.4%	34.9%	23.9%	14.3%	7.3%
Male	16.2%	29.0%	26.1%	15.1%	13.3%
Ethnicity					
Hispanic/Latinx	18.8%	33.8%	23.2%	15.9%	8.2%
Non-Hispanic	17.8%	31.9%	25.7%	13.2%	11.2%
Age of Student					
Traditional	19.7%	34.3%	26.3%	14.1%	5.6%
Non-Traditional	11.1%	25.0%	15.3%	16.7%	31.9%

Note: Columns are hours worked per week. There were 16 students, 3.4% of the sample, who submitted a response of Not Applicable for hours worked. The figures above include only students who reported working.

Comparison of the hours worked by traditional and non-traditional aged students (see Table 5) and single and married/cohabiting students were completed with a Mann Whitney *U* test. A significant difference was found

for age with a p value of <.001 and a mean rank for traditional aged students of 220.94 and 293.41 for non-traditional students. As can be seen by comparing the percentages in Table 5, the non-traditional students in the sample reported, at highly significant levels, working more hours than the traditional aged students with the mode value for that group at more than 40 hours a week. The same proved true for the comparison of responses from single and married/cohabiting students. The married/cohabiting students were shown to work more hours at a highly significant level (p = .006) with the mean ranks of 215.62 for single students and 253.55 for married/cohabiting students. As could be anticipated, there was substantial overlap between the non-traditional student group and the married/cohabiting set. For example, 43.6% of the NM students were of non-traditional age with a similar percentage of them, 42.0%, married or cohabiting. This association might account for the similarity in result from statistical analysis.

Survey respondents were from New Mexico and Texas. Students from New Mexico reported employment and full-time employment at higher rates than the students in Texas (see Table 6).

Table 6. Work Commitment Disaggregated by State

	Employed	Part-time	Full-time
Overall Response Rate	69.4%	75.7%	24.3%
State-Specific Rate			
New Mexico	78.2 %	53.8 %	46.2 %
Texas	63.2 %	78.5 %	21.5 %

Note: Only 11.9% of respondents, 55 students, were attending school in New Mexico.

More students in both states worked off campus (see Table 7) with those in New Mexico reporting this at a higher rate as would be expected based on the response regarding full-time employment (see Table 6). Hours worked highlight this difference with 11 to 20 hours a week as the mode response for Texas and more than 40 hours a week the mode for New Mexico (see Table 8). But this data should be viewed with some caution as there were only 55 persons who responded to the survey from New Mexico.

Table 7. On and Off Campus Work Disaggregated by State

	On Campus	Off Campus	Do/Might at Breaks	Did in Past but Not Now	Won't Work in College
Overall	23.3%	46.1%	21.3%	4.5%	4.7%
State-Specific Rate					
New Mexico	20.0%	58.2%	14.5%	3.6%	3.6%
Texas	23.8%	44.4%	22.3%	4.7%	4.9%

While there were differences of up to 14 percentage points in response rates for working on or off campus and up to eight percentage points in one of the three "not working at present" categories when comparing the two states (see Table 7), these did not prove to be statistically significant as the sample from New Mexico, a total of 55 persons, was small.

Table 8. Hours Worked Disaggregated by State

	10 or Less Hours	11 to 20 Hours	21 to 30 Hours	31 to 40 Hours	More than 40 Hours
Overall	18.3%	32.8%	24.6%	14.5%	9.8%
State-Specific Rate					
New Mexico	13.5%	25.0%	15.4%	17.3%	28.8%
Texas	19.0%	33.9%	25.6%	14.2%	7.3%

Like was the case for hours worked disaggregated by student age, there is a notable difference in percentages for hours worked by state (see Table 8). The mode response for Texas was 11 to 20 hours while the mode response for New Mexico was over 40 hours a week. A Mann Whitney *U* analysis showed a statistically significant difference for hours worked between Texans and New Mexicans in the sample at $p = .008$ with a mean rank of 226.09 for Texas and 275.81 for New Mexico.

While no statistically significant differences were found for hours of work each week based only gender and ethnicity, whether one of the four subsets, Latinas, Latinos, non-Hispanic females, and non-Hispanic males, was likely to work more or less than the others remained an open question. The data was disaggregated into the four groups and comparisons made based on working versus not working, part- and full-time work, and hours worked per week. The comparisons for working and not working and for part-time versus full-time when completed by ethnicity while controlling for gender yielded no statistically significant results. Thus, for the sample, there was no significant difference between Latinas, Latinos, and non-Hispanic females and males in respect to having to work and hours worked. The findings are similar to those of Carnevale, Smith, Melton, and Price (2015) as females were found to be working more than males (see Table 4), nearly 30% of students in some of the categories were working more than 30 hours a week (see Table 9), and the Latina/Latino students reported working more than their non-Hispanic peers (see Table 9) although not at statistically significant levels.

Table 9. Hours Worked Disaggregated by Gender, Ethnicity

	Working	Not Working	Part-Time	Full-Time
Latinas	73.5%	26.5%	78.6%	21.4%
Latinos	67.1%	32.9%	70.7%	29.3%
White females	72.1%	27.9%	78.0%	22.0%
White males	60.0%	40.0%	71.9%	28.1%

	10 or Less Hours	11 to 20 Hours	21 to 30 Hours	31 to 40 Hours	More than 40 Hours
Latinas	19.8%	35.9%	22.9%	16.0%	5.3%
Latinos	16.0%	30.7%	24.0%	16.0%	13.3%
White females	19.1%	34.0%	24.8%	12.8%	9.2%
White males	16.7%	28.1%	27.1%	14.6%	13.5%

Note: Columns in the lower half of the table are in hours worked per week.

Summary of Work Commitment Findings

A total of 95.2% of the students in the sample, all of whom were from HSIs in New Mexico and Texas, were found to have worked or to be working while in college. Actively employed students were 69.4% of the sample. Most of the employed students worked off campus (46.1%), another 23.3% worked on campus, while the remaining 30.5% selected one of three descriptions of not working (see Table 2). Over three-quarters of the working students (75.7%) reported part-time employment with 24.3% working full-time (see Table 3). There were no significance differences in these areas between females and males, Hispanics and non-Hispanics, or even when broken out as Latinas, Latinos, non-Hispanic females and non-Hispanic males but students of non-traditional age reported a work commitment at significantly higher levels than traditional aged students ($p = .001$, phi = .201).

When hours of work per week were considered, there were again no statistically significant differences between females and males, Hispanics/Latinx and non-Hispanic students, and the four possible subsets (Latinas, Latinos, etc.). Yet, non-traditional aged students and students who were married or cohabiting with a partner reported working more hours than their traditional aged and single peers at statistically significant levels ($p < .001$ and $= .006$ respectively). More of the students in New Mexico reported working full time, off campus, and over 40 hours a week but only the difference in hours worked was statistically significant ($p = .008$).

Means of Financing College

The informants were asked to select all that apply from a list of ten means of paying for college. The options presented and the general response patterns appear in Table 10. A small number of the respondents, 15 of the 463, chose not to complete this question. The responses received make it possible to rank order the ways the students in the sample were funding college.

- With scholarships (49.1%).
- With assistance from their family (43.9%).
- With funds they earned (41.7%).
- With Pell Grants (39.6%).
- With loans (35.2%).
- Through work study (6.5%).
- Tuition exempt/veteran benefits (5.7%)
- Spouse/partner assisting (3.5%)
- Other (3.3%).
- Employer contributions (1.5%).

Chi-square analysis was used to test relationships between responses from females and males, ethnic groups, and by state in which the respondent attended college. The values for p and phi from the comparison of responses by gender are listed in Table 10. Men reported paying for college with the money they earn at higher rates than women and the use of Pell Grants and scholarships was reported more frequently by women but these differences were not statistically significant. There was only one significant difference between the responses from female informants and their male peers. That was for receiving financial assistance from a spouse or partner to pay for college. Female respondents were more likely to report receiving assistance from their spouse or partner than men, 5.3% of women versus 0.6% of men. The difference was significant at the $p = .007$ level with a weak effect (phi = -.126).

Table 10. Means of Paying for College: Female versus Male

Prompt	Sample	Female	Male	p Value	phi
My family helps me pay for college.	43.9%	43.5%	44.6%	.806	.011
My spouse or partner helps me pay for college.	3.5%	5.3%	0.6%	.007	-.126
With money I earn.	41.7%	38.9%	46.3%	.074	.114
With a Pell Grant.	39.6%	41.7%	36.2%	.237	-.055
With Scholarships.	49.1%	51.6%	45.2%	.182	-.062
With Loans.	35.2%	36.0%	33.9%	.639	-.022
With a work study position.	6.5%	6.7%	6.2%	.833	-.010
My employer is contributing.	1.5%	1.1%	2.3%	.306	.048
I am tuition exempt or using veteran's benefits.	5.7%	4.2%	7.9%	.097	.077
Other.	3.3%	3.2%	3.4%	.902	.006

Note: The students who classified themselves as non-binary or unspecified were not included in the analysis by gender. Responses were submitted by 283 females and 176 males.

Responses were also disaggregated by ethnicity (see Table 11). Fewer Hispanic students reported four forms of paying for college: receiving financial assistance from their family or from a spouse/partner, receiving tuition assistance from an employer, and being tuition exempt or using veteran's benefits. Yet, the difference in response rate between them and non-Hispanics were not statistically significant for these categories. Hispanic/Latinx students also reported more frequently that they paid for college with money they earned, received Pell Grants, were scholarships recipients, took loans, and participated in work study. This aligns with reports from Min and Taylor (2018) and Zhan and Xiang (2018) that minorities are more likely to take out loans for college and in higher amounts. But only the differences between responses from Latinx students and those of non-Hispanics in respect to Pell Grants and work study were found to be statistically significant. The Pell Grant finding was strongly significant with a moderate effect size ($p < .001$, phi = .212.) and the work study finding was significant with a weak effect ($p = .020$, phi = .108).

Table 11. Means of Paying for College: Hispanic versus Non-Hispanic

Prompt	Sample	Hispanic	Non-Hisp.	p Value	phi
My family helps me pay for college.	43.9%	39.9%	47.4%	.105	-.075
My spouse or partner helps me pay for college.	3.5%	2.8%	4.0%	.492	-.032
With money I earn.	41.7%	43.2%	40.2%	.520	.030
With a Pell Grant.	39.6%	50.7%	29.9%	<.001	.212
With Scholarships.	49.1%	50.7%	48.2%	.592	.025
With Loans.	35.2%	37.1%	33.5%	.415	.038
With a work study position.	6.5%	9.9%	4.4%	.020	.108
My employer is contributing.	1.5%	0.9%	2.0%	.354	.043
I am tuition exempt or using veteran's benefits.	5.7%	4.2%	6.8%	.233	-.055
Other.	3.3%	2.3%	4.4%	.231	-.056

As has already been noted, respondents could be grouped as being traditional or non-traditional aged college students. Analysis of the responses regarding ways to pay for college was completed for these groups (see Table 12). The percentages in the non-traditional student category appear to be disproportionate when viewed alongside the average response for the entire sample because of a lower count of informants, 63 versus 385 for traditional aged students.

Table 12. Means of Paying for College: Traditional versus Non-traditional Aged Students

Prompt	Sample	Trdtnl	Non-Trad	p Value	phi
My family helps me pay for college.	43.9%	51.2%	11.1%	<.001	-.280
My spouse or partner helps me pay for college.	3.5%	1.8%	14.3%	<.001	.234
With money I earn.	41.7%	40.0%	50.8%	.107	.076
With a Pell Grant.	39.6%	36.9%	46.0%	.166	.065
With Scholarships.	49.1%	52.5%	34.9%	.010	-.122
With Loans.	35.2%	34.0%	38.1%	.529	.030
With a work study position.	6.5%	7.0%	4.7%	.508	-.031
My employer is contributing.	1.5%	0.8%	6.3%	.001	.156
I am tuition exempt or using veteran's benefits.	5.7%	5.2%	6.4%	.706	.018
Other.	3.3%	3.1%	6.3%	.200	.061

There were four statistically significant differences in responses from traditional and non-traditional aged students. These were for financial assistance from family and from a spouse or partner, receipt of scholarships, and employer contributions. The pattern was logical. Traditional aged students were far more likely, with moderately strong effect, to receive financial support from their family ($p < .001$, phi = -.280). They were also more likely, with weak effect, to receive scholarships ($p = .010$, phi = -.122). Non-traditional aged students were more likely with moderate and weak effect, respectively, to receive financial assistance from a spouse or partner ($p < .001$, phi = .234) and to have an employer who contributed to the cost of college attendance ($p = .001$, phi = .156).

It was also possible to disaggregate the student respondents based on their relationship status. In the demographic section of the survey, informants were asked to classify their current standing in one of five categories. Those were: (1) single, (2) cohabiting with a partner, (3) married, (4) separated or divorced, and (5) widow/widower. The last two options were selected by very few respondents. Because of this, the second and third option were combined to form a married/cohabiting group which could be compared to the responses from parties who reported being single (see Table 13).

The comparison of means of paying for college by single and married/cohabiting students also produced logical findings. Single students were more likely, at statistically significant levels with moderately strong effect, to receive funds from their family to pay for studies ($p < .001$, phi = -.274). Married and cohabiting individuals were more likely, also at highly significant levels with moderately strong effect ($p < .001$, phi = .308), to receive help from a spouse or partner. The 0.3% of single persons who reported assistance from a partner was one party

out of 338 respondents. The response could denote several circumstances, a none-cohabiting partner or human error. Other significant findings were also easily understandable as singles were more likely to be scholarship recipients and married/cohabiting students were more likely to have an employer who contributed to their education. The significant finding for the category Other cannot be interpreted as the category was undefined.

Table 13. Means of Paying for College: Single versus Married/Cohabiting

Prompt	Combined	Single	Married/ Cohabit	p Value	phi
My family helps me pay for college.	45.4%	53.3%	21.6%	<.001	-.274
My spouse or partner helps me pay for college.	3.6%	0.3%	13.5%	<.001	.308
With money I earn.	41.4%	41.7%	40.5%	=.827	-.010
With a Pell Grant.	38.3%	36.1%	45.0%	=.092	.079
With Scholarships.	49.9%	53.0%	40.5%	=.023	-.107
With Loans.	34.5%	33.1%	38.7%	=.281	.085
With a work study position.	6.7%	6.2%	8.1%	=.488	.033
My employer is contributing.	1.6%	0.9%	3.6%	=.045	.095
I am tuition exempt or using veteran's benefits.	5.3%	4.4%	8.1%	=.136	.070
Other.	3.6%	2.1%	8.1%	=.003	.140

Note: The percentages for the entire cohort in the Combined column are different for this table as informant counts exclude responses of separated or divorced and widow/widower so the number of respondents for this comparison was 449, 338 singles and 111 married or cohabiting.

Analysis was also completed by the state in which informants attended college (see Table 14). However, due to a small sample size in NM results should be viewed with caution (see Table 6). For example individuals from Texas reported at a significantly higher rate, with weak effect ($p < .001$, phi = .178), that family members helped them pay for college. This is a comparison of eleven informants, 20% of all respondents from New Mexico, to 193 individuals from Texas, 43.9% of the state's respondent count. Similar to receiving assistance from family members, only eleven individuals from New Mexico selected loans as a way they were paying for college, compared to 152 individuals from Texas. This finding was significant at $p = .012$ also with a weak effect (phi = .117).

The results by state when rank ordered for the top five means of paying for college produce an interesting comparison (see Table 15). Responses from New Mexico are listed in the left-hand column and Texas on the right. The top five means of paying for college were the same in both states but their order and the volume of use differed. New Mexicans reported more frequently that they paid for college with their earnings and that they received Pell Grants and less frequently that they received scholarships. Approximately 9% more of the Texas informants were receiving scholarships and more than twice as many were receiving financial assistance from family. More Texas informants reported involvement with four of the top five means than New Mexicans with the exception being paying for college out of pocket. Based on these patterns, it appears that students at HSIs in Texas qualify for, as applicable, and employ a greater variety of means of paying for college.

Table 14. Means of Paying for College: Comparing Responses from New Mexico and Texas

Prompt	Sample	NM	TX	p Value	phi
My family helps me pay for college.	43.9%	20.0%	47.3%	<.001	.178
My spouse or partner helps me pay for college.	3.5%	9.1%	2.7%	.015	-.113
With money I earn.	41.7%	50.9%	40.4%	.139	-.069
With a Pell Grant.	39.6%	32.7%	40.2%	.287	.049
With Scholarships.	49.1%	41.8%	50.5%	.227	.056
With Loans.	35.2%	20.0%	37.3%	.012	.117
With a work study position.	6.5%	10.9%	6.4%	.213	-.058
My employer is contributing.	1.5%	3.6%	1.2%	.169	-.064
I am tuition exempt or using veteran's benefits.	5.7%	0%	6.4%	.054	.090
Other.	3.3%	0%	3.9%	.135	.069

Two means of paying for college for which there were statistically significant differences, receiving financial assistance from family and receipt of loans, have different placement in the top five for each state with students in NM reporting them at much lower rates. The final statistically significant comparison, assistance from spouses and partners, was reported more frequently by NM informants. There were weak effect sizes for all three of the significant differences (see Table 14). This was the case because of the difference in the sample sizes. There were only 55 respondents from NM which is reflected in the lower effect sizes.

Table 15. Rank Order of Means of Paying for College by State

New Mexico	Texas
With money I earn (50.9%).	With scholarships (50.5%).
With scholarships (41.8%).	With funds provided by family (47.3%).
With a Pell Grant (32.7%).	With money I earn (40.4%).
With loans (20.0%).	With a Pell Grant (40.2%).
With funds provided by family (20.0%).	With loans (37.3%).

Means of paying for college was also considered for Latinas, Latinos, and male and female non-Hispanics as distinct groups. Three-way Chi Squares were completed to make these comparisons although the small sample size in New Mexico made it impractical to also complete this analysis by state. The dependent variables in the analyses comparing responses from Latinas, Latinos, and non-Hispanic females and males were each of the means of paying for college with ethnicity as the independent variable which was controlled for gender. This resulted in non-significant findings for: (1) my family helps me pay for college, (2) my spouse or partner helps me pay for college, (3) with scholarships, (4) with loans, and (5) I am tuition exempt or using veteran's benefits. Two other responses could not be assessed as there were too many cells below the expected cell count for the analysis to be reliable. These were "My employer is contributing" with 50% of cells below the expected count and "Other" with 33.3% of cells below the expected count.

Statistically significant findings occurred as partial and main effects for: (1) with money I earn, (2) with a Pell

Grant, and (3) with a work study position. When comparing responses from individuals who identified as Hispanic to those who did not for "with money I earn" and controlling for gender, Latinos were more likely that non-Hispanic males, 52.4% to 35.1% respectively, to use money they earned to pay for college. This difference was significant at p = .021 with a weak effect size (phi = 0.175). Using a work study position to pay for college also had a partial effect although it was coupled with a main effect. Like for "with money I earn," the comparison of Latinas to non-Hispanic females was not significant but the comparison of responses from Latinos to those from non-Hispanic males was. While only 6.5% of male respondents reported work study, all of the Latinos, 100%, reported work study positions while 60.0% of the non-Hispanics did. This difference was significant at p < .001 with a moderately strong effect (phi = 0.296). The omnibus comparison of responses between the four groups, Latinas, Latinos, and non-Hispanic males and females, was significant at p = .006 with a small effect size (phi = 0.126).

Reliance on a Pell Grant showed significant results for all comparisons. The difference between responses from Latinas and non-Hispanic females, 61.9% to 38.1% respectively, was significant at p < .001 with a moderate effect (phi = 0.234). For males, the difference was 55.6% for Latinos to 44.4% for non-Hispanics resulting in a p value of .01 with a small effect (phi = .187). The overall comparison was also statistically significant at p <.001 with a moderately small effect (phi = .218).

Summary of Findings Regarding Paying for College

The responses received make a rank ordered listing of the way the students in the sample were funding college possible (see Table 15). Several of the statistically significant differences in responses from the two states are easily notable in this side-by-side comparison. Comparison of responses from female informants and their male peers resulted in one significant finding. Female respondents were more likely to report receiving assistance from their spouse or partner than men with a weak effect. Hispanics were more likely, at statistically significant levels, to be using Pell Grants and work study positions to pay for college with moderate and weak effect respectively. Comparisons by age of the student followed a predictable pattern. Traditional aged students were far more likely, with moderately strong effect, to receive financial support from their family. They were also more likely, with weak effect, to receive scholarships. Non-traditional aged students were more likely with moderate and weak effect, respectively, to receive financial assistance from a spouse or partner and to have an employer who contributed to the cost of college attendance. Single students were more likely, at statistically significant levels with moderately strong effect, to receive funds from their family to pay for studies. Married and cohabiting individuals were more likely, also at highly significant levels with moderately strong effect, to receive help from a spouse or partner. Analysis by state indicated Texas respondents were significantly more likely to report family members helped them pay for college and that they were taking loans, both with weak effect.

When broken out by gender and ethnicity, Latinas, Latinos, and female and male non-Hispanics showed significant differences regarding paying for college with money they earned, with Pell Grants, and with work study positions. A statistically significant finding, with weak effect, occurred between Latinos and non-Hispanic

males for paying for college "with money I earn" and for work study positions, with moderately strong effect. The strength of this difference likely contributed to the statistically significant difference with weak effect between the four subsets for work study even though there was not a partial effect between Latinas and non-Hispanic females. Reliance on a Pell Grant showed significant results for all comparisons. The difference in responses from Latinas and non-Hispanic females was significant at $p < .001$ with a moderate effect. For males, the difference resulted in a p value of .01 with a weak effect. The overall comparison was also statistically significant at $p < .001$ with a moderately small effect.

Discussion

With recent research highlighting disagreement among faculty, staff, and administrators at HSIs regarding the background and characteristics of Hispanic students attending the institutions (Preuss, et al., 2019; Preuss et al., 2020a), it is important to take an empirical approach to understanding this population. An accurate depiction of the work commitments of students at HSIs and how they are funding their education will facilitate creation and implementation of more nuanced and, potentially, more helpful programming to serve these students. It may also dispel some misconceptions about Hispanic/Latinx students.

Reports from as far back as 1994 (NCES) indicate 70% or more of undergraduates as working while in college. Davis' 2011 report noted that of nearly 20 million students enrolled into undergraduate study, 72% or over 14 million were employed. Carnevale, Smith, Melton and Price's work (2015) documented 72% or more of college students were employed from 1989 on although this figure decreased during the Great Recession. These figures are similar to the findings in the authors' investigation at HSIs in New Mexico and Texas (see Tables 2 and 16) indicating that, in general, students at HSIs are not more or less likely to work than their peers at other institutions across the nation.

For employed students, older reports (NCES, 1994) show 60% working part-time while 40% worked full-time (defined as 35 hours or more a week). The percentage of college students working full-time appears to have declined from that point as Carnevale, Smith, Melton, and Price (2015) reported figures in the range 32% to 36% from 1992 through 2008 and an additional decline to 26% engaged in full-time employment in 2012. They suggest, however, that the lower figure in 2012 may have been a result of the Great Recession. This teams' work produced similar outcomes at HSIs in 2018 with 75.7% of the students who were employed working part-time and 24.3% working full-time. While full time work was defined in slightly different ways in the studies, it appears that, in general, students at HSIs are also similar to their peers across the nation in respect to the percentage who work part-time and full-time. Yet, there were statistically significant differences when the sample was disaggregated by age, relational status, and the state in which the individual attended college.

Carnevale, Smith, Melton, and Price (2015) reported that mature students, defined as persons between the ages of 30 and 54, had a greater likelihood of working 40 hours a week or more. The same individuals were also more likely to report being married with dependent children (61%) compared to the younger students. These patterns align with statistically significant findings reported above and summarized in Table 16.

Table 16. Review of Key Findings

Work Commitment	69.4% working → 30.6% not working →
On and Off Campus	33.6% On → 66.3% Off →
<10 – 30 hours vs. >30 – 40+ hours	75.7% up to 30 hrs → 24.3% 30+ →
Traditional age	80.3% up to 30 hrs → 19.7% >30
Non-traditional age	51.4% up to 30 hours → 48.6% 30+ hours →

Statistically Significant Findings for Hours Worked

a. Traditional aged students versus non-traditional age ($p < .001$)	Traditional age Mode = 11-20 hours Mean Rank = 220.94	Non-traditional age Mode = >40 hours Mean Rank = 293.41
b. Single versus married/cohabiting ($p = .006$)	Single Mode = 11-20 hours Mean Rank = 215.62	Married/Cohabiting Mode = 11-20 hours Mean Rank = 253.55
c. Texas versus New Mexico ($p = .008$)	Texas Mode = 11-20 hours Mean Rank = 226.09	New Mexico Mode = >40 hours Mean Rank = 275.81

Statistically Significant Findings for Means of Financing College Study

Prompt	Groups Significantly More Likely to Report
a. My family helps me pay for college.	- Traditional aged students/ single students/ Texans.
b. My spouse or partner helps me pay for college.	- Females/ non-traditional aged students/ married and cohabiting.
c. With money I earn.	- Hispanic males.
d. With a Pell Grant.	- Hispanic/Latinx students.*
e. With Scholarships.	- Traditional aged students.
f. With Loans.	- Texans.
g. With a work study position.	- Hispanics/ Hispanic males.*
h. My employer is contributing.	- Non-traditional aged students.
i. I am tuition exempt or using veteran's benefits + Other.	- Too few cases for analysis.

Note: * indicates there was also a main effect for this prompt when comparing responses from Latinas, Latinos, non-Hispanic females, and non-Hispanic males.

Non-traditional aged students, persons 25 years of age and older, and married/cohabiting students were more likely to work a greater number of hours per week than their traditional aged and single colleagues. The data gathered from the students at the HSIs indicates there is collinearity for these variables, for example there were

almost the same percentage of informants in the non-traditional age and married/cohabiting subsets for informants from New Mexico. Thus, students at HSIs in New Mexico and Texas exhibit patterns that might be anticipated as the older students are more likely to have substantial work commitments and to be in established, cohabiting relationships. Whether this finding is a function of the students' age or station in life, having a need to advance training or complete some credential for continued success at work, or some other factors remains unknown and is worthy of further investigation. What is known, is that this is a third area in which the students at the HSIs appear to parallel national patterns.

Davis (2011) presents information about the work commitments of students by state albeit in ranges. Full-time work was reported for 20%-24.9% of college students in Texas and 25% or more in New Mexico (range in which NM was classified was 25% to 37%). Davis' definition of full-time employment was 35 hours a week or more. The overall figure for full-time work by students in the sample for this paper was 24.3% with full-time work defined as more than 30 hours a week. A total of 21.5% of the Texas students reported working full-time while 46.1% of the students in New Mexico did. It is likely that the lower threshold for full-time work, more than 30 hours a week versus 35 or more hours used by Davis, sorted a larger portion of the HSI sample into this category. Considering that caveat, Davis (2011) not listing an exact percentage, and the range in which New Mexico was classified by Davis extending up to 37%, the gap in percentages between the authors' study at HSIs and Davis' work may not be as pronounced as it initially appears. The economic conditions in New Mexico also had potential to impact this set of responses.

There are multiple measures that illustrate the prevalence of poverty in New Mexico. New Mexico ranks 47th out of the 50 U.S. States in regards to personal income (US Census Bureau, 2020). The national average of residents at or below the poverty level is 13% (Pew Research Center, 2019) but the overall poverty level in New Mexico is higher at 19.7%. That is also higher than the adjacent state, Texas, which has 14.7% of its residents at or below poverty level (Moskowitz, 2019; Center for American Progress, 2020). This impacts families in NM. In 2017, NM had the highest rate of child poverty in the United States (New Mexico Voices for Children, 2017). Poverty is also more prevalent among New Mexico's Hispanics. Nineteen percent of Hispanics in the United States live at or below poverty level (US Census Bureau, 2020c) but poverty among Hispanics/Latinx in NM exceeds both the national and overall NM state average; 24% Hispanic/Latinx New Mexicans live at or below poverty level (Moskowitz, 2019). That is approximately one-eighth of the state population that is Hispanic and living at or below poverty level. Rural New Mexico has been noted as having the highest poverty rate in the nation (Sapin, 2016) and a large portion of the state is classified as rural. Up to 99.7% of the land mass with 65% of the state's population (USDA, n.d.). All but one of the NM institutions attended by the informants for the authors' study were in rural areas. This and the levels of poverty in rural areas and among Latinx individuals in NM may have influenced the higher levels of work reported by New Mexico informants and it may account for the proportion of students who were working extended hours, 28.8% of the New Mexicans. This higher level matches Davis' findings. While further investigation is necessary, especially due to the small sample size in NM for this study, the findings suggest that work commitments among students at HSIs vary by state and the information presented about the economy of New Mexico suggests that the economic climate of the state impacts the need of students to work. Entities offering grant-funded student support may wish to take this into

account when establishing the upper limit of financial assistance permissible per student.

The methods employed by informants to pay for their education included informative and important patterns. These were related, primarily to the age of the student, relational status (already shown to have a close association to age), and ethnicity, overall and when disaggregated further by gender. Traditional aged and single students were more likely to receive assistance paying for college from their family at statistically significant levels than their non-traditional aged and married/cohabiting peers. This is likely a point at which two of the independent variables, being of traditional age for a college student and being single, are elements of a composite characteristic. These findings represent an historic pattern and are the opposite side of the coin for results reported by Carnevale, Smith, Melton, and Price (2015) where it was noted older students are more likely to work, work more hours, and have families to support thus establishing them as independent rather than dependent parties.

A similar very traditional pattern was noted for receiving financial assistance from a spouse or cohabiting partner to pay for college. Females, non-traditional aged, and married/cohabiting students were statistically more likely to report this pattern making this another potential cluster of variables that may be elements of a broader characteristic or stage in life. Non-traditional aged students were also more likely to have an employer contributing funds to pay for their education than traditional aged students. This may be related to an extended history with the employer or potential to meet a need for the employer should additional training be received. Older college students have also been reported to be more likely to work in managerial occupations where advanced training or a specific career credential may be required (Carnevale, Smith, Melton, & Price, 2015). Thus, some of the general and even traditional patterns of paying for college were found to be present at the HSIs in the sample and a rarer form of funding college education, employer contributions, also occurred along traditional lines.

Traditional aged students were statistically more likely to be receiving scholarships. This may be related to mature students being reported as pursuing certificates or associates degree at higher rates (Carnevale, Smith, Melton, & Price, 2015) as there are fewer scholarship opportunities in these areas and their enrolling at higher rates in community college and for-profit colleges where fewer scholarships are offered. Further, traditional aged students were reported to work in fast food/personal services positions at higher rates while older students reported worked in managerial occupations more frequently (Carnevale, Smith, Melton, & Price, 2015). Having a managerial position would also imply higher pay levels, moving individuals out of consideration for need-based scholarships. These factors could be at least part of the explanation for the non-traditional age students being less likely to report receiving scholarship funds.

Hispanics/Latinx informants were found to be more likely than non-Hispanics to use Pell Grants and work study positions to fund their education. Pell Grants are awarded based on personal financial need, the cost of attending college, and the proposed pattern of attendance for the individual (U.S. Department of Education, 2015). They are used by federal programs in the Catalog of Federal Domestic Assistance 84.031 category as an indication that an individual is a low-income student (U.S. Department of Education, 2014b). This aligns with the finding

regarding work study positions. The federal work study program is also a means of assisting students with financial need (U.S. Department of Education, 2014a).

It has been both hypothesized and assumed that minority students tend to come from low socio-economic (SES) status families meaning they have less financial support and rely more on loans and state and federal financial aid (Zhan, Xiang & Elliot, 2018). Researchers have focused on these differences between ethnic groups showing Hispanic students reporting lower median income while taking out more loans (Ma, Baum, Pender, & Libassi, 2018; Zarate, Saenz, & Oseguero, 2011; Zhan & Xiang, 2018; Zhan, Xiang, & Elliot, 2018). As the Hispanic/Latinx respondents from the HSIs were accessing programs for low-income students at significantly higher levels, it is possible to state that the Hispanic/Latinx students at the 14 HSIs in the sample came from lower socio-economic backgrounds than their non-Hispanic peers. This aligns with the findings of other researchers just noted and the economic conditions reported for the two states.

The Pew Research Center (2019) reported that Hispanics in the United States have a higher rate of poverty than the general population (nearly 150% of the general poverty rate). The rates for Hispanic/Latinx individuals in both New Mexico and Texas are also higher than the overall poverty rates. In New Mexico, 24% Hispanic/Latinx New Mexicans live at or below poverty level while the state average is 19.7% (Moskowitz, 2019). In Texas, 20.7% live at or below poverty level when the state average is 14.7% overall, 13.9% for Whites, and 9.8% for Asians (Center for American Progress, 2020). Thus, Hispanic students at the HSIs in New Mexico and Texas are entering higher education despite coming from lower socio-economic standing. While their presence is both positive and needed to advance equity in society and the workforce (NSF 2017; NSF 2018), coming from a lower SES background places them at a disadvantage. As Walpole found, "Low SES students engaged in fewer extracurricular activities, worked more, studied less, and reported lower GPAs than their high SES peers" (2003, p.45). They have also been shown to be likely to take fewer courses and "drop out altogether" (Choitz & Reimherr, 2013, p. 1). Even for those who persist to graduation, there are long-term impacts. "Nine years after entering college, the low SES students had lower incomes, educational attainment, and graduate school attendance than high SES students" (Walpole, 2003, p. 45). Reviewing and revising institutional financial aid and students support policy at Minority- (MSI) and Hispanic-Serving Institutions is recommended in light of the study's confirmation that Hispanic/Latinx students at HSIs in NM and TX are significantly more likely to come from low SES backgrounds and face the challenges with which this is associated.

The final statistically significant result for ethnicity was Hispanic males, Latinos, were more likely than non-Hispanic males to fund their education with money they earned. The listing of hours worked per week in Table 9 showed White men in the sample reported the lowest percentage of employment although percentages for working more than 40 hours a week were similar. An age differential between Latinx and non-Hispanic informants in the sample could have triggered the significant finding as older students are more likely to be independent of their parents, work higher level jobs, work full time, and earn more money than their younger peers (Carnevale, Smith, Melton, & Price, 2015). That was not, however, a cause for this finding.

The balance of traditional age to non-traditional age students was checked to determine if the Hispanic

student group might have included more students of non-traditional age, a circumstance that could influence the result found. That was not the case as non-traditional age students made up 15.9% of the sample, 15.1% of non-Hispanics and 16.9% of Hispanics (Preuss et al., 2020b).

The ratio of Hispanic to non-Hispanic males who were of non-traditional student age was also checked and there was insufficient difference to have triggered the significant finding. Hence, Latinx males at the HSIs in the sample were more likely than their non-Hispanic male peers to pay for college tuition and fees with money they earned. While an explanation for this pattern was not found, it is worthy of note as it represents a burden borne by this segment of the student population with the potential to impact their ability to persist in and complete college (Choitz & Reimherr, 2013; Walpole, 2003). As stated above, working more, a likely prospect should a student be attempting to pay for college out of pocket, can hinder academic success (Pike, Kuh, Massa, & McKinley, 2009; Walpole, 2013) and college attrition rates have also been negatively correlated with employment (Body, Bonnal & Giret, 2014; NCES, 1994). This finding and its implications for students persistence and success, including long-term economic success (Walpole, 2003), should also inform consideration of financial aid and student support policy and actions by leaders at MSIs and HSIs.

Students at HSIs in Texas were found to be more likely to take out loans to pay for college. There is no additional information from the survey that would help explain this finding. It also does not appear to relate to the outcomes of Carnevale, Smith, Melton, and Price's investigation (2015). They found that "young working learners tend to go to more selective institutions" (p. 32), by which they meant four-year colleges and universities, but the younger students who were working were distributed across community colleges and four-year state institutions for the entire sample and in Texas. The lower poverty rate in Texas, making qualification for a loan more likely, could have impacted this finding but it remains substantially without explanation making follow-on investigation necessary.

Conclusion

With 70% or more of students working while in college, understanding their work patterns at levels that extend beyond part-time and full-time employment trends is important. In total, the survey results produced a nuanced and immediately applicable description of work patterns and means of paying for college for students at HSIs in New Mexico and Texas. As a first-of-its-kind report, the findings require verification which the project team undertook in 2019 by deploying a second survey. Yet, the results reported above can inform programming for students at Hispanic-Serving Institutions in the region and the bordering states while also serving as thought-provoking material for faculty, staff, and administrators at HSIs across the nation.

The findings suggest that the majority of students at HSIs are working, a commitment that should be taken into account when planning educational programs. High numbers of working students dictate that the least time intensive and restrictive means of providing high-quality education opportunities should be given priority. They also dictate a need for flexibility in education calendars, schedules, and processes so that working students do not have to choose between education and employment. The second strong theme in the findings is the presence

of differences along ethnic lines which appear to be connected to socio-economic condition. This study's findings indicate that Hispanic/Latinx individuals are more likely than their peers to face multiple circumstances known to be barriers to completion of a college degree (Body, Bonnal & Giret, 2014; Choitz & Reimherr, 2013; Walpole, 2003). These factors should be primary concerns for individuals responsible for planning and facilitating the higher education opportunities at HSIs and for persons who establish scholarship, grant, and state and federal aid guidelines.

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References

Acevedo, F. (2020). PAC Men 2.0: A new approach to increasing male retention, persistence, and completion. 45th Annual TACHE Conference 2020. Sugar Land, Texas.

Bachmann, A., & Boes, S. (2014). Private transfers and college students' decision to work. *Economics of Education Review*, *42*, 34-42.

Body, K., M-D. Bonnal, L., & Giret. J-F. (2014). Does student employment really impact academic achievement? The case of France. *Applied Economics, 46*(25), 3061–3073.

Butler, A. B. Dodge, K. D., & Faurotem E. J. (2010). College student employment and drinking: a daily study of work stressors, alcohol expectancies and alcohol consumption. *J Occup Health Psychol*, *15*(3), 291-303.

Carnevale, A. P., Smith, N., Melton, M., & Price, E. W. (2015). Learning while earning: The new normal. Washington DC: Georgetown University Center on Education and the Workforce. Retrieved from https://cew.georgetown.edu/wpcontent/uploads/Working-Learners-Report.pdf

Carney, K. C. (2004). *Parent expectations of and involvement with their college student and a liberal arts college* (305168789). [Doctoral dissertation, University of Iowa]. ProQuest Dissertations & Theses Global. Retrieved from https://login.databases.wtamu.edu/login?url=https://search-proquest-com.databases.wtamu.edu/docview/305168789?accountid=7143

Center for American Progress. (2020). Talk poverty. Retrieved from: https://talkpoverty.org/state-year-report/texas-2018-report/

Chang, M. J., Denson, N., Sáenz, V., & Misa, K. (2006). The educational benefits of sustaining cross-racial interaction among undergraduates. *The Journal of Higher Education*, *77*(3), 430-455. DOI: 10.1080/00221546.2006.11778933

Choitz, V. & Reimherr, P. (2013). Mind the gap: High unmet financial need threatens persistence and completion for low-income community college students. Washington, D.C.: Center for Law and Social Policy. Retrieved from: https://eric.ed.gov/?id=ED544243

Clapp, L. (2019). The need to increase Hispanic representation in engineering. In Preuss, M. D., Rodin, J. C., Sosa, E. M., Ramos, J. D., Dorsett, C. R. & Burleson, C. R. *Hispanic-Serving Institutions in the south-*

central United States: A research report for Los Barrios de Amarillo. (pp. 29-30).Canyon, TX: West Texas Office of Evaluation and Research.

Colby, S. L. & Ortman, J. M. (2015). Projections of the size and composition of the U.S. population: 2014 to 2060, current population reports, P25-1143. Washington, D.C.: U.S. Census Bureau.

Davis, J. (2012). School enrollment and work status: 2011. *American Community Survey Briefs*. Washington, D.C.: U.S. Census Bureau.

Dundes, L., & Marx J. (2007) Balancing work and academics in college: Why do students working 10 to 19 hours per week excel? *J. College Student Retention, 8*(1), 107-120.

Ennis. S. R., Rios-Vargas. M., & Albert. N. G. (2011). The Hispanic population: 2010. 2010 Census Briefs. U.S. Department of Commerce Economics and Statistics Administration of the U.S. Department of Commerce.

Flores, A. (2017). How the U.S. Hispanic population is changing. Pew Research Center. Retrieved from http://www.pewresearch.org/fact-tank/2017/09/18/how-the-u-s-hispanic-population-is-changing

Flores, S. & Park, T. (2015). The effect of enrolling in a minority-serving institution for Black and Hispanic students in Texas. *Research in Higher Education, 56*(3), 247-276.

Fry, R., & Lopez, M. H. (2012). Hispanic student enrollments reach new highs in 2011. Pew Hispanic Center. Retrieved from http://www.pewhispanic.org/2012/08/20/hispanic-student-enrollments-reach-new-highs-in-2011/

Fuentes, F. (2019). Supporting Hispanic males in higher education. In Preuss, M. D., Rodin, J. C., Sosa, E. M., Ramos, J. D., Dorsett, C. R., & Burleson, C. R. *Hispanic-Serving Institutions in the south-central United States: A research report for Los Barrios de Amarillo*. (pp. 26-28). Canyon, TX: West Texas Office of Evaluation and Research.

Garcia, G. (2016). Complicating a Latina/o-serving identity at a Hispanic-Serving Institution. *Review of Higher Education, 40*(1), 117-143.

Garcia, G. (2017). Defined by outcomes or culture? Constructing an organizational identity for Hispanic-Serving Institutions. *American Educational Research Journal, 54*(1_suppl), 111S-134S.

Garcia, G., Ramirez, J., Patrón, O., & Cristobal, N. (2019). Constructing an HSI organizational identity at three Hispanic-Serving Institutions in the Midwest: Ideal versus current identity. *The Journal of Higher Education, 90*(4), 513-538.

Gates, R. (2018). *Having or serving: Perceptions of HSIs*. [Doctoral dissertation: University of Nevada, Las Vegas]. ProQuest Dissertations & Theses Global.

Hamilton, S. F., & Sumner, R. (2017). High school students' jobs: Related and unrelated to school. *Peabody Journal of Education, 92*(2), 222-235.

Hispanic Association of Colleges and Universities. (2019). HACU lists of Hispanic-Serving Institutions (HSIs) and emerging HSIs 2017-2018. https://www.hacu.net/hacu/HSIs.asp

Internal Revenue Service. (n.d.). Identifying full-time employees. https://www.irs.gov/affordable-care-act/employers/identifying-full-time-employees

Kane, S. T., Healy, C. C., Henson, J. (1992). College students and their part-time jobs: Job congruency satisfaction, and quality. *Journal of Employment Counseling, 29*, 189-144.

Kolb, S.M. (2012). Grounded theory and the constant comparative method: Valid research strategies for

educators. *Journal of Emerging Trends in Educational Research and Policy Studies*, *3*(1), 83-86.

Laerd Statistics. (2017). Chi-Square test for association using SPSS statistics. Retrieved from https://statistics.laerd.com/spss-tutorials/chi-square-test-for-association-using-spss-statistics.php

Leitner, P., Khallil, M., & Ebner, M. (2017). Learning analytics in higher education: A literature review. In a Pena-Ayala (Ed.). Learning Analytics: Fundaments, Applications, and Trends: a View of the current State of the Art to e-Learning, (pp.1-23). *Springer International Publishing*. DOI: 10.1007/978-3-319-52977-6_1.

Lopez, R. M. (2020). Creando comunidad: Growing and sustaining a Latina mentoring network. 45th Annual TACHE Conference 2020. Sugar Land, Texas.

López Turley, R., & Desmond, M. (2011). Contributions to college costs by married, divorced, and remarried parents. *Journal of Family Issues, 32*(6), 767-790.

Ma. J., Baum. S., Pender. M., & Libassi .C. (2018). Trends in college pricing 2018. New York, New York: The College Board.

McNall, L. A., & Michel, J. S. (2017). The relationship between student core self-evaluations, support for school, and the work-school interface. *Community, Work & Family*, *20*(3), 253-272.

Min, S. & Taylor, M., G. (2018). Racial and ethnic variation in the relationship between student loan debt and the transition to first birth. *Demography*, *55*, 165–188. https://doi.org/10.1007/s13524-017-0643-6.

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

Nagy, S., Whallun, C. & Kallus, R. (2018). Enrollment in Texas public schools 2017-2018. Austin, TX: Texas Education Agency.

National Center for Education Statistics. (n.d.). Fast facts: Enrollment. Retrieved from: https://nces.ed.gov/fastfacts/display.asp?id=98

National Center for Education Statistics. (1994). Undergraduates who work while enrolled in postsecondary education: 1989-90. Washington, D.C.: U. S. Department of Education Office of Educational Research and Improvement.

National Center for Education Statistics. (2006). Profile of undergraduates in U.S postsecondary education institutions: 2003-04 with a special analysis of community college students statistical analysis report. Washington, D.C.: U. S. Department of Education.

National Center for Education Statistics. (2017). The condition of education 2017. Chapter: 4/postsecondary education section: Characteristics of postsecondary students. Washington, D.C.: U. S. Department of Education.

National Center for Education Statistics. (2018). The condition of education 2018. Retrieved from: https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018144

National Center for Education Statistics. (2019). Status and trends in education of racial and ethnic groups – indicator 6: Elementary and secondary enrollment. Retrieved from: https://nces.ed.gov/programs/raceindicators/indicator_rbb.asp

National Science Board. (2018). Science and Engineering indicators. Washington, D.C.: National Science Foundation.

National Science Foundation. (2012). STEM Education Data. Retrieved from:

https://nsf.gov/nsb/sei/edTool/explore.html#college

National Science Foundation. (2017). Dear colleague letter: Improving undergraduate STEM education in Hispanic Serving Institutions (HSIs). Retrieved from: https://nsf.gov/pubs/2017/nsf17092/nsf17092.jsp

National Science Foundation. (2017). Women, minorities, and persons with disabilities in science and engineering. Washington, D.C.: National Center for Science and engineering statistics directorate for social, behavioral and economic sciences.

National Science Foundation. (2018). National Science Board, science & engineering indicators 2018. Chapter 3 science and engineering labor force. Retrieved from: https://www.nsf.gov/statistics/2018/nsb20181/report/sections/science-and-engineering-labor-force/women-and-minorities-in-the-s-e-workforce

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. M., Sparks, P. J., & Hernandez, E. A. (2011). Latino access to community colleges and Hispanic-Serving Institutions: A national study. *Journal of Hispanic Higher Education, 10*(1), 18-40.

Ortega, G. (2020). Examining the intersection of race and athletics for Latino male student-athletes. 45th Annual TACHE Conference 2020. Sugar Land, Texas.

Pew Research Center. (September 16, 2019). U.S. Hispanic population living in poverty, 2017. Retrieved April 20, 2020 from https://www.pewresearch.org/hispanic/chart/u-s-hispanics-poverty/

Pike, G. R., Kuh, G. D., & Massa-McKinley, R. C. (2008). First year students' employment, engagement, and academic achievement: Untangling the relationship between work and grades. *NASPA Journal*, 45, 560-582.

Poorterman, J. H. G., Dikkes, B. T. & Brand, H. S. (2009). Dental hygiene students' part-time jobs in dental practices in the Netherlands. *International Journal of Dental Hygiene*, *8*, 143-146.

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*, *6*(2), 202-230.

Preuss, M., Sosa, E., Rodin, J., 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.

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

Rodríguez Amaya, L., Betancourt, T., Collins, K. H., Hinojosa, O., & Corona, C. (2018). Undergraduate research experiences: mentoring, awareness, and perceptions—a case study at a Hispanic-Serving Institution. *IJ STEM Ed, 5*(9). https://doi.org/10.1186/s40594-018-0105-8

Rodin, J. C. (2018). Self-reported familial support and expectations amongst students at Hispanic-Serving Institutions. Texas A&M University System Pathways Conference at West Texas A&M University, Canyon, TX.

Ryan, C. L., & Bauman, K. (2016) Educational attainment in the United States: 2015 population characteristics current population reports. Washington, D.C.: United States Census Bureau.

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

Stepler, R. & Lopez, M. H. (September 8, 2016). U.S. Latino population growth and dispersion has slowed since onset of the Great Recession. Washington, DC: Pew Research Center. Retrieved from: https://www.pewresearch.org/hispanic/2016/09/08/latino-population-growth-and-dispersion-has-slowed-since-the-onset-of-the-great-recession/

United States Census Bureau. (2011). The Hispanic population: 2010. 2010 Census Briefs. Retrieved from: https://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf

United States Census Bureau (2012). About Hispanic origin. Retrieved from: https://www.census.gov/topics/population/hispanic-origin/about.html

United States Census Bureau. (2012, August 6). Profile America: Facts for features. Retrieved from https://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb12-ff19.html

United States Census Bureau. (2020). QuickFacts: New Mexico. Retrieved from: https://www.census.gov/quickfacts/NM

United States Census Bureau. (2020). QuickFacts: Texas. Retrieved from: https://www.census.gov/quickfacts/fact/table/TX/POP010210

United States Census Bureau. (2020). QuickFacts: United States. Retrieved from: https://www.census.gov/quickfacts/fact/table/US/PST045219

United States Department of Agriculture. (n.d.). New Mexico: Three rural definitions based on census places. Retrieved April 20, 2020 from https://www.ers.usda.gov/webdocs/DataFiles/53180/25586_NM.pdf?v=0

United States Department of Education. (2014). Programs: Federal work study program. Retrieved from: https://www2.ed.gov/programs/fws/index.html

United States Department of Education. (2014). Programs: Title III Part A programs – strengthening institutions. Retrieved from: https://www2.ed.gov/programs/iduestitle3a/eligibility.html

United States Department of Education. (2015). Programs: Federal Pell Grant program. Retrieved from: https://www2.ed.gov/programs/fpg/index.html

Valencia, L. (September 14, 2017). Texas demographic trends, characteristics, and projections. Austin, TX: Texas Demographic Center. Retrieved from: https://demographics.texas.gov/Resources/Presentations/OSD/2017/2017_09_14_DepartmentofSavingsandMortgageLending.pdf

US Small Business Administration. (n.d.). Hire and manage employees. https://www.sba.gov/business-guide/manage-your-business/hire-manage-employees

Walpole, M. (2003). Socioeconomic status and college: How SES affects college experiences and outcomes. *The Review of Higher Education*, *27*(1), 45-73.

Zarate, M. E., Saenz, V. B., & Oseguero, L. (2011). Supporting the participation and success of Chicanos in higher education. In R. R. Valencia (Ed.) *Chicano school failure and success: Past, present, and future*. (pp. 101-122). Taylor & Francis Group.

Zhan, M. & Xiang, X. (2018). Education loans and asset building among black and Hispanic young adults. *Children and Youth Services Review*, 121-127.

Zhan, M., Xiang, X., & Elliott III, W. (2018). How much is too much: Educational loans and college graduation. *Educational Policy*, *32*(7) 993–1017.

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