# Utilizing a Cultural Wealth Framework to Examine First-Generation Resources Available at Public Universities in Texas

Ву

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#### Abstract

In a country facing unprecedented income inequality, higher education can become an important tool for equity. Historically, postsecondary institutions are not built with the diversity of student experience in mind and therefore are not a space where all can achieve. Firstgeneration and low-income students face unique obstacles that contribute to lower persistence rates, in part due to higher education undervaluing their social capital. The purpose of this study is twofold, first to identify best practice interventions that lead to first-generation students' persistence in higher education and second, to compare the best practices standards to the strategies being deployed by the public, four-year universities in Texas. The best practices identified in the literature review are organized using critical race theorist TJ Yosso's Community Cultural Wealth framework, categorizing the practice in one of six forms of capital: aspirational, linguistic, familial, social, navigational, and resistance. The best practice rubric was used to conduct content analysis on each of the 37 public universities websites and social media accounts, when applicable. The results showed there is still ample room for improvements in the supports provided by public Texas universities, which is evident by the consistently low six-year graduation rates. There are some institutions exceeding in specific areas and overall flagship institutions of university systems typically provide stronger offerings to their first-generation students. This research was completed in a time of turbulence, in the wake of the Coronavirus pandemic, where universities are deploying new and creative services to stay connected with their students. Now, more than ever, it is crucial for universities to support students in ways that feel culturally affirming.

## **About the Author**

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#### **CHAPTER 1**

#### Introduction

First-generation college students make up 56% of all undergraduate students enrolled in the United States (RTI International, 2019a). Despite record enrollment numbers, first-generation students are not finding the same success completing their postsecondary programs. A 2019 longitudinal study from the National Center for Education Statistics found only one in five first-generation students attained a bachelor's degree with in six years of entering college; meanwhile, one in two continuing-generation students attained a bachelor's degree within six years (RTI International, 2019b).

There are several definitions of "first-generation" commonly used in higher education research. The Center for First-Generation Student Success, a research and innovation initiative from the National Association of Student Personnel Administrators (NASPA), notes that the most defining thing about first-generation students is the term, "first-generation", implies "a student may lack the critical cultural capital necessary for college success because their parents did not attend college" (The Center, 2017). The National Center for Education Statistics (NCES) defines a first-generation student (hereinafter referred to as "FG" or "FGS") as "enrolled in postsecondary education and whose parents do not have any postsecondary experience" (Redford & Hoyer, 2017, p. 3). While a continuing generation student (hereinafter referred to as "CG" or "CGS") is an individual who is enrolled in postsecondary education who has at least one parent with a postsecondary credential (Redford & Hoyer, 2017). The federal government uses this definition to determine eligibility for established first-generation supports such as TRiO Programs and Pell Grants. For the purposes of this research, the federal definition of FGS will be utilized.

## **Barriers Faced by First-Generation Students**

The differences between FGS and their CG peers span beyond the differences in familial education attainment. There are notable differences in demographics and academic histories between the two groups of students that play a significant role in reinforcing systemic barriers faced by FGS.

FGS are more likely to be minorities, 51% of all FGS are students of color while students of color make up only 30% of CGS. FGS are also far more likely to come from low-income families (Redford & Hoyer, 2017, p. 6). The median household income for a FG family is \$41,000 a year, compared to \$90,000 for a CG family (RTI International, 2019a). The differences in economic status are exacerbated at the lowest income levels, 27% of FG families make less than \$20,000 a year, while 6% of CG families make less than \$20,000 a year (Redford & Hoyer, 2017, p. 6).

FGS are often balancing education with other familial and financial obligations, leading to 60% of FGS enrolling part time. The obligations FGS face also influence how they engage with employment opportunities. FGS are just slightly more likely to work than CGS (66% of FG, 61% of CG); however, they are working more hours per week. The median hours worked for FGS is 20 per week, compared to 12 per week for CGS (RTI International, 2019c).

FGS are entering the postsecondary environment with less exposure to and preparedness for the academic rigor of higher education. Overall, FGS are more likely to graduate high school with a below average GPA. Only 77% of FGS had a GPA greater than 2.0 (a "C" average), compared to 91% of CG. Moreover, FGS are 12% less likely to complete an advanced-level math course while enrolled in high school (RTI International, 2019b).

The unresolved barriers FGS face when entering higher education often compound, resulting in FGS terminating their higher education pursuit. FGS are 29% less likely to complete their postsecondary programs than their CG peers (RTI International, 2019b). Failure to attain a postsecondary credential is detrimental to FGS's future success. A 2019 study from E3 Alliance, a non-profit education collaborative, found that a young adult has only a 12% chance at earning a livable wage if they did not attain a postsecondary credential within six years of graduating from high school ("Pathways to Prosperity", 2019). Low postsecondary attrition among FGS perpetuates cycles of systemic poverty many FGS have faced all their life.

In 2017 NCES published a longitudinal study that assessed FG and CGS's postsecondary aspirations versus outcomes; the results highlighted gaps between FG and CG educational aspirations. Surprisingly, the aspirations for attaining a bachelor's degree were consistent between FGS and CGS (both at 36%). The aspiration gap emerged from differences in FGS and CGS expectations to earn advanced degrees, 49% of CGS compared to 32% of FGS aspired to earn a master's degree or higher (Redford & Hoyer, 2017, p. 7). When looking at the postsecondary outcomes of this cohort, NCES found that FGS attained their planned postsecondary goals less often than their CG peers. The survey, administered in 10<sup>th</sup> grade, showed 68% of FGS and 85% of CGS aspired to attain a bachelor's degree or higher. After ten years, 23% of FGS and 55% of CGS attained a bachelor's degree or higher (Redford & Hoyer, 2017, p.11).

## **Cultural Capital and a New Assets-Based Approach**

In the educational system, FGS are often viewed through a deficits-based lens.

Traditional supports deployed in the secondary and postsecondary space focus on teaching or training FGS on ideologies valued by the dominant groups in society, these ideologies are

considered "cultural capital". Over the last five decades, there has been extensive research around the role of cultural capital in the success of students in the postsecondary environment. Sociologist Pierre Bourdieu first used the term cultural capital in 1977. Bourdieu conceptualized cultural capital as "an accumulation of cultural knowledge, skills, and abilities possessed and inherited by privileged groups in society" (Yosso, 2005, p.76). In other words, privileged groups (generally white, educated, upper class) innately possess cultural capital, while marginalized or non-dominant groups are deficient. Bourdieu believed that individuals could only acquire cultural capital through formal education if they did not inherit capital through familial tradition. Utilizing this concept of cultural capital, future theorists perpetuated a deficits-based approach to understanding why non-dominant groups were not achieving the same levels of success as dominant groups in the postsecondary setting (Yosso, 2005).

Traditional supports are compensatory strategies, looking at skills FGS lack and providing interventions to develop these skills (Yosso, 2005). Examples of skills developed by compensatory supports include: organizational skills, study habits, financial literacy, public speaking, networking, and resume building. While these skills may have benefits, they are not adequately addressing FGS's barriers that affect attrition rates. Rising research suggests, FGS persistence can be improved through leveraging the assets they bring with them to the education setting.

Theorist TJ Yosso critiqued Bourdieu's work in her 2005 research. Yosso asserted that cultural capital is more aptly "cultural knowledge, skills and abilities *valued* by privileged groups in society" (p. 76). Bourdieu's understanding ignores forms of cultural capital not possessed by dominant groups, discrediting any value of the ability, skills, or cultural knowledge held by the non-dominant groups. Yosso identified six forms of non-dominant group capital in the

Community Cultural Wealth (CCW) framework. CCW includes six forms of capital: (1) aspirational, the ability to create and sustain goals for the future, even when faced with adversity; (2) linguistic, the ability to speak in multiple languages or styles and the ability to switch between them depending on the audience; (3) familial, the cultural knowledge and history a student carries from their family and community; (4) social, the social networks a student possesses and can create to lean on for support; (5) navigational, the skills amassed while maneuvering through social institutions that were not designed for them; (6) resistance, knowledge and skills developed while they identify, challenge, and seek to reform oppressive structures in society (Yosso, 2005, p.77-80). For education policy makers, the CCW framework creates opportunity to identify and leverage FGS assets when implementing and evaluating targeted interventions.

## **Research Purpose**

The purpose of this research is to describe the assets-based policies, programming, and supports provided to FGS by public, four-year universities in Texas targeting college persistence. FGS persisted through high school, navigated their way through college admissions, often after completing entrance exams and financial aid documentation, to enroll in a college community where they still often encounter classism or other forms of oppression. FGS are subject to inaccurate assumptions about their postsecondary preparedness and/or commitment to their postsecondary goals (Means & Pyne, 2017, p.907). Programs offered by universities to support students as they navigate through higher education, such as tutoring services or career-planning, are viewed as an auxiliary resource for *most* students. These resources are often pushed on FGS "explicitly to prevent failure" (Macias, 2013). This research seeks to identify innovative and

inclusive best practice interventions offered at public universities that amplify the assets FGS possess upon postsecondary enrollment.

#### **CHAPTER 2**

#### **Literature Review**

## **Chapter Purpose**

The purpose of this chapter is to present a comprehensive review of research on bestpractice interventions targeting FGS retention. Emerging research targeting postsecondary
retention focuses on assets-based approaches to sustain FGS enrollment. Universities can
leverage students' assets and lived experiences by creating and expanding the conditions in
which they have been successful (Morales, 2014). Yosso's model of Community Cultural Wealth
provides structure to describe and categorize the various types of assets students bring with them
to the postsecondary space (Yosso, 2005). Programs and policies aimed at amplifying various
aspects of cultural wealth fall into the following categories: aspirational capital, linguistic capital,
familial capital, social capital, navigational capital, and resistance capital. The following sections
of this chapter present the scholarly research on the six categories of assets and associated
subcategories and concludes with the presentation of the conceptual framework.

## **Category 1: Aspirational Capital**

Many FGS and their families possess immense amounts of aspirational capital.

Aspirational capital speaks to an individual's ability to persist through barriers and challenges while maintaining hopes and dreams for the future, creating a "culture of possibility" (Yosso, 2005, p. 77). FGS aspire to achieve success that surpasses the achievements of their families (Lawton-Sticklor, 2018). Interventions such as advising, pre-college programs, and inclusive curricula expand students' awareness and scope building on their innate aspirational capital.

## Advising

Academic advisors can play a key role in supporting student persistence in higher education. Advising is effective when "students receive guidance that reflects their needs and incorporates the knowledge of campus programming and bureaucratic practices" (Swail et al., 2003, p. 100) While academic advising is a mainstay resource at universities across the country; not all advising programs are the same. Researchers Museus and Ravello argued that, to maximize effectiveness, institution leaders "must have a better understanding of the characteristics of advisors and advising that foster or hinder success" (2010, p. 48). Success of academic advising relies on the quality of relationships advisors build with their students.

One way to bolster the relationship between the advisor and the student is for the advisor to deploy appreciative advising, a popular advising model that first focuses on "disarming" the student where the advisor strives to be welcoming and inviting (Miller & Irons, 2014, p. 64). Focusing on the relationship first, will help students feel more comfortable and confident to come to their advisor when needs arise. Advising relationships are most successful when they are in person, and the relationship is *humanized* (Museus and Ravello, 2010, p. 53). The humanizing occurs when advisors draw from their own perspectives and histories, normalizing and relating to the barriers students face (Museus and Ravello, 2010; Miller and Irons, 2014).

Research shows the effects of advising are not universal. A 2012 random control trial from Schwebel et al., selected student from all backgrounds and academic statuses to participate in proactive, intrusive, advising. The researchers found that, while the students who participated in intrusive advising graduated at a higher rate, the difference was statistically insignificant. In intrusive advising, the advisor anticipates the needs the student will face and proactively contacts the student, providing on going monitoring of long-term goals (Molina & Abelman, 2000). Other

research has shown intrusive advising is an effective method to support academically at-risk students, such as first-generation students. Molina and Abelman's study found that at-risk students who participated in the *most intrusive* form of advising had the largest gains, increasing their GPA by nearly 9% (2000, p. 12). Advising was considered most intrusive when personal contact was required and the student shared in the responsibility to problem solve and make decisions (2000, p. 13).

## Pre-college Programs

Summer Bridge Programs are another commonly deployed intervention, targeting students early to encourage persistence. Bridge programs can increase student's sense of belonging and provide an extra opportunity for FGS to acclimate to university. During the Bridge program, students can explore the campus, register for classes, and learn about academic resources on campus (Engle et al., 2006, p. 6). Odeleye and Santiago (2019) summarize that, "Bridge programs are designed to address the personal and inhibiting institutional factors of undergraduate students as they transition into college" (p. 36). Odeleye and Santiago reviewed studies of four Summer bridge program, empirical data suggest that the bridge programs had a positive effect on participants academic readiness and persistence (p. 41). More importantly, students who participate in summer bridge programs report feeling more confident and prepared for their postsecondary career (Engle et al., 2006, p. 28).

In addition to programs provided by the university, there are federal programs in place to bridge the gap between high school and postsecondary that give a strong foundation to FGS, supporting their persistence. Gaining Early Awareness and Readiness for Undergraduate

Programs (GEAR UP) and Upward Bound are two federal programs that operate local programs across the country. GEAR UP uses a cohort model to work with FG (or low income) students

from 7<sup>th</sup> grade through the first year of college, while Upward Bound deploys an intensive 19-month program where FGS participate in weekend courses and a six-week summer program on a college campus. (Engle et al., 2006) GEAR UP and Upward Bound aim to improve college knowledge for FGS and their families through creating college readiness pathways thorough scaffolding programming that provides mentoring, tutoring, and opportunities to engage families in college preparation (Sanchez et al., 2018). FGS who participate in GEAR UP are as likely to persist in postsecondary education as their CGS peers (Sanchez et al., 2018).

#### Inclusive Curriculum

Assets-based pedagogy (ABP) is a teaching competency grounded in viewing students' cultural differences as strengths (López, 2017). Instructors who are skilled at ABP practice "cultural content integration" in all aspects of their lesson planning. The first step in reaching cultural content integration is "critical awareness". At critical awareness, teachers understand the socio-historical influences that impact FGS's academic trajectories. Once instructors reach critical awareness they develop "cultural knowledge", where they begin to nurture students' growth by building upon students' prior knowledge. Teachers transition to cultural content integration when they incorporate topics that validate students' experiences (López, 2017, p.193).

One effective tactic of cultural content integration is incorporating academic works and contributions made from people with various backgrounds to everyday instruction. This provides opportunities for marginalized FGS to learn from individuals who share some part of their identity, expanding their scope of what is possible for them to achieve (López, 2017, p. 201). To support FGS, all teachers should be trained in ABP and should revise their lesson plans through an ABP lens, without widespread integration and adoption ABP can be reduced to a celebration

of diversity rather than a means of achieving cultural equality (López, 2017, p. 196). The research shows that ABP is most effective when it is used by teachers with high expectations of their students, who believe their students will achieve when provided high quality, relevant, instruction (López, 2017, p. 205). Through layering high expectations with thoughtful, culturally responsive lessons, instructors push FGS to realize their potential, reinforcing their aspirational capital, and encouraging setting goal for the future.

## **Category 2: Linguistic Capital**

In this context, linguistic capital refers to an individual's ability to communicate in more than one language or style (Yosso, 2005). Linguistic capital is demonstrated in students who are bilingual, multilingual, or skilled in code switching. Individuals with great code-switching skill are able to alter their language, dialect, or mannerisms based on the social class and race of their audience. More importantly, they can perceive the appropriate times to alter their communication style (Gray et al., 2018). Traditional deficits-based approaches seek to eliminate the linguistic and cultural practices minority and FGS hold and replace them with practices preferred by the dominant group (Paris, 2012, p. 93). In effort to combat the dominant group preferences, postsecondary institutions may focus on cultural competence rather than cultural assimilation, where they provide opportunities for students to "appreciate and celebrate their cultures of origin while gaining knowledge of and fluency in at least one other culture," honing their codeswitching skills (Ladson-Billings, 2014, p.75). Universities can leverage certain pedagogical practices and use inclusive communication to build on FGS's linguistic capital.

### Pedagogical Practices

Universities can support their FGS by embracing culturally sustaining pedagogies that are responsive to the experience of FGS and affirm the cultural or linguistic competence of their

home community while providing access to the dominant cultural competencies. (Paris, 2010). The goal of such pedagogies is to support multiculturalism and multilingualism for FGS. (Paris, 2010, p.96). Learning communities are an example of a pedagogical practice that can support FGS.

Learning Communities (LC) are a strategy often used in the postsecondary setting that have positive effects on FGS retention rates (Markle & Stelzriede, 2020; Miller & Irons, 2014). In LC, students are placed in cohorts with other students who have similar academic goals to aid in developing a community amongst the students (Markle & Stelzriede, 2020). LC can bridge the gap between student's home lives and their academic lives, supporting the transition for FGS. LC create a "school home" environment, effectively a micro-community within the larger school community, that encourages group ownership, care, connection, and accountability (McIntosh & White, 2006).

In an LC, the students share the responsibility of teaching and learning from one another rather than solely relying on instruction from the professor. The students are encouraged to share their unique perspective, influenced by their cultural history and experience, to improve the community's learning (Miller & Irons, 2014, p. 171). LC can also serve to protect the capital possessed by FGS by creating an environment where FGS can work with their peers to achieve common goals in fields that may be less accessible to the FGS as an individual (Miller & Irons, 2014, p. 172). Universities that encourage or require the use of LC for FGS or using other culturally sustaining pedagogies provide more opportunities for student's linguistic capital to support FGS attrition.

#### Inclusive Communication

Another strategy for universities to preserve student's linguistic capital is to utilize inclusive communication with FGS and their families. Universities must recognize that student's families are key stakeholders in FGS's education and should work to bridge communication gaps caused by differences in language or literacy (Rincón & Hollis, 2020; Garrison & Gardner, 2012). Universities should utilize newsletters, family programs, and other methods of communication to keep the family engaged and aware throughout their student's postsecondary education (Rincón & Hollis, 2020, p. 242).

Materials and information shared with FGS should also use inclusive and culturally appropriate language to account for linguistic and class differences that exist between FGS and CGS. Universities and instructors can write in terms of communication and collaboration, preserving FGS's identity by establishing interdependent norms that place emphasis on group learning, team-based projects, and strong peer relationships (Pratt et al., 2019). For many minority FGS who come from collectivist backgrounds, using interdependent or collaborative language will resonate with their desire to prioritize group goals over individual accomplishments, making the information more easily digestible (Pratt et al., 2019, p. 113). By overtly embracing the differences in FGS's communication styles and providing ample options to send and receive information, universities can support FGS and their families to feel informed and welcomed into the postsecondary space.

### **Category 3: Familial Capital**

The wealth of FGS with great familial capital may span from relationships fostered inside of the immediate and extended family structures to relationships within community setting (including religious activities and sports/recreation) (Yosso, 2005). This form of capital is rooted

in culture and tradition, it acknowledges important and valuable lessons are passed through generations (Yosso, 2005). Universities can tap in to FGS's familial capital through promoting civic and familial engagement.

## Civic Engagement

Many FGS enter the postsecondary setting with unresolved "achievement guilt", where they feel guilty for the academic opportunities, they have that were not available to other members of their family (Pratt et al., 2019, p. 114). Research from Covarrubias & Fryberg found that when FGS are asked to reflect on an incident when they have helped their family or community, they find value in their contributions and the impacts of achievement guilt are lessened (2015, p.462). FGS also feel responsible for sharing information and support to younger members of their family as the first person to enroll in higher education, despite not necessarily having all the information they need to feel confident in their education experience (Gist-Mackey, 2018, p.66). Universities can support their FGS by providing internships, volunteer opportunities, and work-study positions that engage their home community.

Internships, volunteer opportunities and work-study positions can all be considered high impact summer activities, providing discipline or career related experience, and have a positive influence on students' retention (Ro et al., 2020). Provision of such programs isn't effective on its own, fewer FGS take advantage of the university's summer programming offers than their CGS peers, likely due to many FGS's competing priorities of work and familial responsibilities and potentially a lack of awareness of the importance of these activities (Ro et al, 2020, p. 3). University advisors and faculty should provide direct support to FGS to encourage them to apply for the programs, to reduce some of the barriers faced by FGS and increase the number taking advantage of university programs (Ro et al, 2020, p. 15). Universities could go one step further

and reserve a standard percent of positions specifically for FGS, making it more likely for them to be placed if they apply (Olson-McBride et al., 2016).

## Family Engagement

A study from Roksa and Kinsley found that family support was an important predictor of student success and persistence because it promotes psychological well-being and encourages student engagement (2018, p. 431). FGS's educational identity is driven by their desire to have better job opportunities than their family who did not go to college and are unhappy with their work (Garrison & Gardner, 2012, p. 38). FGS draw on their family for strength and inspiration and many hope to become role models to their younger family members. University faculty and administrators can learn valuable information and insight to working with FGS from understanding their familial relationships.

Lawton identifies two important reasons why educators should pay attention to familial capital as a form of family capital. First, it helps paint a wholistic picture of the support the student has in school and out of school. Families often cater to the emotional needs of FGS despite the family having vastly different education experiences. Second, educators may realize that the familial capital was a stronger motivator in persistence than other forms of support (2018). Lawton believes educators should seek this information from their students to broaden their understanding of different ways families could be involved in, or support, their FGS's academics (2018, p.151).

### Category 4: Social Capital

Like familial capital, social capital is rooted in relationships. An individual who possesses social capital has established networks of people and community resources that support them while they maneuver through various obstacles (Yosso, 2005). The network of

social support FGS create builds their sense of belonging giving them the "sensation of connectedness, the experience of mattering or feeling cared about, accepted, respected, valued by, and important to the group (e.g., campus community) or others on campus (e.g., faculty, peers)" (Strayhorn, 2019, p. 3). For decades researchers have tied students' sense of belonging and social relationships to postsecondary achievement and retention (Means & Payne, 2017; Strayhorn, 2012; Swail et al., 2003; Tinto, 1979; Tinto, 1998). Social capital can be developed through relationships with faculty, relationships with peers and participation in extracurricular activities.

### Faculty Relationships

Relationships with faculty are an important factor of FGS learning and persistence; however, FGS are less likely to interact with faculty members than their CGS peers (Ro et al, 2020, p. 5). FGS may feel reluctant to contact faculty members because they believe the faculty is too busy, too stressed, or uninterested in their development (Means & Payne, 2017; Tobolowsky et al., 2020). Thus, FGS often feel confused and unsupported when they are confronted with problems since their families lack college-going experience and they do not feel comfortable connecting with faculty (Tobolowsky et al., 2020, p. 275). Universities and faculty can take steps to build relationships with FGS early, so they have established trust when issues arise.

Tobolowsky at al. (2020) found first-year, FGS were more successful when their faculty were introduced to FGS and were supported by the university to work with FGS. Ideally, faculty would receive adequate training and orientation to the first-year experience and would be required to attend first year conferences and workshops to meet new students (p. 291). Faculty can serve a pivotal role in helping FGS acclimate to higher education by bridging any academic

preparation gaps that exist through deploying multiple modalities, regular outreach to students at flexible times, providing one on one conversations within class time, and recognizing students' effort even when falling short of expectations (Means & Payne, 2017, p. 917). FGS's academic development can benefit from structured and unstructured out-of-classroom communication from their professors, such behavior should be encouraged by the university (Gist-Mackey et al, 2018, p. 56).

## Peer Relationships

Fischer (2007) found that the number of friends a student had on campus was positively related to the likelihood of the student graduating in six years. Students who lack close peer relationships may disengage from university more easily (Bronkema & Bowman, 2019, p. 281). FGS can build relationships with other students more easily if they live on campus or participate in a learning community, they form peer support groups that are socially and academically tethered (Bai & Pan, 2010; Bronkema & Bowman, 2019).

Gray et al. (2018) offers additional benefits of peer support psychologically on FGS. FGS may feel like outsiders in the postsecondary space and feel as though they are playing "the game" and expending copious amounts of emotional energy when interacting with their CGS peer who typically come from higher social classes. Spending time with their support network of peers can offer reprieve and allow FGS to disengage from cross-class interactions and renew their energy so they are prepared to "get back in the game" (p. 1242).

Universities can design initiatives to monitor student's friendships and identify students who are not making social connections using trained faculty and Resident Advisors who can informally observe students' interactions. (Bronkema & Bowman, 2019). Faculty can intervene by encouraging FGS to join student groups, utilize peer learning, or invite students to learning

communities (Bronkema & Bowman, 2019, p. 282). These interventions create organic spaces for FGS to build relationships with their peers.

#### Extracurricular Activities

Participation and membership in student groups can support the transition of FGS into college by socially integrating them into campus life through an area of interest (Pike et al., 2011; Swail et al., 2003). FGS can be introduced to university groups from faculty members or from their peers who are already engaged with the group; students may petition to create new groups and fill gaps left by the current offerings (Kuh et al., 2010, p. 239). Engagement in purposeful activities has a significant impact on FGS persistence even when accounting for differences in their background from CGS students (Kuh et al., 2008, p. 551).

FGS of color can find additional benefits in joining cultural student groups. Overall lack of diversity in student populations makes it more difficult for students of color to find quality relationships within the academic community, joining cultural organizations may prevent feelings of isolation and alienation (Swail et al., 2003, p. 71). Students of color find support structures in cultural organizations that increase their sense of belonging and feelings of confidence (Means & Payne, 2017, p. 909). When institutions provide spaces for cultural organizations, they are providing the means for students to "disrupt societal messages of discrimination and internalized messaging of racism, sexism, and classism" (Means & Payne, 2017, p. 921).

### **Category 5: Navigational Capital**

Navigational capital is best described as resiliency. As individuals overcome hardships, they develop "a set of inner resources, social competencies and cultural strategies that permit [them] to not only survive, recover, or even thrive after stressful events, but also to draw from

the experience to enhance subsequent functioning" (Stanton-Salazar & Spina, 2000, p. 229).

Universities can support FGS in taking advantage of programs supporting navigational capital by creating accessible, free or low-cost opportunities with flexible points of access (Engle et al., 2006, p. 41). FGS can build their navigational capital through participation in mentoring programs, living in on-campus housing, and participation in financial aid programs.

## Mentoring

Providing mentoring opportunities to FGS is one of the most effective best practice policies that can be used to improve postsecondary attrition rates. Mentors can be effective tools to connect FGS to educational experiences as well as serving as a source of support within the student's social network. The best practice standards impactful mentoring programs should encourage measurable goal setting, use matching criteria to select the best mentor for each mentee, and integrate activities that build off the mentee's culture, community, and family (Cavendish et al., 2016, pp.2).

The effects of a mentor on FGS are vast, mentors can serve as role models, advocates, and most importantly a knowledgeable, reliable figure within the student's social network (Liou et al., 2016). Plaskett (2018) argues that trust is the foundation of successful mentorship.

Program administrators can take steps to match FGS with mentors with similar backgrounds who can draw upon their own experiences to encourage self-discovery and self-advocacy without making the FGS feel stigmatized (p. 50).

#### Housing

Swail et al. (2003) identified poor housing options as a driving factor of low student retention. Living on campus can support FGS integration into the postsecondary space and universities should ensure accessible and affordable housing options for students (p. 109).

Universities should offer several housing plans that differ by living arrangement and cost, allowing FGS to choose the housing that meets their diverse needs (p.110). Once living in oncampus housing, universities can continue to support FGS through implementing resident advisors and residential learning communities.

Tobolowsky, at al. (2020) found that FGS are more successful when they have access to in-housing support agents, such as resident advisors (RA). RAs are most effective when there is a low student to RA ratio, giving them time to devote to each student, and when the RA is knowledgeable and has an applicable degree or specific experiences (p.290). Universities can help their on-campus housing specialize support by grouping first-year students together in dorms, giving them the time and opportunity to make connections with other students (Kuh et al., 2010, p. 258).

Residential learning communities, or living-learning communities, are another high impact practice targeting student persistence. In residential learning communities are similar to typical learning communities, except students all live together in common housing and they are engaged in structured activities within their residence hall to facilitate building relationships with faculty and peers (Edium et al., 2020, p. 2). Residential learning communities cultivate and value FGS's experiences and abilities, making their transition to college more successful (Edium et al., 2020). Residential learning communities create opportunities for FGS to engage with university faculty as well as support students more easily in making connections with their peers who are in the same learning community allowing them to make the most of on their social capital (Edium et al., 2020, p. 13).

## Financial Support

Financial barriers can quickly lead to FGS withdrawing from university. While in high school, most FGS are unaware of the various types of financial aid and do not know how to apply for them without substantial support from advisors and college preparatory programs (Engle et al., 2006, p. 6). Without continued support, students enrolled in higher education may miss out on applying for additional financial aid opportunities. Universities should review their aid packages to make sure that students and their families are adequately educated about financial aid and receive straightforward information about aid and loan regulations and availability (Swail et al., 2003, p. 91).

To reduce the financial hardship felt by FGS, universities can provide FGS with additional need-based financial aid and opportunities, such as grants, work-study positions, and scholarship programs. Students participating in scholarship programs can benefit from more than just the aid, they can build networks of support within their cohort of students with similar backgrounds that they can rely on while enrolled in university (Means & Pyne, 2017, p.916). To support FGS through unexpected financial burdens, universities should offer emergency loans and grants to their students encouraging persistence through hardship (Swail et al., 2003, p. 96).

## **Category 6: Resistance Capital**

Resistance Capital is grounded in the ability of individuals to recognize oppressive structures and induce systematic change. Through this opposition, individuals are enabled to challenge inequality and improve systems for generations to come (Yosso, 2005). Through the process of resistance, FGS can disrupt the systemic linguistic and cultural loss often required for them to succeed in the U.S. education system (Paris, 2012, p.97). Universities can aid FGS in

mobilizing their resistance capital by presenting systems to give and receive feedback as well as reinforcing FGS's sense of self-efficacy.

### Feedback

FGS can refine their resistance capital from not only giving meaningful feedback but also from receiving feedback. Several researchers have identified that FGS benefit from receiving feedback early and often (Morales, 2014; Kuh et al., 2010; Kuh et al., 2008). Morales' research found that students increased their effort and the value of their effort when they had clear feedback on where they excelled or need improvement (Morales, 2014, p. 96). Consistent and detailed feedback helped FGS identify next steps and avoid frustration and confusion of not knowing what they should do (Morales, 2014, p. 97). Some universities find success with innovative feedback sessions, where students receive internal and external feedback, where someone from the community can assess the students work and provide feedback making it more well-rounded and objective (Kuh et al., 2010, p. 85). As students learn and adjust after receiving feedback, they build confidence. This confidence equips them to provide meaningful feedback to their professors and university when presented the opportunity.

At most universities, students can provide feedback on their professor at the end of the course. Some programs choose to create on-going spaces for feedback throughout the semester and have one on one meetings to discuss the feedback (Kuh et al., 2010, p. 88). Students should also have opportunities to provide feedback on university-wide issues. As universities implement and test new programs, they should build infrastructure to solicit and receive feedback. The culmination of this feedback should be shared back with the stakeholders, including the students (Swail et al., 2003, p. 126). When students can provide feedback and observe its use, they feel empowered and valued by their university.

## Reinforcing Self-Efficacy

Psychologist Albert Bandura identified four components of self-efficacy: past successes, hearing of others' successes, encouragement, and emotional stimulation (1977). Self-efficacy allows for FGS to draw on their core identity strength to face adversities. By looking at their past and planning for their future, FGS can leverage their assets to influence and shape their future (Gray et al., 2018, p. 1239). Universities and instructors can support students in exercising their self-efficacy by promoting alumni accomplishments and work, humble themselves by sharing their own struggles, provide detailed feedback to students frequently and early, and giving students autonomy and choice in picking assignment topics (Morales, 2014, p. 96).

Additional ways universities can reinforce student's self-efficacy is to encourage help-seeking tendencies. When students face academic challenges, they will be more likely to prevail if they take advantage of university provided resources (Morales, 2014). FGS and other low-income students are less likely to engage with out of classroom resources like writing labs, tutoring, or study groups (Engle & Tinto, 2008). To counteract this, universities and faculty can take steps to normalize resource use. Morales (2014) suggests faculty members could craft assignments and projects to require the students utilizing campus resources, such as required library orientations or scavenger hunts (p. 99). Students will become more familiar with the supports available and when a need arises, they can draw on their past experience.

### **Conceptual Framework**

The conceptual framework used in this research is modeled after the category conceptual framework detailed by Shields and Rangarajan (2013), for use with description-based research.

The descriptive categories used to create the framework come from Yosso's model of Community Cultural Wealth. The literature related to each category can be found in **Table 1.** 

These categories and the related subcategories will be used to create a scoring rubric that will evaluate and compare the first-generation interventions available at public, four-year universities in Texas.

**Table 2.1** *Conceptual Framework* 

<b>Title:</b> Utilizing a Cultural Wealth Frame	work to Examine First-Generation Resources Available
at Public Universities in Texas	
	to describe the assets-based policies, programming,
and supports provided to FGS by public,	four-year universities in Texas targeting college
persistence.	
Category	<b>Supporting Literature</b>
1. Aspirational Capital	
1.1 Advising	Miller and Irons (2014); Molina and
	Abelman (2000); Museus and Ravello
	(2010); Swail et al., (2003)
1.2 Pre-college programming	Engle et al., (2006); Odeleye and Santiago
	(2019); Sanchez et al., (2018)
1.3 Inclusive curriculum	López (2017)
2. Linguistic Capital	
2.1 Pedagogical practices	Gist-Mackey et al., (2018); Markle &
	Stelzriede (2020); McIntosh & White
	(2006); Miller & Irons (2014); Morales
	(2014); Paris (2012); Swail et al., (2003)
2.2 Inclusive communication	Garrison and Gardner (2012); Pratt et al.,
	(2019b); Rincon and Hollis (2020)
3. Familial Capital	
3.1 Civic engagement	Gist-Mackey et al., (2018); Olson-McBride
	et al., (2016); Pratt et al., (2019); Ro et al.,
	(2020)
3.2 Family engagement	Garrison and Gardner (2012); Lawton-
	Sticklor (2018) Rincon and Hollis (2020);
	Roksa & Kinsley (2019); Saenz and Barrera
	(2007)
4. Social Capital	
4.1 Faculty relationship	Gist-Mackey et al., (2018); Means and Pyne
	(2017); Ro et al., (2020); Tobolowsky et al.,
	(2020)
4.2 Peer relationships	Bai & Pan (2010); Bronkema & Bowman
	(2019); Fischer (2017); Gray et al., (2018);

4.3 Extracurricular Activities	Kuh et al. (2008); Kuh et al. (2010); Means and Pyne (2017); Pike et al. (2011); Swail et al. (2003);
5. Navigational Capital	
5.1 Mentoring	Cavendish et al. (2016); Liou et al. (2016); Plaskett et al., (2018)
5.2 Housing	Eidum et al. (2020); Kuh et al. (2010); Swail et al., (2003); Tobolowsky et al., (2020)
5.3 Financial Support	Engle et al., (2006); Means and Pyne (2017); Swail et al., (2003)
6. Resistance Capital	
6.1 Feedback	Kuh et al. (2008); Kuh et al., (2010); Morales (2014); Swail et al., (2003)
6.2 Reinforcing self-efficacy	Bandura (1977); Engle & Tinto (2018); Gray et al., (2018); Morales (2014)

## **Chapter Summary**

This chapter explored the literature on best-practice, assets-based, interventions universities can deploy to increase FGS retention. These interventions become subcategories of the six descriptive categories pulled from the asset types in the Community Cultural Wealth Framework. The framework categories include aspirational capital, linguistic capital, familial capital, social capital, and navigational capital. The Community Cultural Wealth framework and subsequent best practice interventions serve as the conceptual framework for this research and the basis of the scoring rubric. The next chapter provides details about the research procedure and methods of data collection.

## **CHAPTER 3**

### Methodology

This chapter provides an overview of the research methodology deployed. First, a closer look at the research population is provided using recent Texas state data on four-year universities. Next, information about the data sources used is presented. After, the operationalization of the conceptual framework used to conduct research is presented. Finally, strengths and limitations of the research mythology are discussed.

#### **Texas Universities**

The scope of this research will cover public, four-year universities in Texas. Texas is ranked thirty second in bachelor's degree attainment nationally, with 31.3% of adults holding a degree (Texas Higher Education Coordinating Board, p. 6, 2020). Annually, the Texas Higher Education Coordinating Board (THECB) publishes an almanac that includes statewide postsecondary institution data as well as disaggregated data for each public institution. A summary of the data for fiscal year 2019 can be found in **Table 3.1.** According to the 2020 Almanac, there are 37 public, four-year universities that range from fewer than 1,000 undergraduate students to more than 50,000 undergraduate students. Most public Texas universities are members of larger university systems, the only independent public universities are Stephen F. Austin State University and Texas Southern University.

The average cost of attendance is equally disparate, the most affordable university was also the smallest. Sul Ross State University Rio Grande College's average tuition was \$5,686 and 821 undergraduate students enrolled (p. 18). The most expensive is the University of Texas at Dallas; the average tuition is \$13,442. The six-year graduation rate is defined as the percent of degree-seeking students who obtain a bachelor's degree or higher within six academic years (p.

4). At the lowest end of universities sampled, Texas Southern University has a six-year graduation rate of 26%, while the University of Texas at Austin has the highest rate with 89% of students graduating within six years (p. 18). Five of the universities included did publish six-year graduation rates because they are either too new or share accountability with another university in their system, and they are represented as N/A in **Table 3.1.** 

**Table 3.1** *Tuition, Enrollment, and Six-Year Graduation Rates of Public Texas Universities, Organized by State University System* 

4-year public institution	Average tuition & fees	Fall 2020 Enrollment	Six-year Grad Rate	
Texas A&M University System				
Prairie View A&M University	10,785	8,109	41%	
Tarleton State University	\$8,956	11,209	58%	
Texas A&M International University	\$8,844	7,220	55%	
Texas A&M University	10,562	51,511	86%	
Texas A&M University—San Antonio	\$8,245	5,934	N/A <sup>3</sup>	
Texas A&M University—Texarkana	\$8,264	2,053	44%	
Texas A&M University—Central Texas	\$6,702	2,440	N/A <sup>3</sup>	
Texas A&M University—Commerce	\$8,958	8,225	53%	
Texas A&M University—Corpus Christi	\$10,020	9,056	51%	
Texas A&M University—Galveston	11,885	1,644	72%	
Texas A&M University—Kingsville	\$9,136	6,174	47%	
West Texas A&M University	\$8,688	9,970	51%	
Independent	University Systen	1	_	
Stephen F. Austin State University	10,946	11,426	63%	
Texas Southern University	\$9,174	7,092	26%	
Texas State U	Jniversity System	1	_	
Texas State University	11,240	33,917	63%	
Lamar University	10,340	8,610	40%	
Sam Houston State University	10,482	18,783	61%	
Sul Ross State University	\$8,554	1,644	30%	
Sul Ross State University Rio Grande College	\$5,686	821	N/A <sup>3</sup>	
Texas Tech University System				
Angelo State University	\$8,720	8,917	51%	

Texas Tech University	11,320	32,057	72%	
Midwestern State University <sup>1</sup>	\$9,601	5,500	54%	
Texas Woman's	Texas Woman's University System			
Texas Woman's University <sup>2</sup>	\$9,480	10,023	49%	
University of	f Houston Syster	n		
University of Houston	11,276	37,689	68%	
University of Houston—Clear Lake	\$7,961	6,439	$N/A^3$	
University of Houston—Downtown	\$8,386	12,867	41%	
University of Houston—Victoria	\$8,328	4,499	31%	
University of N	North Texas Syst	em		
University of North Texas	11,712	32,126	61%	
University of North Texas at Dallas	\$9,140	4,040	39%	
University of Texas System				
The University of Texas at Arlington	11,040	28,627	63%	
The University of Texas at Austin	\$10,314	40,163	89%	
The University of Texas at Dallas	13,442	20,771	75%	
The University of Texas at El Paso	\$8,340	21,427	41%	
The University of Texas at San Antonio	\$9,724	27,727	64%	
The University of Texas at Tyler	\$8,742	6,987	60%	
The University of Texas Permian Basin	\$8,464	5,283	46%	
The University of Texas Rio Grande Valley	\$8,132	24,965	N/A <sup>3</sup>	
Note  1 Effective September 1, 2021 per HB 1522 (Gaynor, 2021)  2 Effective May 26, 2021 per SB 1126 (Flores, 2021)  3 Six-year graduation rates were not published in the 2020 Almanac			Upper Third Middle Third Lower Third	

## **Website and Social Media Content Analysis**

The research method deployed in this paper is a content analysis. According to Babbie, content analysis can include the study of "human communication such as books, websites, paintings, and laws" (2007, p. 320). The materials selected for review were largely determined by the preferences of Generation Z (Gen Z) who are the dominant age group enrolling in undergraduate programs today. In 2013 the first cohort of Gen Z enrolled in institutes of higher

education (Seemiller & Grace, 2017, p. 21). Unlike previous generations, Gen Z has never experienced life without the internet (p. 22). The ability to access information quickly and conveniently is important to Gen Z, so they would likely turn to the internet to answer their questions about college and the resources provided (Szymkowiak et al., 2021, p. 6). Gen Z is more pragmatic than millennials. When it comes to making informed decisions about their postsecondary plans, they focus on the programs and supports, "they shop for a good value, appreciate price transparency, and want to estimate their return on investment as specifically as possible" (Selingo, 2018, p. 4). Additionally, while Gen Z is less likely to use Facebook, they turn to other social media platforms like YouTube, Instagram, and TikTok to get their information, including information about college (Selingo, 2018, p. 23). For the purposes of this research, only public content published to official university websites and social media platforms targeting FGS were examined.

## **Operationalization of Conceptual Framework**

Following Babbie's method of content analysis, the content published for each university will be evaluated against a coding rubric developed from the conceptual framework (2007, p. 325). The coding criteria developed for this research pulled directly from the best practices identified in Chapter 2. Each criterion was assessed then given a rating of 0, 1, or 2. A university receiving a rating of 2 represents close adherence to best practices for each criterion. Universities who are implementing programs that aspire to or approach the best practices will receive a 1 rating. Universities who do not address certain criteria or do not publicly acknowledge programing in certain areas will receive a 0 rating. The specific coding details for each criterion are outlined in **Table 3.2.** 

One rater reviewed publicly available information on each university's official website as well as university social media counts targeting FGS, where applicable. The rater prioritized finding information from the university home pages or dedicated pages for FGS support. Website search features were used as an attempt to find information on resources inaccessible through the first method of review. When the university promoted a social media account as a source of additional information for FGS, the content of the social media account was also reviewed. The scores cumulative scores and scores for each category of the Cultural Wealth framework were calculated.

**Table 3.2** *Operationalization Table of Conceptual Framework* 

**Title:** Utilizing a Cultural Wealth Framework to Examine First-Generation Resources Available at Public Universities in Texas

**Purpose:** The purpose of this research is to describe the assets-based policies, programming, and supports provided to FGS by public, four-year universities in Texas targeting college persistence.

Category	Criteria to be assessed	Coding	Code
1. Aspirational	Capital		
1.1 Advising	1.1.a Required frequency of	0= Not Required or not indicated	
	academic advising.	1= Required annually or less	
		2= Required multiple times a year	
	1.1.b Advisor concentration	0= No matching effort or not	
	match	indicated	
		1= Match based on school	
		2= Match based on degree or	
		program	
	1.1.c Advisor demographics	0= No matching effort or not	
	match	indicated	
		1= Demographic matches	
		available for some students	
		2= Demographic matches	
		available for all students	
	1.1.d Use appreciative or	0= Not used or not indicated	
	intrusive advising	1= Used by some advisors	
		2= Used by all advisors	
1.2 Pre-college	1.2.a Summer Bridge	0= Not provided or not indicated	
programming	Programs	1= Provided at a cost to student	
<u> </u>		2= Provided at no cost to student	

	1.2.b Prospective student outreach	0= Not provided or not indicated 1= Services end after High School graduation 2= Services continue while enrolled in university
1.3 Inclusive curriculum	1.3.a Use of assets-based pedagogy	0= Not a specified initiative or not indicated 1= Strategy used by some in the university 2= Explicit university-wide strategy
	1.3.b Diversity of cited works in curriculum	0= Not a specified initiative or not indicated 1= Strategy used by some in the university 2= Explicit university-wide strategy
2. Linguistic Ca	pital	
2.1 Pedagogical practices	2.1.a Learning communities	0= Not provided or not indicated 1= Provided, no specified LC for FGS 2= Provided, offer LC for FGS
	2.1.b Culturally Sustaining Pedagogy	0= Not a specified initiative or not indicated 1= Strategy used by some in the university 2= Explicit university-wide strategy
2.2 Inclusive communication	2.2.a Multilingual communication	0= Resources offered only in English 1= Resources offered in two languages 2= Resources offered in three or more languages
	2.2.b University commitment/mission statement for inclusion of FG students	0= Not indicated 1= inexplicit commitment 2= explicit commitment
3. Familial Capi	tal	
3.1 Civic engagement	3.1.a Volunteer opportunity	0= Unavailable or not indicated 1= Available 2= Available, within diverse communities
	3.1.b Internships	0= Unavailable or not indicated 1= Available, not required 2= Available, required

	2.1 a Daid apparturation	O- Unavailable on not indicated
	3.1.c Paid opportunities	0= Unavailable or not indicated
		1= Available
		2= Available with spots reserved
		for low-income and FGS
3.2 Family	3.2.a Family participation	0= Family members involvement
Engagement	during orientation	is not indicated
		1= Family members are invited to
		attend student sessions
		2= Family members are invited to
		specialized family sessions
	3.2.b Communication to	0= No formal systems or not
	families	indicated
	Tallinies	1= Newsletters or updates are sent
		=
		to families 1-2 times a year
		2= Newsletters or updates are sent
		more than one time a semester
4. Social Capit	al	
4.1 Faculty	4.1.a Flexible scheduling	0= Not a specified initiative or not
relationship		indicated
		1= Strategy used by some in the
		university
		2= Explicit university-wide
		strategy
	4.1.b Informal collaboration	0= Not a specified initiative or not
	and out of class time	indicated
	and out of class time	
		1= Strategy used by some in the
		university
		2= Explicit university-wide
		strategy
	4.1.c Introductions between	0= Not a specified initiative or not
	FGS and faculty	indicated
		1= Strategy used by some in the
		university
		2= Explicit university-wide
		strategy
4.2 Peer	4.2.a University sponsored	0= Not provided or not indicated
relationships	events targeting FGS	1= Offered 1-2 times a year
Telationships	Cvents targeting 105	2= Offered more than one time a
	421 D 11 1 1	semester
	4.2.b Peer led academic	0= Unavailable or not indicated
	support	1= Faculty encourages peer
		academic support
		2= Formal university peer
		academic supports
	4.2.c Relationship Monitoring	0= Unavailable or not indicated
		1= Informally used
		·

		2= Formally used with reporting structures
4.3 Extracurricular Activities	4.3.a Presence of FGS groups	0= Unavailable or not indicated 1= One group available 2= Two or more groups available
	4.3.b Ability to create new student groups	0= Unavailable or not indicated 1= Requires faculty advisor 2= Easy to create without faculty advisor
5. Navigational	Capital	
5.1 Mentoring	5.1.a Peer mentoring	0= Unavailable or not indicated 1= Available, not required 2= Available, required
	5.1.b Mentor match	0= No matching effort or not indicated 1= Match based on one demographic characteristic 2= Match based on more than one demographic characteristic
	5.1.c Measurable goal setting	0= unavailable or not indicated 1= SMART goals encouraged 2= SMART goals required
5.2 Housing	5.2.a Diversity of on-campus housing options	0= on-campus housing unavailable 1= One or two housing options 2= Three or more housing options
	5.2.b Background of residential advisors (RA)	0= no RA positions or not indicated 1= RA positions require no specific education or work experience 2= RA positions require specific education or work experience
	5.2.c Residential Learning Community	0= Not provided or not indicated 1= Provided, no emphasis on FGS participation 2= Provided, emphasis on FGS participation
5.3 Financial Support	5.3.a Financial aid workshops and training	0= Unavailable or not indicated 1= Only asynchronous information available 2= Live workshops or meetings available
	5.3.b FG scholarships and scholarship programs	0= Unavailable or not indicated 1= Available for some concentrations 2= Available for all concentrations

	5.3.c Needs based scholarships and emergency loans	0= Unavailable or not indicated 1= Some form of needs-based funding available
		2= Emergency loans and scholarships available
6. Resistance Ca	apital	
6.1 Feedback	6.1.a Student receives feedback from faculty	0= Unavailable or not indicated 1= Limited opportunities for feedback 2= On-going opportunities for feedback
	6.1.b Student provides feedback on faculty	0= Unavailable or not indicated 1= Limited opportunities for feedback 2= On-going opportunities for feedback
	6.1.c Student provides feedback on university	0= Unavailable or not indicated 1= Limited opportunities for feedback 2= On-going opportunities for feedback
6.2 Reinforcing self-efficacy	6.2.a Faculty promotes past student work	0= Not a specified initiative or not indicated 1= Strategy used by some in the university 2= Explicit university-wide strategy
	6.2.b Faculty role in encouraging resource use	0= Unavailable 1= Faculty encouraged to integrate resources into their syllabi 2= Faculty required to integrate university resources into their syllabi

# **Considerations for Content Analysis**

One strength of this research method is also a weakness. The content analysis may be incomplete because it is restricted to publicly available information. The university may offer programs that meet the criteria in **Table 3.2** and only share details with enrolled students, not the public. However, this method simulates the experience a FGS may have when trying to identify

resources provided by specific universities. Since it was all publicly available, it was within the reach of a FGS browsing or searching university websites and social media.

Another weakness of this method is the inherit subjectivity to coding of qualitative materials. With only one rater, who is providing subjective analysis, the study is less reliable. The code was developed to capture the nuance of higher education program that would be missed if the criteria were evaluated using a binary, "yes" or "no", code. The creation of a middle rating "1" allowed the rater to acknowledge universities attempting programming without compromising the best practice standards associated with a rating of "2".

# **Chapter Summary**

The proceeding chapter described the research methodology used to examine the best practice interventions being deployed by public, four-year Texas universities to promote FGS attrition. The next chapter will feature the results of the content analysis in the context of the conceptual framework.

#### **CHAPTER 4**

#### **Results**

This chapter provides the results of the content analysis and coding exercise conducted on 37 university websites and social media accounts. This chapter presents the findings associated with each form of capital in the CCW framework, including a brief description of the subcategories within each form of capital, and concludes with a presentation of cumulative scores by university. The scoring rubric used to evaluate each university is provided in Table 3.2.

## **Category 1: Aspirational Capital**

The elements of Aspirational Capital included advising, pre-college programming, and use of inclusive curricula. Aspirational capital includes some of the earliest touch points between an entering FGS and the university (advising, summer bridge programs, high school outreach programs) and can shape the FGS's experience in postsecondary spaces. Overall, universities scored lowest in aspirational capital, the average score was only 40% and the best performing universities, scored 69% of the possible points. A summary of the Aspirational Capital results can be found in **Table 4.1**.

**Table 4.1**Aspirational Capital Component Score Summary

Category	Highest Possible	Mean	Median	Min	Max
Advising	8	3.5	3	1	6
Pre-College Programming	4	1.8	2	0	4
Inclusive Curriculum	4	1.5	2	0	4
Aspirational Total	16	6.4	6	0	11

*Note:* Resources and activities provided at Sul Ross State University Rio Grande College were indistinguishable from Sul Ross State University and all responses were defaulted to 0 and it was omitted from the descriptive statistic calculations.

# Advising

The results in **Table 4.1** indicate there is room for improvement in advising practices for every university examined. The three lowest scoring universities had received one out of eight available points, similarly three universities received the highest score of six out of eight points. Most universities required advising at some point during enrollment, ten universities met best practiced standards and required students to meet with advisors multiple times a year. When it came to the match between students and their advisors, 21 universities matched students based on their school of enrollment and another 11 assigned students to advisors based on their concentration. Demographic match between students and their advisors was the least adhered to best practice criterion. Only two universities met the best practices standards, both universities were Historically Black College or Universities (HBCU), Prairie View A&M and Texas Southern University, and thus had a more homogenous student body population. Approximately two thirds of the universities utilized appreciative or intrusive advising, though only nine universities mandated the use of such approaches.

# Pre-college Programming

Twenty of the universities implemented summer bridge programs for students to participate in prior to fall enrollment. While some universities provide the program at no cost to low-income students, limited capacity at all universities made this resource challenging and competitive to access. The most common case management or outreach service to high school students came from the Talent Search Program, a federally funded TRiO initiative, twelve of the sixteen universities who provided on-going case management did so through Talent Search.

#### Inclusive Curriculum

Information on the inclusivity of curriculum often came from the universities' diversity, equity, and inclusion offices. Approximately two thirds of the universities committed to use of an assets-based pedagogy, some of the universities were further along in these initiatives and established mechanisms to build an asset-based pedagogy (i.e., committing to incorporating literature and works from diverse sources) while others included the changes in their strategic plan but were too early in the process to have detailed examples.

# **Category 2: Linguistic Capital**

Activities that support linguistic capital are culturally affirming. The literature review identified two key categories of support universities can provide to develop students' linguistic capital, pedagogical practices and use of inclusive communication. The findings related to linguistic capital are included in **Table 4.2**.

 Table 4.2

 Linguistic Capital Component Score Summary

Category	Highest Possible	Mean	Median	Min	Max
Pedagogical Practices	4	2.1	2	0	4
Inclusive Communication	4	1.8	2	0	4
Linguistic Total	8	4	4	1	7

*Note:* Resources and activities provided at Sul Ross State University Rio Grande College were indistinguishable from Sul Ross State University and all responses were defaulted to 0 and it was omitted from the descriptive statistic calculations.

# Pedagogical practices

Like the items assessed under the inclusive curriculum category, the universities' stance on culturally sustaining pedagogy was included in the universities' diversity, equity, and inclusion offices and the depth of the universities' initiatives depended on the maturity of their commitment to diversity, equity, and inclusion. 28 universities made some sort of commitment to developing a culturally sustaining pedagogy, thirteen of which had formal systems in place. 27 universities offered learning communities as a resource to students. All 27 universities provided learning communities focused on academic and extracurricular interests, 11 universities organized FGS learning communities whose only participants were other FGS.

#### Inclusive Communication

Inclusivity of communication measured the universities' efforts to present information in the first (or primary) language of students and their families and their efforts to specify their commitment to FGS. Only Texas Tech University's website had the ability to be translated into languages beyond English and Spanish. 18 university sites provided some or all resources in Spanish and the remaining universities exclusively used English. 27 universities made a commitment to FGS success, some universities developed entire departments devoted to helping FGS succeed in school.

## **Category 3: Familial Capital**

The categories of initiatives aimed at growing familial capital include civic engagement and family engagement. The CCW framework includes strong community relationships as a form of familial capital and universities can help cultivate these relationships though off-campus and out of school programs. Universities must also bridge a connection between the FGS lives on campus with their families. Overall, universities scored the highest on familial capital. The

average score was 61% and the best performing campuses had a score of 90%. The summary of university initiatives is included in **Table 4.3**.

**Table 4.3**Familial Capital Component Score Summary

Category	Highest Possible	Mean	Median	Min	Max
Civic Engagement	6	3.6	4	1	5
Family Engagement	4	2.5	2	0	4
Familial Total	10	6.1	6	2	9

*Note:* Resources and activities provided at Sul Ross State University Rio Grande College were indistinguishable from Sul Ross State University and all responses were defaulted to 0 and it was omitted from the descriptive statistic calculations.

## Civic Engagement

The civic engagement best practices identified from the literature included volunteer opportunities, internships, and paid employment opportunities. 29 of the universities provided volunteer opportunities for enrolled students, 16 of the universities prioritized volunteer opportunities in diverse communities that may be more similar to the home communities of FGS. Every university offered optional internships, none meeting best practice standards of requiring internships for FGS. 24 universities provided paid opportunities for involvement (outside of federal work study). 14 universities had roles and positions specially reserved for FGS, often these positions were peer mentoring, tutoring, or residential life positions targeting work with other FGS.

## Family Engagement

Five universities did not explicitly invite guardians and families to a new student orientation. At nine universities, the families were invited to attend the student session but did not receive separate information for families. 22 universities organized specific sessions for guardians and families that provide tailored information. Another important aspect of family

engagement is the provision of on-going updates from the university. 23 universities provide some sort of family newsletter, 13 provide monthly or quarterly newsletters to families.

# **Category 4: Social Capital**

University initiatives that target amplifying FGS social capital fall under three categories, relationships with faculty, relationships with peers, and involvement in extracurricular activities. Social capital can play a large role in FGS's attrition, when students have established deep networks of support, they feel more engaged because of an increased sense of belonging (Kuh et al., 2010). **Table 4.4** contains the best practice scoring summary for social capital.

**Table 4.4**Social Capital Component Score Summary

Category	Highest Possible	Mean	Median	Min	Max
Faculty Relationships	6	2.4	3	0	5
Peer Relationships	6	3.1	3	0	6
Extracurricular Activities	4	1.6	1	0	4
Social Total	16	7.1	8	1	13

*Note:* Resources and activities provided at Sul Ross State University Rio Grande College were indistinguishable from Sul Ross State University and all responses were defaulted to 0 and it was omitted from the descriptive statistic calculations.

## Faculty Relationships

The literature identified several strategies faculties and universities can take to build relationships with FGS, most information for this section came from faculty policy handbooks. One strategy adopting a flexible scheduling policy that could be accommodating to FGS with competing priorities (e.g., home, work, school). 24 universities included policies that encouraged faculties to offer flexible meeting times, 9 universities required faculty to prioritize student's convenience. Another strategy related to faculty offering informal collaboration outside of class,

only one university had a policy requiring out of class time, 22 had policies to encourage such arrangements. The third strategy was to provide FGS early introductions to faculty, 17 universities adopted this strategy, 14 followed the best practice standards and created formal opportunities.

## Peer Relationships

The literature suggested the universities' role in supporting peer relationships is around building spaces and the right conditions for students to build relationships. One strategy is for the university to host events specifically for FGS that allow for FGS to meet outside of the classroom. 22 universities provide events for FGS, 13 offer multiple events throughout the year giving more opportunity for students to attend and meet new people. For students who live on campus, the resident hall staff can support FGS build relationships by formally monitoring relationship progress and providing interventions when necessary. Only four universities utilize such a system of monitoring and adjusting (Texas A&M University, Texas A&M International University, University of Houston, and University of Houston – Clear Lake).

## Extracurricular Activities

Extracurricular spaces can provide additional opportunities for FGS to build relationships and grow their social capital. University sponsored groups for FGS provide additional opportunities for students to build relationships with people from similar backgrounds. 14 universities have FGS organizations, six universities have multiple FGS organizations that allow FGS more options. FGS can created new student organizations on 33 campuses, most require a full-time faculty member to sign on as an advisor, a potential barrier to creating a new student organization. Three universities, University of Houston – Clear Lake, Texas A&M – San

Antonio, and The University of Texas at Austin, allow students to form organizations without a faculty advisor.

# **Category 5: Navigational Capital**

A university's role in enhancing student's navigational capital is to provide students with resources and opportunities that build resiliency. Mentorship and residential programs are effective ways for the university to build accessible supports for FGS. Additionally, opportunities for knowledge sharing and provision of financial resources also strengthen FGS's ability to withstand hardships. The summary of navigational capital scores is included in **Table 4.5**.

**Table 4.5** *Navigational Capital Component Score Summary* 

Category	Highest Possible	Mean	Median	Min	Max
Mentoring	6	2.6	3	0	5
Housing	6	3.4	3.5	0	5
Financial Support	6	4.2	5	1	6
Navigational Total	18	10.2	10	4	15

*Note:* Resources and activities provided at Sul Ross State University Rio Grande College were indistinguishable from Sul Ross State University and all responses were defaulted to 0 and it was omitted from the descriptive statistic calculations.

## Mentoring

Peer mentoring opportunities are available at 33 universities. Mentoring is a required activity for FGS at two universities, Tarleton State University and Texas A&M University. At 25 of the 33 universities that provide mentoring, the university matches mentors to mentees on at least one demographic characteristic, 11 universities match on multiple demographic characteristics. The literature review identified the use of measurable goals as an important aspect of mentorship, 20 universities encourage the use of measurable goals.

## Housing

Two universities, Texas A&M University – Central Texas and University of Houston – Downtown, do not provide on-campus housing options and thus have null scores for any item related to housing. 23 universities meet the recommended best practices and provide several diverse housing options to meet students' specific needs, while 11 universities provide limited housing options that result in homogony of experiences. 31 of the universities employ RAs (or similar) to live alongside students and provide support. Only one university, Texas A&M – Commerce, requires RAs candidates to have specific work experience. Living learning communities are another resource for residential support. 22 universities offer living learning communities, and, like the traditional learning communities, most living learning communities focus on shared academic and social interests. Ten of the universities offer living learning communities specifically for FGS.

# Financial Support

Transparency and direct aid are two important factors on a FGS's ability to be resilient. While all 36 universities offer financial aid information and training, only ten universities provide asynchronous and synchronous opportunities making it more accessible for students and families to get the information they need to make informed decisions. 22 universities offer scholarships or scholarship programs for FGS, 19 have opportunities available for all FGS regardless of their major. In addition to scholarships, 28 universities offer short-term emergency loans to students to pay tuition and related fees that may otherwise prohibit their persistence in higher education.

# **Category 6: Resistance Capital**

The development and amplification of resistance capital is likely the most important for long-term impact and improvement of university systems. When the university provides students to give ample feedback and works to reinforce students' sense of self-efficacy, they are laying the foundation for ongoing evaluation and improvement, leading to more supportive universities and higher graduation rates. The summary of findings for resistance capital are in **Table 4.6**.

**Table 4.6** *Resistance Capital Component Score Summary* 

Category	Highest Possible	Mean	Median	Min	Max
Feedback	6	3.4	4	0	6
Reinforcing Self-Efficacy	4	1.7	2	0	3
Resistance Total	10	5.2	5	1	7

*Note:* Resources and activities provided at Sul Ross State University Rio Grande College were indistinguishable from Sul Ross State University and all responses were defaulted to 0 and it was omitted from the descriptive statistic calculations.

#### Feedback

Frequent formal and informal opportunities for feedback allow the students, faculty, and university to be more responsive to environmental changes. 32 universities provided details for how and when students can provide feedback on faculty, 11 of these universities included informal opportunities that exist outside of end of term surveys. Similarly, five universities have policies that require faculty to provide frequent informal feedback that is outside of graded assignments and exams. 33 universities provided details on opportunities for students to provide feedback on the university, nine of these universities utilized focus groups and live input sessions in addition to the asynchronous opportunities used by most universities.

# Reinforcing Self-Efficacy

Two ways universities can encourage or reinforce FGS sense of self-efficacy is through the promotion of similar students' successes and to encourage help seeking tendencies. 20 universities describe opportunities to celebrate and promote alumni work through campus wide initiatives and special events. Faculty at six of the universities take this initiative a step further and integrate alumni work in their syllabi. 28 universities have policies in place that encourage staff to include information on university resources (i.e., tutoring, library assistance, supplemental instruction) in their syllabi, eight universities require the inclusion of resources in the syllabi to make them more accessible to students.

# **Overall Scoring**

4.1. The heatmap illustrates that universities who score highly in one form of capital are likely to score high in others and have higher cumulative scores (e.g., Texas A&M University, The University of Texas at San Antonio, Texas State University, and The University of Texas at Austin). There are a few examples of universities who have high scores in specific capital areas but fall short in the other areas (e.g. Angelo State University has the highest score in linguistic capital but below average scores in other areas and Texas A&M – San Antonio scores high in familial capital but average among the other areas).

**Table 4.7**Comparison Heatmap of University Scores in Each Form of Capital

	Asp.	Lin.	Fam.	Soc.	Nav.	Res.	Overall
Texas A&M University	9	7	8	13	15	7	59
The University of Texas at San Antonio	9	7	9	12	15	6	58
Texas State University	11	6	6	12	13	7	55
The University of Texas at Austin	7	7	9	12	13	7	55
Texas Woman's University	11	5	9	8	14	6	53
University of North Texas	11	6	9	9	11	6	52
The University of Texas at Arlington	10	4	9	7	10	7	47
Texas A&M University— Corpus Christi	6	4	8	11	10	6	45
West Texas A&M University	11	2	4	9	13	6	45
University of Houston	4	4	7	10	14	5	44
Angelo State University	6	7	6	8	11	5	43
Texas A&M University—San Antonio	8	5	9	8	9	4	43
Texas A&M University— Galveston	6	5	5	8	12	6	42
The University of Texas at El Paso	8	4	6	9	9	6	42
The University of Texas at Dallas	3	6	8	7	13	4	41
Texas A&M International University	7	3	7	8	8	7	40
Midwestern State University	4	4	6	9	11	5	39
Prairie View A&M University	11	4	5	5	8	6	39
Sam Houston State University	6	6	5	5	11	6	39

Texas Tech University	4	6	9	3	12	5	39
Tarleton State University	6	3	5	4	12	7	37
University of Houston—Clear Lake	5	4	5	9	10	4	37
Texas Southern University	11	2	2	5	9	7	36
University of North Texas at Dallas	7	4	6	9	7	3	36
Stephen F. Austin State University	4	3	6	8	8	5	34
The University of Texas Rio Grande Valley	8	3	5	3	9	4	32
The University of Texas at Tyler	2	2	8	8	8	4	32
Texas A&M University— Commerce	5	1	5	5	10	5	31
University of Houston— Downtown	6	6	7	4	4	4	31
Texas A&M University— Kingsville	7	1	3	5	10	4	30
University of Houston— Victoria	6	2	3	6	7	5	29
Lamar University	5	6	6	3	7	1	28
Texas A&M University— Texarkana	5	1	4	3	8	6	27
Sul Ross State University	4	1	3	5	9	3	25
The University of Texas Permian	0	2	3	4	10	5	24
Texas A&M University— Central Texas	5	1	3	1	6	2	18
Sul Ross State University Rio Grande College <sup>a</sup>	0	0	0	0	0	0	0
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*Note.* <sup>a</sup> Resources and activities provided at Sul Ross State University Rio Grande College were indistinguishable from Sul Ross State University and all responses were defaulted to 0.

## Conclusion

The findings suggest that most universities are attempting to implement effective strategies to retain FGS. The number of universities who are implementing these strategies in line with the best practices described in the literature are limited. There are some stand out universities that provide many programs in line with the literature's recommendations. Additional information like cost of tuition and institution size are additional factors a student considers when selecting their university. A closer look at the intersection of the content analysis findings and other considerations is discussed in the next chapter.

#### **CHAPTER 5**

#### Conclusion

The purpose of the final chapter is to summarize key findings, present limitations of the findings, and suggest opportunities for future research.

## **Summary of Findings**

FGS make up over half of all students enrolled in undergraduate programs, and yet their postsecondary completion rates fall short of their CGS peers' (RTI International, 2019a). Traditional supports that focus on FGS deficits undervalue the immense amounts of capital FGS bring with them to the higher education space. This research sought to identify the innovative assets-based interventions being deployed by public, four-year universities in Texas.

As illustrated in **Table 4.7**, when universities performed well in one category of capital, they typically performed well in other categories resulting in high overall scores. There were some exceptional universities who exceeded in a single category. An example is Texas Southern University who received top scores in aspirational and resistance capital but was among the lowest scores in linguistic capital. An explanation for this discrepancy is Texas Southern University is a HBCU and has established resources to support their specific student body and their student body may place less emphasis on linguistic capital than the students of a Hispanic Serving institution.

Overall, universities succeeded in providing supports that amplify FGS' familial capital. Most universities deployed strategies to engage families at orientation and worked to keep them engaged throughout the school year. Universities were less successful deploying interventions to build FGS aspirational capital. Very few universities leveraged their advising resources to meet the best practice standards outlines in the research. The universities rarely required multiple

advising sessions a year and were even less likely to match students with advisors from similar life experiences.

When comparing the findings from the content analysis to data from the THECB there are several trends that emerge. The highest scoring university is Texas A&M University with 59 points, next is The University of Texas at San Antonio with 58 points, Texas State University and The University of Texas at Austin had 55 points and Texas Woman's University with 53 points. The top four universities were in the top third for enrollment and six-year graduation rates. Despite providing high quality supports to FGS, three of the five top universities maintained moderately affordable tuition compared other universities. Additionally, four of the five universities are flagship university in their university system, the University of Texas at San Antonio is the only exception and it score higher than the flagship University of Texas at Austin. Based on the assets-based supports, low tuition costs, and relatively high graduation rates, The University of Texas at San Antonio is the best option for FGS. **Table 5.1** provides a full summary of the data for the top five universities.

**Table 5.1**Comparison Between Tuition Cost, Enrollment Size, Graduation Rates Amongst Top Five Universities

	Average tuition & fees	Fall 2020 enrollment	Six-year grad rate	Overall
Texas A&M University	10,562	51,511	86%	59
The University of Texas at San Antonio	\$9,724	27,727	64%	58
Texas State University	11,240	33,917	63%	55
The University of Texas at Austin	\$10,314	40,163	89%	55
Texas Woman's University	\$9,480	10,023	49%	53

The five lowest performing universities and the associated THECB data presents similar themes. The five lowest scoring universities are captured in **Table 5.2.** Unsurprisingly, the six year graduation rates at these universities were among the lowest in the state and with the exception of Lamar University, the average tuition is in the lowest third. Lamar is one of the more expensive public universities in the state, despite its low graduation rates. The lowest performing university, Texas A&M University – Central Texas is one of only two universities that do not provide on-campus housing options. The five lowest scoring universities are a part of Texas State University System, Texas A&M University system, or The University of Texas system despite the flagship university in each system ranking in the top five.

**Table 5.2**Comparison Between Tuition Cost, Enrollment Size, Graduation Rates Amongst Bottom Five Universities

	Average tuition & fees	Fall 2020 enrollment	Six-year grad rate	Overall
Lamar University	10,340	8,610	40%	28
Texas A&M University— Texarkana	\$8,264	2,053	44%	27
Sul Ross State University	\$8,554	1,644	30%	25
The University of Texas Permian Basin	\$8,464	5,283	46%	24
Texas A&M University— Central Texas	\$6,702	2,440	$N/A^1$	18

*Note.* Color coding is by percentile based on each university's data compared to the range to the other public universities in Texas

<sup>1</sup> Six-year graduation rates not available

(Texas Higher Education Coordinating Board, p. 6, 2020).

Upper Third
Middle Third
Lower Third

#### Limitations

There are a few important limitations of this research to consider. First, the content analyzed was limited to publicly available information on university websites and social media accounts. There is a possibility a university offers a best practice intervention but failed to publicize it on their website, thus it was omitted from the scoring. Second, the scoring activity presents additional limitations. The coding rubric was developed by one person based on a comprehensive literature review, while efforts to limit personal bias were made, the rubric could be improved with additional input. Additionally, one individual reviewed the content, an averaged score with additional reviewers would produce more accurate findings. Third, the content analysis took place in June of 2021, over a year into the coronavirus pandemic.

Universities rapidly shifted to operating virtually in the middle of a school year and have sense faced low enrollment rates and high student financial needs (Yuen, V., & Center for American Progress, 2020). The various programs, interventions, and offerings reviewed at the time of the content analysis may not be typical for the universities. The same content analysis conducted a year from now could produce very different outcomes.

# **Opportunities for Future Research**

Exploring the differences in programs offered at two-year universities and four-year universities is a logical next step for this research. FGS make up 64% of all students enrolled in two-year colleges (RTI International, 2019a). There may be model programs at two-year universities that could be extended to four-year universities. Another opportunity for future research is around saturation of programs for FGS. This study focused on identifying whether universities offered specific best practice interventions, i.e., a university that provided peer tutoring to 50 students was scored the same as a university that provided peer tutoring to 5,000

students. A future study could examine the availability and accessibility to programs relative to the size of the FG student body.

#### Conclusion

Public universities in Texas are implementing creative and innovative programs to meet the needs of enrolled FGS. Universities tend to lead with deficits-based interventions that aim to imbue skills and ideologies valued by the dominant groups in society on FGS. Proponents of assets-based interventions believe the capital FGS inherently possess can be amplified and support their persistence in school. Universities and education policy makers should prioritize programs that build on students' cultural wealth and value their aspirational, linguistic, familial, social, navigational, and resistance capital. The erasure of FGS lived experiences in the postsecondary setting has resulted in disproportionate attrition rates between FGS and their CG peers.

# **Appendix A: University Websites and Social Media Handles**

University	Website	Social Media
Angelo State University	https://www.angelo.edu/	
Lamar University	https://www.lamar.edu/	
Midwestern State University	https://msutexas.edu/	
Prairie View A&M University	https://www.pvamu.edu/	
Sam Houston State University	https://www.shsu.edu/	
Stephen F. Austin State University	https://www.sfasu.edu/	
Sul Ross State University	https://www.sulross.edu/	
Sul Ross State University Rio Grande	https://www.sulross.edu/catalog/rio-	
College	grande-college/	
Tarleton State University	https://www.tarleton.edu/	
Texas A&M International University	https://www.tamiu.edu/	
Texas A&M University	https://www.tamu.edu/	@FirstGenAggies
Texas A&M University—Central Texas	https://www.tamuct.edu/	
Texas A&M University—Commerce	https://new.tamuc.edu/	
Texas A&M University—Corpus Christi	https://tamucc.edu/	
Texas A&M University—Galveston	https://www.tamug.edu/	
Texas A&M University—Kingsville	https://www.tamuk.edu/	
Texas A&M University— San Antonio	https://www.tamusa.edu/	@tamusa_firstgen
Texas A&M University— Texarkana	https://tamut.edu/	
Texas Southern University	http://www.tsu.edu/	
Texas State University	https://www.txstate.edu/	@TXSTFirstGen
Texas Tech University	https://www.ttu.edu/	
Texas Woman's University	https://twu.edu/	
The University of Texas at Arlington	https://www.uta.edu/	
The University of Texas at Austin	https://www.utexas.edu/	@firstgenequity
The University of Texas at Dallas	https://www.utdallas.edu/	
The University of Texas at El Paso	https://www.utep.edu/	
The University of Texas Permian Basin	https://www.utpb.edu/	
The University of Texas Rio Grande Valley	https://www.utrgv.edu/en-us/	
The University of Texas at San Antonio	https://www.utsa.edu/	
The University of Texas at Tyler	https://www.uttyler.edu/	
University of Houston	https://www.uh.edu/	
University of Houston—Clear Lake	https://www.uhcl.edu/	
University of Houston—Victoria	https://www.uhv.edu/	
University of Houston—Downtown	https://www.uhd.edu/	
University of North Texas	https://www.unt.edu/	@UNTfirstgen
University of North Texas at Dallas	https://www.untdallas.edu/	
West Texas A&M University	https://www.wtamu.edu/	

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