

TOGETHER BUT APART: HOW UNIVERSITY ACCESSIBILITY
STANDARDS FAIL TO DELIVER FULL INCLUSION AND WHY IT
MATTERS

Kate Strickland

TC 660H
Plan II Honors Program
The University of Texas at Austin

May 7, 2019

Rhonda Evans, Ph.D.
Department of Government
Supervising Professor

Bartholomew Sparrow, Ph.D.
Department of Government
Second Reader

Abstract

Author: Kate Strickland

Title: Together but Apart: How University Accessibility Standards Fail to Deliver Full Inclusion and Why It Matters

Supervising Professors: Rhonda Evans, Bartholomew Sparrow

The Americans with Disabilities Act and the 1973 Rehabilitation Act serve as the primary laws permitting students with disabilities access to postsecondary education free from discrimination. However, the reality of campus accessibility falls far short of the legislation's apparent promise of universal access. This failure derives from philosophical foundations upon which current legislation rests: current laws promote *formal equality* as opposed to *full inclusion*. To be fully inclusive, students with disabilities must have equal access to classrooms, buildings, pathways of travel, and the social framework of universities. I argue that even universities that comply fully with the ADA nevertheless discriminate against students with disabilities.

Focusing on the University of Texas at Austin (UT), this study first determines whether UT, an ADA-compliant campus, is *fully inclusive*. Second, the experiences of students with disabilities are gathered to determine the effect of the lack of full inclusion on the experiences of students. I argue that UT possesses a twofold problem: the physical environment of many classrooms, buildings, and general pathways of travel were not fully inclusive, but, perhaps even more significant, there was a definite attitudinal barrier preventing students with disabilities from being fully included within the social framework. As a result, this study provides recommendations to improve the physical environment and, more importantly, the social environment through mandatory disability awareness trainings for staff, faculty, and students in order to promote a more inclusive university environment.

Acknowledgments

I would first like to express my deepest gratitude to my thesis supervisor, Dr. Rhonda Evans for her constant support and willingness to take on this project. Not only is she the reason I first became interested in social science research, but she always encourages me to advocate for myself and has become an incredible ally and disability advocate herself. Thank you for helping me through the constant hurdles this project encountered over the last year. We made it!

I would also like to thank my second reader, Professor Bartholomew Sparrow who provided me with great feedback throughout this project and served as a sounding board for a lot of the formulation of this study. He helped me explore different areas of this project I otherwise would have overlooked.

Thank you to my family and friends who supported me after my accident and helped me return to UT as soon as I possibly could to finish my undergraduate education. It only took a couple bonus laps, but I am *finally* finishing the program!

Thank you to the students who graciously took part in this study and proved willing to share all their experiences as UT students with disabilities, both good and bad, with me. This project would not have been possible without you all's assistance.

Finally, thank you to the campus partners who were willing to share information with me and help me along the way. I hope you find this project useful!

Table of Contents

List of Tables	vi
List of Figures	vi
Introduction	1
1. Disability and Higher Education: Systematic Disadvantage	5
Primary and Secondary Education: The Success of Inclusionary Practices.....	6
Accessibility Standards in Higher Education: The Case for Improvement.....	10
Beyond the Physical: The Need for Full Inclusion.....	15
2. A History of Disability Thought and Legislation in the United States	21
From Problems to People: The Passage of Section 504.....	21
The Failure of the Equality Perspective: The Case for Equity.....	23
Approaching Equity: The Americans with Disabilities Act.....	24
Not Quite Equitable: Major Shortcomings of the ADA.....	26
Implications of the ADA Shortcomings and Universality of Disability.....	31
3. Research Design and Methodology	34
Operationalizing Full Inclusion: Campus Measures of Full Inclusion.....	35
The First-Hand Perspective: Student Experience Measurements.....	40
4. The State of Full Inclusion at the University of Texas at Austin: A Twofold Problem ...	43
The Shortcomings of Formal Equality in the Physical Environment.....	46
CMFI: The Human Factor.....	51
Student Voices: The Overwhelmingly Debilitating Nature of the Attitudinal Barrier...	55
<i>Negative Faculty Experiences</i>	56
<i>Unaware Student Body</i>	58
<i>Wish for Disability Culture Center</i>	61
<i>Transitional Support</i>	62
<i>Physical Campus</i>	63
5. Toward a More Fully Inclusive Future: Recommendations for Better University Standards	66
Leading Attitudinal Change: The Imperative for Faculty Training.....	66
Student Disability Awareness Training.....	68
Accessibility Mapping.....	69
Priorities for the Physical Environment.....	70
Pathways of Travel.....	70

Classrooms.....	71
Door Actuators.....	72
Communication and Connection with Campus Partners.....	72
Room Viewer for Registration.....	73
Campus Disability Tours.....	73
Accessible Copying and Scanning.....	74
Conclusion.....	75
Appendix A: Campus Measures of Full Inclusion Criteria Explained.....	76
Buildings.....	76
Classrooms.....	77
Pathways of Travel.....	79
Appendix B: Campus Accessibility and Student Experience Survey.....	80
Appendix C: Full Results of the CMFI.....	82
Buildings.....	82
Classrooms.....	83
Pathways of Travel.....	88
References.....	91
Biography.....	102

List of Tables

Table 1: Students Registered with SSD by Disability

Table 2: Identifiers and Demographic Information on Interviewed Students

Table 3: Pathways of Travel Route Times by Accessibility

Table 4: CMFI Building Measurements Abbreviated

Table 5: CMFI Classroom Measurements Abbreviated

List of Figures

Figure 1: CMFI Pathways of Travel Route 1 GAR to PAI to WAG

Figure 2: CMFI Pathways of Travel Route 4.1 SSB to SZB

Figure 3: CMFI Pathways of Travel Route 4.2 SSB to SZB

Figure 4: CMFI Pathways of Travel Route 2 WAG to MEZ to RLP

Figure 5: CMFI Pathways of Travel Route 3.1 SAC to FAC to BUR

Figure 6: CMFI Pathways of Travel Route 3.2 SAC to FAC to BUR

Figure 7: CMFI Pathways of Travel Route 5 RLP to UNB

Introduction

Upon discovering that the only elevator in the aerospace engineering building was out of order, my best friend looked at me and with an incredulous laugh declared, “Well Kate, I think we’re stuck in this building. On the first floor.” Stranded on the ground floor of that building, we watched as our classmates headed to the front door and easily exited, thoughtlessly hopping down the small, six-inch step at the doorway’s threshold. A mere six inches separated me from the outside, yet, sitting there in my bulky power wheelchair, I was as powerless as the broken elevator behind me.

My friend and I did manage to leave the building that day, but only after waiting 30 minutes for an elevator technician to arrive. The technician climbed atop the elevator and manually lowered us to the basement floor, the location of the building’s *only* wheelchair-accessible entrance or, in this case, exit. The door’s physical location – situated next to a loading dock – perfectly illustrates the social exclusion that such physical arrangements can create, for even if the elevator had been operational, I still would not have been able to leave the building alongside my peers.

When that occurred, I was a sophomore at the University of Texas at Austin (UT), and I regarded the incident as an isolated inconvenience, particularly so for my best friend who missed her next class while waiting with me. Over the next three years, however, I continued to encounter a series of similar barriers, both physical and social, across campus, leading me to conclude that there is a systemic problem with the current university accessibility standards. Despite the fact that state and federal laws mandate accessibility for people with disabilities, despite the fact that UT (mostly) complies with the letter of these laws, and despite the fact that UT maintains institutional infrastructure for providing necessary accommodations for students

with disabilities through an office called Services for Students with Disabilities (SSD), students with disabilities still face barriers in higher education such as the one I have described. This endemic problem persists because the current accessibility standards fail to deliver *full inclusion*.

I, better than almost anyone, understand what full inclusion means. When I arrived at UT as a bright-eyed freshman in 2013, I quickly acclimated to the life of a first-year student, eagerly joining student organizations, freely exploring the campus, and easily making new friends. Six weeks later, I was struck down by a vehicle while riding my bicycle. In the accident, I sustained a high-level spinal cord injury that left my body mostly paralyzed and me reliant upon a power wheelchair to get around. Returning to UT one year later, I found my university experience vastly altered. I faced classrooms, buildings, and housing arrangements that were minimally accessible. I also battled the stigma of being a student with an obvious physical disability, facing student organizations, professors, and a student body that was far from welcoming of students with disabilities. The stark difference between my experiences as a student without a disability and as a student with a disability inspired this research project.

Though motivated by my personal experience, this thesis marshals social science methods to elaborate the systemic nature of the problem, explains the difference between current legal protections and the concept of full inclusion, and documents the detrimental consequences experienced by students. It argues that universities must acknowledge that this problem is systemic, that existing disability laws fail to address the problem, and that the problem undermines the educational experiences of students with disabilities.

As its central question, this study explores whether a lack of full inclusion results in diminished inclusion for students with disabilities. For purposes of this research, I assume that UT (largely) complies with accessibility standards currently prescribed by the Americans with

Disabilities Act (ADA) and its complementary Americans with Disabilities Act Accessibility Guidelines (ADAAG), section 504 of the Rehabilitation Act, and the Texas Accessibility Standards (TAS). As such, this study does not evaluate whether the UT campus is ADA deficient. For example, I am not measuring doorways for compliant opening widths or ramp angles for compliant gradients. Instead, I advance two arguments. First, that ADA compliant campuses are not *fully inclusive* according to my conceptualization of that term. Second, that students with disabilities consequently experience diminished inclusion in ways that adversely affect their university experiences.

While the concept of full inclusion is prevalent in the relevant literature, there is less material on what specific criteria should be used to evaluate whether an institution delivers full inclusion. This thesis does just that. It establishes a base set of criteria that must be realized for students with *physical mobility disabilities* to be fully included within the framework of the University. Because my first-person experiences have largely driven the formulation of my criteria, the scope of the physical campus measurements has been limited to elements that students with physical mobility disabilities require for full inclusion to be realized.

Of course, it is important to note that disability is not experienced the same way by all individuals who identify as someone having a disability or disabilities even when the category of their disability or disabilities is the same. For example, within the category of physical mobility disabilities, there are individuals, like me, who use power wheelchairs, but within that same category, there are those with severe arthritis that makes mobility difficult and those who use a prosthesis after an amputation. Although all those individuals have a form of a physical mobility impairment, their specific access needs are not uniform. Therefore, access looks different to each person, and the needs of each person may vary widely. As the sole researcher on this project, I

formulated the physical measurement requirements to what students with disabilities similar to my own would require for the realization of full inclusion as I believe that I am uniquely equipped to speak to those accessibility needs. In the future, I hope to be able to expand the physical campus measurements to encompass a more diverse set of disabilities through collaboration with individuals who have different accessibility needs than my own.

While the physical campus measurements are largely limited to the needs of students with physical mobility disabilities, the first-hand experiences of students with disabilities collected throughout this research are not so limited. Instead, the perspectives of students with any type of disability have been included to give this project a wider range of first-hand experiences to speak to the diverse needs of students with disabilities in higher education and help in the formulation of recommendations to promote full inclusion of all students with disabilities in higher education.

The thesis proceeds as follows. Chapter 1 addresses the current status of students with disabilities in institutions of higher education and the roles of universities in providing for these students. It discusses the benefit of full inclusion in higher education for the entire campus community. Chapter 2 provides an overview of disability thought and the evolution of disability law in the United States, evaluating the efficacy of such legislation. In doing so, it discusses the difference between formal equality and full inclusion, elaborating the idea of *equitable access*. In Chapter 3, I detail the research design for a study of accessibility conducted at UT and the collection of the experiences of students with disabilities attending UT. The findings from this research are presented in Chapter 4. Lastly, in Chapter 5, I present recommendations for university campuses to increase their accessibility and improve their disability policies in order to promote full inclusion.

Chapter One: Disability and Higher Education: A Systemic Failure to Provide for Students with Disabilities

In the modern world, higher education has become a necessary requirement for many to compete in the global workforce, so it is imperative that American students are able to enroll in and complete their postsecondary education. Currently, one in three Americans hold a bachelor's degree or higher (Ryan & Bauman, 2016) with another twenty million Americans enrolled in degree-granting postsecondary institutions (US Department of Education, 2018). However, Americans with disabilities, a frequently overlooked and underserved subsection of the population, obtain postsecondary degrees at much a lower rate than Americans without disabilities. The US Census Bureau reports that among Americans aged 25 or older, those with disabilities are about half as likely to hold a bachelor's degree or higher compared to those without a disability (Ryan & Bauman, 2016). In a ten-year study, beginning in 2000, of a nationally representative sample of youths with disabilities, only about 7.9% of students with disabilities enrolled in four-year universities following high school graduation compared to 29.2% of youth in the general population. Additionally, only 40% of those students with disabilities were able to finish their degrees compared to 52.4% of the general population (Newman et al., 2010).

Of course, statistics dealing with students with disabilities run into the inherent problem of treating this group as a homogeneous subgroup with similar needs. As noted previously, the population of students with disabilities comprise a range of disabilities both in type and severity. As a result, students with disabilities may have different strengths, career goals, and postsecondary aims (Brand, Valent, & Danielson, 2013). However, the data does establish clear

disparities in the success rates of students with and without disabilities in higher education worth further exploration.

This chapter first considers the increasing number of students with disabilities in higher education, examining the evolution of policies aimed at increasing the success rates of students with disabilities in primary and secondary education leading to higher enrollment in postsecondary education. It then examines the role of universities in providing for students with disabilities, drawing upon the relevant literature and considering areas of improvement. Finally, the importance of full inclusion in higher education to promote the success of students with disabilities and the benefit of such inclusionary practices for both students with and without disabilities concludes the chapter.

Primary and Secondary Education: The Success of Inclusionary Practices

Currently, there are more students with disabilities enrolling in higher education than ever before (Seale, Georgeson, Mamas, & Swain, 2015; Riddell & Weedon, 2014). While some attribute this increase to a growing number of diagnoses or more students choosing to disclose their disabilities rather than a true increase in accessibility (Hopkins, 2011), others believe this significant increase can be explained by advances in legislation, assistive technology, and educational accommodations that now enable students with disabilities to be more successful in all stages of their educations (Huger, 2011; Moriña, 2017; Hadjidakou & Hartas, 2008). After all, The Convention on the Rights of People with Disabilities, in effect since 2008, evidences the international shift toward ensuring education on all levels for people with disabilities. With respect to higher education, the Convention calls for access to “general tertiary education, vocational training, adult education, and lifelong learning without discrimination and on an equal

basis with others” and has 162 signatories (UN, 2006). Notably, the United States, while a signatory and a legislative leader in disability policy at the time, failed to ratify this Convention within the US Congress.

While there may be widespread support for students with disabilities in the world today, the advancement of American students with disabilities in the educational realm has not been an easy journey. In fact, equitable access, or access that requires affirmative accommodation to account for differences in opportunities (Bird, 2018), for students with disabilities is an ongoing war spanning decades and pitting parental advocates and students against discriminatory educational policies at all levels of education. The battle for advancement in primary and secondary education serves as a prime example of this struggle and how inclusionary practices tied together with affirmative accommodations often lead to significantly higher success rates for students with disabilities.

Accompanying the disability rights movement that focused on the inclusion of people with disabilities in the workforce and public society, the 1960s and 1970s saw parents of students with disabilities who were segregated into special education programs in primary and secondary schools increasingly pushing for greater inclusion for their students. At the time, families often faced public schools that refused to educate children with disabilities or mandated that these children be placed in separate, special education programs that families frequently had to pay for while families with nondisabled students paid nothing for their children’s education. Even in cases where simple accommodations would have enabled students with disabilities to be successful in general education classes, primary and secondary schools continued to segregate students with disabilities from those without disabilities (Gartner, 2001).

In response to these discriminatory policies, widespread agitation for the inclusion of students with disabilities within the general curriculum of public primary and secondary schools ensued, culminating in two significant US Supreme Court cases. First, in *Pennsylvania Association for Retarded Children v Pennsylvania* (1971) the Court ruled that states could not decline to educate children it found to be “uneducable and untrainable in the public schools” because that violated the Fourteenth Amendment’s promise of equal protection by discriminating based on disability (Martin, Martin, & Terman, 1996). One year later, in *Mills v Board of Education of District of Columbia* (1972), the court furthered the protection of students with disabilities by ruling that schools could not refuse to educate these students because of “insufficient funds.” As a result of these Supreme Court decisions and the ever-increasing pressure from parent advocates, Congress launched an investigation that revealed 3.5 million children with disabilities were receiving an education that was not appropriate for their particular needs and another one million children who were being denied education altogether (Martin, Martin, & Terman, 1996).

In an effort to rectify this injustice by providing federal guidance and federal funding to state and local schools, The Education for All Handicapped Children Act (EHA) was enacted in 1975. This law ensured access to public education for nearly all students with disabilities and served as recognition that all students, even those with disabilities, were entitled to education. However, it did little to break down the segregation between students with disabilities who were isolated in separate special education programs from their nondisabled peers in general education. Although the law now provided for *formal equality* where students with disabilities could not be denied education, it did little to promote *full inclusion*. As a result of the separation,

students with disabilities had generally worse outcomes than students in the general curriculum (Gartner, 2001).

Fifteen years after the EHA was enacted, Congress reauthorized the law, changing its name to The Individuals with Disabilities Education Act (IDEA). With the new name came new requirements, including the ability of students with disabilities to receive access to the general curriculum, the provision of needed modifications and supports for students with disabilities to succeed in the general curriculum, and the specific planning of each individual student's education through Individualized Education Programs (IEPs) in consultation with a general education teacher at the student's grade level (Gartner, 2001). Going beyond formal equality, this new law provided for affirmative accommodation based on the individual needs of students in order to promote equitable access in primary and secondary education. As past research has shown, students with disabilities generally perform better when inclusive practices allow them to interact with nondisabled peers in general education classrooms (Leonard, D'Allura, & Horowitz, 1999; White & Weiner, 2004). These new requirements enabled students with disabilities to be held to higher expectations, and those who were previously held back by discriminatory policies, to succeed in the general curriculum, eventually moving on to better job prospects or admission to postsecondary education.

The data reflect these improvements. According to the US Census Bureau, nearly 80% of students with disabilities are now finishing their secondary education compared to 90% of the general student population (Ryan & Bauman, 2016). A 2010 report published by the US Department of Education examined the outcomes of students with disabilities before and after IDEA, finding IDEA has contributed to significant increases in students with disabilities actively

participating in general education classrooms as well as an almost 16 point increase in students with disabilities graduating from high school in the 2007-2008 school year compared to the 1996-1997 school year (US Department Of Education, Office of Special Education and Rehabilitative Services, 2010).

Inclusionary practices and federal assistance for students in primary and secondary education clearly made a difference in the outcomes of students with disabilities. With more students completing their high school education, more students with disabilities seek and obtain admission to higher education each year (Moriña, 2017). While there still is room for improvement in the primary and secondary education of students with disabilities (Brand, Valent, & Danielson, 2013), more focus must be shifted to the treatment of students with disabilities in postsecondary education in order to ensure that these students are successful both in finishing their postsecondary education and finding employment after graduation.

Accessibility Standards in Higher Education: The Case for Improvement

With increasing numbers of students with disabilities enrolling in higher education, the experiences of the students and the role of universities in providing for students with disabilities have become an increased focus of social science research. Higher education plays a crucial role in the lives of students with disabilities because it affords them significantly more opportunities in life, empowering students with disabilities to seek employment, live more autonomous lives, and gain access to greater economic opportunities (Fuller et al., 2004). Further, postsecondary education decreases the likelihood of the students falling into poverty later in their lives. Besides the economic benefits, students with disabilities who complete postsecondary studies also expressed greater self-valuation and self-respect (Tuomi, Lehtomäki, & Matonya, 2015).

However, receiving *access* to postsecondary education and *obtaining* a postsecondary degree are often two very different things for students with disabilities. While the number of students with disabilities enrolling in universities has significantly increased, many still face institutional barriers to their successful completion of postsecondary education with only 34% finishing degrees in four-year institutions (Brand, Valent, & Danielson, 2013).

So, what is the role of universities in providing for students with disabilities? Drawing from both section 504 and the ADA, universities are required to provide reasonable accommodations and protect students with disabilities from discrimination. First, to ensure academic accommodations are met, most universities have established specific disability services offices dedicated to providing students with disabilities with needed accommodations (Cory, 2011). Because students with disabilities comprise a group rife with heterogeneity, accommodations are typically determined on an individual basis through meetings with the disability services office. Coordinators are tasked with assigning specific accommodations for students to have equitable access in their classes. Examples of academic accommodations that students may require include extra time on testing, reduced course loads, flexible attendance, assistance with notetaking, and access to course materials in alternative formats. While these academic accommodations are certainly crucial to the success of students with disabilities, many disability services offices *only* focus on providing for students in the realm of on-campus housing and academics, leaving students with disabilities to fend for themselves in areas of recreation, student activities, and employment during and after higher education.

In contrast, many colleges are committed to providing more than what is legally required for students of color, different gender identities, different nationalities, or other minority

classification (Cory, 2011; Claiborne, Cornforth, Gibson, & Smith, 2011). Things like centers for gender and sexuality have been established on university campuses with the goal of providing information to the student body as well as resources for students who may be exploring their gender or sexual identity. Such a center devoted to disability could go a long way toward raising awareness not only among the student body but also help students who may not know that they qualify for academic accommodations based on conditions that they may not have previously considered as a disability such as many mental health conditions like depression.

Even with offices that only provide academic accommodations, the onus is on the students themselves to seek out needed accommodations. Individualized Education Programs (IEP) provided for by IDEA and used in primary and secondary education do not automatically carry over into postsecondary institutions (Madaus & Shaw, 2004). Whereas in primary and secondary education, the burden is on the school district to identify students with disabilities and provide necessary accommodations, accommodations in universities necessitate the student to self-identify, seek out necessary accommodation, and provide required paperwork proving their disability, typically from doctors or psychologists (Simon, 2000; Madaus & Shaw, 2004; Wolanin & Steele, 2004). In one-on-one consultations, students typically meet with coordinators at disability services offices to discuss their disability and its possible impact on academics. Together, the student and the coordinator discuss possible appropriate accommodations, but it is ultimately up to the coordinator to determine the needs of the student (Cory, 2011). This can lead to problems when students are not granted accommodations that they either were using in primary or secondary education or are denied accommodations that the student could use but lacks the appropriate documentation to be afforded that accommodation.

The second major way universities are required by law to provide for students with disabilities is through the provision of access within the campus. The law mandates universities establish accessible buildings and classrooms on campus to provide students with disabilities access to their classrooms and on-campus housing, if available. Current accessibility guidelines provided by the ADA as well as the Texas Accessibility Standards (TAS), however, only mandate minimal accessibility. For example, the guidelines provide only for “at least one” path of access or “at least one” accessible entrance to a building. Similarly, not all residence halls must be accessible as universities only need provide accessible rooms in some of the dormitories. As a result, students with disabilities, while technically able to access their classrooms and other campus buildings, are not able to have the same meaningful access as their nondisabled peers.

This concept of “at least one” forms much of the gap between formal equality and full inclusion. Particularly on older campuses that consist of mostly older buildings where accessibility had to be achieved through renovation, the “at least one” requirement typically means that there is *only one* accessible pathway and entry point. Compounding the problem, there is no requirement that the accessible pathways or entry points be in the most commonly used areas or main entrances. Inevitably, buildings are made accessible through the least cost method, meaning accessible entrances are often not front entrances but instead are located on the sides or back of buildings. As a result, students with disabilities are effectually segregated from their nondisabled peers. Although the concept of separate but equal was overruled in the US Supreme Court decision *Brown v. Board of Education of Topeka* in 1954 in matters relating to race, separate but accessible entryways, even when located in entirely different areas of the building, are still legal today.

Similarly, accessibility guidelines only mandate that students can enter classrooms. There is no requirement for the provision of physical equal access within the educational space. For example, in a classroom with steps leading to the front of the room, often referred to as a ski slope style classroom, the law does not require that a student in a wheelchair be able to access the front of the room. But, without a way to access the front of the room, students with disabilities are forced to present from the back of the classrooms while their nondisabled peers get the benefit of visual feedback from their audience. Likewise, there are no provisions that call for students to be able to access the back of the room which may be instrumental for inclusion within social frameworks or group activities. Again, without specific guidelines mandating equitable access, often renovations do the bare minimum to make the space usable, but not truly functional, for students with disabilities.

Universities do provide for students with disabilities through disability services offices and the creation of at least minimally accessible campuses. While both these innovations, when provided for under the law in the 1990s, marked milestone innovations that allowed students with disabilities to finally experience easier access to higher education at the time, they do not do enough to promote the successful completion of postsecondary education for students with disabilities. Though students may have access, at least minimally, to universities, it is time to take these standards a step further toward the full inclusion of students with disabilities in order to foster an environment where students with disabilities receive equitable access for the best possible chances of success.

Beyond the Physical: The Need for Full Inclusion

Even when universities adequately deliver academic accommodations and accessibility requirements, students with disabilities still encounter many more barriers to their success which lead to significantly worse outcomes in terms of final degree classification when compared to students without disabilities (Riddell, Wilson, & Tinklin, 2002). In fact, students with disabilities are more likely than their nondisabled peers to drop out of higher education particularly during the beginning of the semester due to intense feelings of isolation (Moriña, 2017; Lombardi, Murray, & Kowitt, 2016; Quinn, 2013). As a result, numerous scholars call for inclusionary educational practices aimed to produce full inclusion of students with disabilities (Fuller, Bradley, & Healey, 2004; Prowse, 2009; Moriña & Morgado, 2018). Defined in the educational context, full inclusion consists of equitable access both in the physical campus environment and educational course material as well as within the social framework of the university.

To evaluate the current conditions in the higher education academic environment, researchers typically focus either on the experiences of students with disabilities or the attitudes of faculty members toward these students. When it comes to students, studies have found that negative faculty attitudes, architectural barriers, and inaccessible information all serve as barriers to the success of students with disabilities even in universities where current accessibility standards are largely being upheld (Moriña, López-Gavira, & Molina, 2017; Fuller, Healey, Bradley, & Hall, 2004; Leyser et al., 2000). In addition, students report having to work significantly harder to manage their disability and succeed in postsecondary education. In a Spanish study of 44 students, students with disabilities stated that they had to work twice as hard

as their nondisabled peers and only achieved half as much success due to the barriers they consistently face and having to “adapt the system” to their own needs (Moriña, 2017).

Within classrooms, students often find themselves not fully included in study groups or classroom activities because of their disability (Leyser et al, 2000; Redpath et al., 2013). Another study reports that the physical environment of the classrooms disadvantages students by preventing their ability to reach the front of the room due to stairs or platforms, inadequate lighting that prevented students from being able to see blackboards, and background noises that proved distracting (Moriña & Morgado, 2018).

Additionally, other studies report students with disabilities face negative social and cultural barriers at universities (Hopkins, 2011; Mullins & Preyde, 2013). At times these negative social and cultural climates can lead to students hesitating to disclose their disability or use accommodations, particularly for those who have invisible disabilities or disabilities that do not manifest themselves externally (Moriña, 2015; Hadjidakou & Hartas, 2008). Some students with invisible disabilities face accusations from their peers of unfair advantages when utilizing their accommodations (Hong, 2015). Mullins and Preyde (2013) explored the experiences of students with invisible disabilities at a Canadian University. They found that while students with invisible disabilities often find themselves treated more “normally” among the student body, the students often find their disabilities questioned and misunderstood. In fact, many of the students chose to hide their disability for fear of being stigmatized because of the lack of awareness of invisible disabilities among the student body (Lourens & Swartz, 2016). Others expressed interest in some form of external indication of their disability to increase the validation of their disabilities among the student population. Regardless of whether students have an invisible or

visible disability, the social and physical environment of classrooms frequently denies students full inclusion, disadvantaging and isolating students with disabilities.

Besides difficulty integrating within classrooms, one of the most significant problems that students with disabilities identify arises when professors are unwelcoming, ignorant, or unwilling to adapt to their students' academic needs and accommodations. While some studies of faculty attitudes toward disability have shown positive dispositions of professors towards students with disabilities (Lombardi, Vukovic, & Sala-Bars, 2015; Zhang et al., 2010), students still overwhelmingly report faculty attitudes as one of the primary barriers they face (Moriña, Cortés-Vega, & Molina, 2015). In fact, in a reflective narrative study of journal entries from 16 students with disabilities collected over 10 weeks, students reported feelings of judgment, humiliation, and embarrassment when dealing with professors both in class and privately (Hong, 2015). Students also wrote that professors treated them differently after disclosing their disability, and many of the students ultimately dropped out of courses where professors were unwelcoming or critical of their accommodations. Although accommodations are supposed to be legally guaranteed, students report professors subjectively choosing which accommodations to provide to their students (Mullins & Preyde, 2013). Another study found that the distancing attitudes of instructors could be explained by internal factors to the instructors and contributed to the exclusion of students with disabilities, leading to a negative impact on student motivation and success (van Jaarsveldt & Ndeya-Ndereya, 2015).

Instead of contributing to exclusion, it is imperative that instructors receive training in disability, proper execution of accommodations, and inclusive educational practices. Such disability focused training has been connected to an increased likelihood of professors

understanding and carrying out legal responsibilities related to academic accommodations, minimizing instructional barriers, and spending more time helping students with disabilities (Lombardi & Murray, 2011). As one of the most consistent contacts especially for new students starting their university education, professors serve a unique role in the transitory period as students with disabilities move from secondary education into universities. Therefore, these professors serve crucial roles in establishing what Thomas and Heath (2014) termed the “social inclusion learning experiences.” Because the first year in postsecondary education has been found to be a determining factor in whether students ultimately succeed (Goodman & Pascarella, 2006), professors need to lead the way in establishing a welcoming environment within the classroom.

Many scholars believe that the most effective way of providing for a truly inclusive educational environment utilizes the Universal Design of Instruction (UDI) (Lombardi & Murray, 2011; Moriña & Morgado, 2018; Lombardi, Vukovic, & Sala-Bars, 2015; Moriña, 2017). UDI originally emerged from the architectural concept of universal design, and the primary purpose of UDI is to design an accessible environment for the greatest number of users (Lombardi & Murray, 2011). CAST, a nonprofit education research and development organization further refined the ideas of UDI in the 1990s into a curriculum-specific set of guidelines called the Universal Design of Learning (UDL). Emphasizing three major principles, UDL calls for instructors to offer students multiple means of representation, expression, and engagement (CAST, 2008). In effect, students would automatically have multiple points of access to the information in classes, lessening the need for specific individual accommodations. Of course, UDL does not completely negate the need for accommodations, such as a student who

needs a sign language interpreter, but it affords students the flexibility to engage the material and represent their knowledge in the ways in which they learn and perform best.

Lastly, inclusive education should not be understood to only benefit students with disabilities. Captions on a video not only benefit students with hearing disabilities, but also students who speak English as their second language. Flexibility in the method of teaching helps students who have different learning methods regardless of disability. Madriaga et al. (2010) found that students with disabilities and nondisabled students faced similar barriers in learning and assessments. For example, nondisabled students reported missing classes for medical reasons and having a difficult time catching up. Other nondisabled students had difficulty understanding the readings, requiring additional tutoring. UDL would help all students perform better, and, therefore, professors should be instructed in the principles of UDL to begin to implement some of the ideas within their own course curriculum.

Access without support is not opportunity (Tinto, 2008). Although students with disabilities attend universities in increasing numbers, too frequently they lack the support from universities that they require to succeed on par with their nondisabled peers. Redpath, et al. (2013) found that schools with greater inclusivity possessed the most effective means of fighting divisiveness and discriminatory attitudes, providing the most effective means of combating discrimination and promoting an inclusive environment. Full inclusion benefits everyone and serves as a basis for a fair and equitable society (Moriña, 2017), but unfortunately it is not provided for in current accessibility laws. Instead, American accessibility laws are plagued by a focus on formal equality instead of equitable access and full inclusion. Chapter 2 further explores

this distinction and focuses on the ramifications of this legal shortcoming in the American system.

Chapter Two: A History of Disability Thought and Legislation in the United States

The evolution of disability thought and legislation has significantly improved from hardly considering people with disabilities human beings to prohibiting discrimination based on disability. However, one of the central problems in the American approach to civil rights is the tendency to treat everyone the same under the law. When it comes to disabilities, inherent differences in ability and opportunity must be accounted for in order to provide necessary affirmative accommodation to ensure equitable access (Bird, 2018). While current accessibility laws do provide for accommodations, they are still plagued by some notable shortcomings.

This chapter first explores the build up to the first disability civil rights law and the impact of section 504 on the American legal system. It then discusses the need for an equity-based perspective when attempting to provide for people with disabilities under the law, drawing on the shortcomings of equality-based legislation in the disability context. Next, the ADA and its inherent weaknesses are explored before concluding with a modern approach to the conception of disability as a universal experience and the need to push for wider reaching disability rights laws.

From Problems to People: The Passage of Section 504

In the beginning, people with disabilities held little value to society. Forced to rely upon charitable organizations, churches, and family, the disabled community had no real prospects of employment or education, and society largely viewed this as a necessary consequence of the individual's medical condition. Considered feeble-minded and incapable, people with disabilities faced ridicule and exploitation in circuses, forced institutionalization, and marginalization (ADL,

2018). In fact, “the disabled were treated by the state as ‘problems’ to be dealt with and brought shame on to their families” (Bird, 2018).

This perception did not begin to change until after the World Wars when disabled veterans came home and expected the government to provide for them in exchange for their service. With the civil rights era in the 1960s, disability advocates joined other minority groups in advocating for equal access and recognition. Still, prior to the 1970s, the law did little to recognize persons with disabilities. Although the influx of disabled veterans shifted the societal attitude slightly, overwhelmingly society viewed those with disabilities as defective human beings or as belonging to a group of people in need of humanitarian, charitable aid. Either way, the consensus held that people with disabilities did not belong with the rest of society (Mayerson 1991; Switzer 2003). In the 1970s, disability advocates marched on Washington and lobbied Congress for the passage of disability rights legislation, fortunately to great effect.

Section 504 of the Rehabilitation Act, enacted by the federal government in 1973, became the first disability civil rights law, mandating that any recipient of federal financial assistance must end discrimination against persons with disabilities. This law challenged the traditional conception of disability in three ways (Mayerson 1991). First, by encompassing people with *all* forms of disabilities, it marked the first time that a cross-disability approach was used in legislation and effectively rendered “people with disabilities” a distinct minority classification. Second, section 504 applied the term “discrimination” to the treatment of people with disabilities – a legislative first. This shifted attention away from an individual’s disability and onto the limitations—primarily attitudinal, communicative and architectural—society imposed upon people with disabilities. Lastly, section 504 firmly established congressional recognition of disability discrimination at the federal level, following the example of earlier race

and sex antidiscrimination laws. Four years later, “disability” was added to the traditionally protected groups in a general federal antidiscrimination statute.

The Failure of the Equality Perspective: The Case for Equity

Though section 504 marked a significant milestone in the development of disability law and fueled the already highly active social movement to promote disability rights, the legislation was primarily informed by the concept of *formal equality*. Derived from the Aristotelian formulation of an arithmetic equality system according to which all cases should be treated identically to ensure justice (Standl 2017), formal equality seeks to treat all people equally under the law (Daum 2010; Burns 2009). Acceptance of the universal moral worth of all people, regardless of inherent characteristics, is widespread across Western societies (Standl 2017). The concept of formal equality underpins much of the antidiscrimination legislation in the US. Relying upon the Fourteenth Amendment’s equal protection clause and due process clause, equality is one of the foundational concepts of the American legal system.

While formal equality may suffice for discrimination based on race or gender, the equality perspective is inadequate when dealing with disability discrimination (Bird, 2018). Equality requires that every person be treated the same by the law. This is the idea that forms most of the American legal system. As the Declaration of Independence (1776) proclaims, “all men are created equal.” However, when dealing with disability discrimination, equality before the law does not consider the inherent differences in capabilities of people with disabilities. The metric, then, should not be equality but equity. “Equity relies upon accommodation for integration into the social order. Equity allows for diversity and nuance within society allowing for individual decision rather than requiring a mold producing only artificial equality” (Bird, 2018).

Consider the following example. Antidiscrimination laws based in formal equality require an institution of higher education to admit students regardless of race, gender, or disability. Each student must be treated the same. This policy enables a student with a disability to enroll in higher education, but because it does not require a university to make its classrooms accessible, that student is still functionally excluded from higher education. By treating persons as a homogenous group, differences in social, economic, and political status are easily ignored, thereby perpetuating the very discrimination formal equality seeks to eradicate (Burns 2009; Daum 2010; Standl 2017).

These shortcomings have led to calls for a transition from *formal* to *substantive equality*. In contrast to formal equality, which treats all people as equals under the law, substantive equality considers those characteristics that may put a person at a disadvantage relative to persons who do not share those characteristics (Standl 2017). Further, to establish a truly equal playing field, factors that prevent an individual from achieving equality of opportunity must be addressed through certain “affirmative interventions” (Standl 2017; Burns 2009). Continuing with the previous example, substantive equality requires universities to create accessible routes to all classrooms in order to provide students with disabilities equitable access to universities.

Approaching Equity: The Americans with Disabilities Act

The Americans with Disabilities Act (ADA), signed into law by President George HW Bush on 26 July 1990, appears to provide for more equitable access. Consisting of four major titles, the ADA defines disability in the legal context and prohibits discrimination against people with disabilities in employment (Title I), by government entities with respect to public services (Title II), and in public accommodations, by private businesses (Title III), and in

telecommunications (Title IV). The ADA and the Rehabilitation Act of 1973 form the backbone of disability law in America (Switzer 2003).

At the time, the ADA served as a groundbreaking innovation because it reflects a more modern view of disability, shifting the focus from a *medical model* of disability to a *social model* of disability (Mayerson 2007). According to the medical model, disability is an individualized problem that is often tragic, abnormal, and in need of a cure (Gavira & Moraña 2015; Taylor 2017; Fuller, Healey, Bradley & Hall 2004). The medical model rationalizes the exclusion of people with disabilities from everyday society because it defines them in terms of their disabilities and views them as “other.” By contrast, the social model of disability, sometimes referred to as the civil rights model, sees society as the source of the barriers to inclusion of people with disabilities. According to this view, it is not a person’s disability that serves to isolate him or her, but rather it is the attitudinal, architectural, and communicative barriers perpetuated by society that serve to separate people with disabilities from mainstream society (Morña 2017; Ryan & Struhs 2004; Fuller, et al. 2004). The ADA acknowledges these barriers as the source of discrimination and requires that “reasonable accommodations” be made for persons with disabilities to enable these persons to access their environments, provided that these accommodations do not impose an “undue burden” upon those who are obligated to make them (ADA 1990). The “reasonable accommodations” requirement reflects a basic tenant of substantive equality.

The ADA is undoubtedly a landmark piece of legislation that has advanced the disability rights movement. It empowers people with disabilities to ask for and receive reasonable accommodations in their workplaces and communities (Tucker 2001). Businesses and public entities are more aware of accessibility issues. Some even voluntarily exceed ADA requirements

either through modifications to existing structures or by addressing accessibility concerns in the course of new construction. As a result, society is more accessible than in any previous era.

Above all, the ADA elevated the issue of disability rights to an international platform such that most people now have some familiarity with the idea of rights for people with disabilities. In fact, awareness of disability rights is evidenced around the world with legislation like the ADA being passed in multiple other countries in a worldwide policy shift toward protecting the rights of people with disabilities (Tucker 2001; Ryan & Struhs 2004; Kantor 2015; Schreuer & Sachs, 2014). As previously referenced, the United Nations Convention on the Rights of Persons with Disabilities entered into force 18 years after the ADA (Kayess & French, 2008).

Not Quite Equitable: Major Shortcomings of the ADA

Although it represents a major advance, the ADA is no panacea. The ADA has several major shortcomings. Much of its weakness derives from the vague language that it uses to define a person with a “disability” as well as the ADA’s failure to specify what constitutes a “reasonable accommodation.” It falls to judges to elaborate the meaning of these terms. Too often judges do so in ways that constrain the scope of the law (Tucker 2000; Tucker 2001; Mayerson 2007). Section 3 of the ADA (1990) states:

The term “disability” means, with respect to an individual

- (A) a physical or mental impairment that substantially limits one or more major life activities of such individual;
- (B) a record of such an impairment; or
- (C) being regarded as having such an impairment

“Major life activities” include seeing, hearing, eating, sleeping, walking, and standing among many others enumerated in the ADA. While this definition is certainly expansive, it is largely subjective, leaving courts to determine whether a person is protected under the ADA on an individualized basis. According to one study, as many as 90 percent of the cases concerning employment discrimination on the basis of disability were thrown out of court on summary judgment, in other words, before a full hearing on the merits could be held (Mayerson 2007). The low success rate for employment cases affects the success rate of all other cases brought on the basis of disability discrimination, including those regarding educational discrimination. As the definition of who qualifies as a person with a disability narrows through the employment case decisions, the constricted application of disability carries over to cases brought on behalf of discrimination in education as well (Bowman 2011).

Many judicial decisions concerning the definition of disability, especially those of the Supreme Court of the United States, reinforce a traditional perception of disability and thereby operate to narrow the scope of the ADA. This is at odds with the Act’s goal of expanding coverage for people with disabilities (Mayerson 2007; Tucker 2000; Rozalski, Katsiyannis, Ryan, Collins, & Stewart, 2010). For example, in a trio of cases known collectively as the *Sutton* cases after the lead case, *Sutton v United Airlines, Inc.*, the Supreme Court, in 1999, established the concept of “mitigating measures,” according to which a person’s disability must be considered in light of devices or medications he or she may take to alleviate his or her disability. This is reminiscent of the medical model’s focus on “curing disability.” In the lead case, two twin sisters attempted to sue United Airlines for employment discrimination due to the airline’s vision requirements for its pilots. While their correctable vision allowed them to function normally, the airline had a requirement of 20/100 visual acuity for uncorrected vision that the

sisters failed to meet. After establishing the standard of “mitigating measures,” the Supreme Court remanded the case to a lower court, leaving it to that court to apply the standard to the facts. The lower court judge ruled that the sisters’ correctable vision did not constitute a disability under the ADA and dismissed the case (Rozalski, et al. 2010). To illustrate the implications of the mitigating measures standard, consider the following example. A court could summarily dismiss a claim made by an amputee who uses a prosthetic leg on the basis that he does not meet the definition of disability because the disability imposed by his amputation is entirely mitigated by the use of his prosthesis even if his using that prosthesis is the reason his employer rejected him.

The narrowing scope of who qualifies as a person with a disability became so extreme that only about one-third of the 43 million Americans the ADA was intended to protect were actually covered (Rozalski, et al. 2010). In 2008, President George W. Bush signed into law the Americans with Disabilities Amendment Act (ADAAA) to redress the problem. The ADAAA addresses three aspects of the definition of disability. First, a limitation on even a single major life activity can constitute a disability. Second, a condition that is in remission or is episodic can count as a disability if the condition, when active, substantially limits a major life activity. And third, mitigating measures, with the exception of corrective eyewear, are not to be used when determining the existence of a disability (ADA, 2008). As a result of the ADAAA, focus shifted from disputes over who qualifies as a person with a disability to disputes concerning the application of other vague terms in the ADA, namely those of “reasonable accommodation” and “undue burden” (Bowman 2011).

Like the difficulties encountered in interpreting the definition of disability, when trying to enforce the concept of “reasonable accommodations,” judges have agency to decide on a case-

by-case basis what those words mean in practice (Switzer 2003). According to the ADA, employers, businesses, or other covered entities like public schools must make reasonable accommodations unless such accommodations would impose “undue hardship.” Unfortunately, neither of these terms are clearly defined, leaving the law vulnerable to restrictive judicial interpretation. As the ADA states:

The term “reasonable accommodation” may include

- (A) making existing facilities used by employees readily accessible to and usable by individuals with disabilities; and
- (B) job restructuring, part-time or modified work schedules, reassignment to a vacant position, acquisition or modification of equipment or devices, appropriate adjustment or modifications of examinations, training materials or policies, the provision of qualified readers or interpreters, and other similar accommodations for individuals with disabilities.

Typical reasonable accommodations that must be made to existing structures include accessible entrances, elevators, and accessible restrooms to name only a few accommodations for typical physical/mobility disabilities. As for undue hardship, the law classifies these exceptions as those accommodations that would require significant difficulty or expense to implement. Determining what constitutes significant difficulty or expense is very subjective. In fact, in late 1980s, prior to the ADA’s enactment, the idea of such legislation was hotly contested, and opponents pushed back against the idea of reasonable accommodations, claiming that *any* accommodation would constitute an undue burden (Switzer 2003). While most critics have come to accept the requirement of reasonable accommodations, an active campaign continues to prevent people with

disabilities from seeking recourse in court when expectations of reasonable accommodations are not met. In February 2018, for example, the US House of Representatives passed a Bill that would amend the ADA to provide that “those wishing to sue businesses in federal court over an ADA public-accommodations violation must first deliver a written notice to that business detailing the illegal barrier to access” (DeBonis, 2018). After delivery of the notice, a business would have two months to devise a plan to address the complaint and an additional two months to act. In total, a person with a disability would be forced to wait *four months* for either the business to make effectual change or to seek recourse in court. The measure awaits consideration by the Senate and thus has not yet been enacted into law.

Even in cases where reasonable accommodations are provided and the ADA realizes its full potential, segregation of people with disabilities can still exist. While the ADA was intended to break down attitudinal, communicative, and architectural barriers, progress in this area has been slow at best (Switzer 2003; Mayerson 2007). This is the fundamental difference between the current disability laws’ mix of formal and substantive equality and the far more expansive concept of *full inclusion* of people with disabilities. While current laws mandate access to public institutions and private entities doing business with the general public, the ADA Accessibility Guidelines (ADAAG), the practical guidelines for accessibility that public and private entities must meet, do the bare minimum, failing to foster a meaningful basis for providing people with disabilities the same opportunities in life and access to their environment as everyone else. Accessible paths, entrances, and accommodations frequently separate people with disabilities from the pathways, entrances, or other methods that the rest of society uses, too often to the detriment of people with disabilities.

Implications of The ADA's Shortcomings and Universality of Disability

Rob Kitchin (2001) argues that the separation between accessible pathways and those that nondisabled citizens typically use reflects mainstream society's values and views of disability. Because society is built by people, the fact that there is a lack of access in many areas is proof that mainstream society does not value the inclusion of people with disabilities according to his viewpoint. In addition, forcing people with disabilities to experience what Kitchin terms "different geographies" because of societal barriers that are inhospitable to people with disabilities serves as a limitation of their citizenship, controlling where they can and cannot go. He argues to remedy this injustice, all new construction should be based around an inclusive landscape or what is known as *universal design*. The concept of universal design calls for inherently inclusive landscapes, where the design of environments, including the physical, technological and curricular, are as accessible to the greatest diversity of people as possible (Cory 2011; Kitchin 2001; Moriña 2017). For example, in the context of physical construction, the idea of universal design necessarily requires that all pathways, doorways, restrooms, and other elements of a building be as accessible as possible, thereby affording every user of the building equitable access to all areas and eliminating any need for special accessibility routes or entrances.

In the state of Texas, the Texas Department of Licensing and Regulation (TDLR) enforces the Texas Accessibility Standards (TAS), a series of codes that set forth exact specifications to which all new construction projects as well as renovation projects must adhere. Although most states in the US follow the ADAAG, Texas is one of a handful of states that the US Department of Justice permits to use its own accessibility standards because the state

standards are stricter than the ADAAG (Sargent, 1999). While this is true—the TAS, for example, requires that doorways be wider than does the ADAAG, and it has a more elaborate enforcement apparatus—the TAS, like the ADAAG, fails to embrace the principles of full inclusion and universal design. To illustrate, according to the provisions that define minimal accessibility, it is acceptable for a building to have only one accessible entrance, for buildings that are less than three stories high to have no elevators, and for buildings to have rooms that are not fully accessible (TAS, 2012).

Recent scholarship pushes society's conception of disability even further by promoting a conception of disability that repositions disability as a universal experience (Taylor 2017; Bickenbach 1996). Jerome Bickenbach (1996) sees disability as “an infinitely various but universal feature of the human condition.” According to his conception, everyone possesses some form of limitations, so disability is not exclusive to a certain group of people. Instead, those that we consider “people with disabilities” are just a group of people with, perhaps, different or more extreme limitations than the average person. Taking a similar view, Ashley Taylor conceptualizes disability as a universal spectrum that all humans deal with throughout their lives. In her “shared reality view of disability,” most, if not all, people at some point in their lives will experience some form of disability whether that be permanent or temporary, so disability is simply a universal condition of humanity and not isolated to a select few people (Taylor 2017). In other words, some who may not consider themselves disabled today could very well become a person with a disability in the future due to natural aging or injury. When viewing disability as a spectrum as opposed to discrete group of individuals, the logic behind universal design seems obvious. Instead of having codes that aim to modify buildings so a small subset of

citizens has access, universal design creates buildings that will be usable for all citizens at every stage of their lives, no matter their physical capabilities.

Clearly, the perception of disability within America has undergone extensive changes in the last 50 years. While some of that change is reflected in the evolution of disability rights legislation, the laws still do not do enough to ensure the full inclusion or true equitable access of people with disabilities in society. At the time the ADA was initially enacted, society did not have even basic accessibility provisions, so a law that mandated minimal accessibility made sense. For its time, the ADA was revolutionary and life-changing for people with disabilities who had been excluded from employment and public society for decades. That time is past. Now is the time the push for the full inclusion of people with disabilities, to fully realize equitable access. “Equality before the law does not work when the root of society’s problem is not the inability to recognize sameness, but an inability to fold in difference” (Bird, 2018). People with disabilities don’t need equality; we need equity. The ramifications of the laws’ failure to provide full inclusion in the educational context are explored in the following chapters.

Chapter 3: Research Design and Methodology

Clearly, students with disabilities frequently experience discrimination in higher education due to a variety of barriers (Moriña, López-Gavira, & Molina, 2017; Fuller, Healey, Bradley, & Hall, 2004; Leyser et al., 2000). As I have argued in the previous chapter, this failure arises at least in part due to accessibility standards that provide for formal equality instead of realizing full inclusion through equitable access. The next step, then, in connecting these legal failures with the lived experiences of students with disabilities was designing a research study to examine the two central arguments of this project. First, even ADA compliant campuses, those campuses that adhere fully to current accessibility standards, fail to deliver full inclusion. Second, as a result of this failure, students with disabilities consequently experience diminished inclusion leading to negative impacts on their educational experiences.

Two major measurement systems were created to examine the current state of full inclusion on a university campus: Campus Measurements of Full Inclusion (CMFI) and firsthand student experience surveys and interviews. For the former, I developed a quantitative metric that operationalizes the essence of full inclusion for students with physical mobility disabilities, considering specific elements of buildings, classrooms, and pathways of travel on the UT campus that must be present to facilitate full inclusion. For the latter, I created an Internet survey with a series of questions gauging first if the respondents experienced discrimination based on their disability and second whether that discrimination has had a negative impact on their academic experiences. Additionally, respondents were given the option to provide contact information for a follow-up one-on-one interview to delve deeper into the individual experiences of students and collect first-hand stories.

Before delving into the specifics of each measurement system, it is important to note the difficulties that this project faced when dealing with students with disabilities in higher education. Originally, this project was conceived as a three-campus study that would have compared UT-Austin with Texas A&M University and UT-Arlington. The comparative nature of the research design would have considered how various unique characteristics of each campus facilitates or thwarts full inclusion of students with disabilities to develop insight into specific features of a university's framework that may be helpful or harmful in the pursuit of full inclusion. Inexplicably, neither Texas A&M nor UT-Arlington granted my repeated requests for permission to conduct research on their campuses even though I followed the instructions that were provided to me. Permission was not expressly denied, but rather it was withheld. In the case of Texas A&M University, I was directed to the Vice President for Research's office where I was told, after repeated calls, that they had no way to authorize my study and did not know who I should reach out to next. At UT-Arlington, my calls and emails to multiple points of contact either resulted in directions to another person to contact or were never returned. In short, my requests languished in each university's bureaucracy. As a result, this research focuses solely on the UT-Austin campus.

Operationalizing Full Inclusion: Campus Measures of Full Inclusion

Because no empirical measure of full inclusion exists, I created a metric through which full inclusion can be assessed. I call it Campus Measures of Full Inclusion (CMFI). I limit my focus to students with physical disabilities for two reasons. First, I am most experienced in the needs of students with physical disabilities as someone who has lived with a physical disability for almost 6 years. And second, because this is a novel study, it seemed prudent to limit its scope for considerations of feasibility. Yet, even though I use the CMFI to study the full inclusion of

students with physical disabilities, the metric could easily be adapted to account for factors relevant to the inclusion of students with other types of disabilities. For example, to expand the scope of the CMFI for students with visual disabilities, the existence of braille on room placards in an accessible location and railings wherever there are terrain changes both in classrooms and in buildings would be added to the measurements.

First, the CMFI considers general campus information such as the age of the university, the number of students enrolled at the university, and the general geography and size of the campus. Because older, larger or more hilly campuses are inherently likely to be less inclusive, these variables are important to include in the notes when comparing campus features both against itself and with other campuses. While this information does not directly feature into any of the measurements, it is important to have on hand for the sake of comparison.

Next, general building information is measured. Again, the age and purpose of buildings are crucial control factors because older buildings are likely more expensive to make accessibility renovations, and campuses with limited construction budgets will likely focus on buildings that have a high volume of traffic and are related to student endeavors. For example, a building that holds general-purpose classrooms and the Government Department may be a higher priority to fully renovate than a staff only building that is mostly administrative offices. In addition to these two factors, the CMFI measures the number of access points to the building, the percentage of accessible access points, and the existence of elevators. While I am not measuring how well the campus adheres to ADA guidelines, there are a couple areas where the study takes specific interest in how the university carries out the accessible features. First, with elevators, I am also measuring the elevator's ability to accommodate a student in a wheelchair and additional occupants because elevators can be a socially isolating experience for students with disabilities

when they cannot accommodate multiple occupants. Second, I am commenting on the overall practicality of button placement on automated accessible doors as well as all whether the button operates a single door or both doors when there is a double door entrance. Because button placement can render automated doors functionally inaccessible, this additional requirement is crucial in assessing the existence of functionally accessible doors.

While there are hundreds of buildings on campus, I created a sample from all the buildings with general-purpose classrooms within them as well as commonly accessed buildings by students such as the Flawn Academic Center, Student Services Building, and Texas Union. From this list of 38 buildings, I randomly selected half or 19 of the 38 buildings for further consideration due to time and resource constraints. Data for these measures was obtained from floor plans provided to me by UT Project Management and Construction Services (PMCS), the accessible entrance map published online by the university, and firsthand field measures. For a complete explanation of the coding scheme see Appendix A. The complete list of buildings surveyed and an abbreviated version of data collected can be found in Appendix C

The next major area the CMFI measures is classrooms. Only general-purpose classrooms (GPCs) are included in the study. While specific departments may have other classrooms or specialized rooms like labs or theaters that are used exclusively in their individual programs, GPCs are the primary classrooms that any student who attends the university can reasonably expect to have classes in at some point during their educational experience. Though originally intending to visit each classroom on the campus, the impracticality of measuring when classes are always in session during the week and the buildings are locked on the weekends forced the study to rely upon data on GPCs obtained during a study that PMCS commissioned in 2015 that took pictures of almost all general-purpose classrooms. Whenever I was aware of classroom

renovations in the time since the study was conducted, I made sure to examine those classrooms in person, but I acknowledge there could be other classrooms that I was unaware had been renovated. Working from these pictures as well as the list of GPCs published by the UT Registrar, general classroom information, the state of accessible seating, and degree of equal access was coded. Of the 254 GPCs listed by the registrar for the spring 2019 semester, I was able to obtain data for 225 GPCs which is approximately 90% of all GPCs. For the complete coding scheme of classrooms, see Appendix A. For the complete list of all classrooms measured and an abbreviated version of data collected, see Appendix C

Next, the CMFI measures pathways of travel through a comparison of the pathways a nondisabled student travels versus that of a student who uses a wheelchair, necessitating she take only the accessible pathways on campus. Five different routes were selected to be measured. Three of the routes were based on previous course schedules that I have had throughout my six years on campus. These routes include three different buildings each where I had classes either consecutively after each other or with small one- to two-hour gaps in between. For example, route 1, goes from Garrison Hall to Painter Hall and ends at Waggener Hall. The last two routes were selected for their cross-campus nature, enabling a better look at possible problem areas of campus. Route four starts at Patton Hall in the East campus and ends at the Texas Union located in West campus. Similarly, route five starts in North campus at the Student Services Building and ends on the south side of campus in the Sanchez Building. To measure these pathways, one student without a disability and one student who used a wheelchair were instructed to travel from the start point to the end point of each route taking whichever path they would typically use while tracking their progress through a geo-tracking app and timing of the interval of travel. Each route was then charted on a campus map to show the similarities and differences the two

students took between the same places. For a list of routes and the instructions used, see Appendix A.

Lastly, the CMFI looks at the human factor which is comprised of campus departments and student organizations who actively work toward greater accessibility for students with disabilities. Because this phenomenon is incredibly difficult to capture through quantitative measures, the study focuses on two areas: disability-focused student activities and university resources for students with disabilities. The primary logic behind using these two measurements was that the existence of disability-focused student organizations and/or adaptive sports programs indicate a coalition of students interested in disability issues. The degree to which these organizations function within the campus, including things like membership rates and the number of organizations, could indicate the general interest of the student body in disability awareness. Though this is admittedly not a perfect measure, it serves as an indicator of overall student advocacy on disability issues. While most universities have some sort of disability services office for students with disabilities, the resources and programs such offices provide vary widely (López Gavira & Moriña, 2015; Cory, 2011). As such, the CMFI considers the services provided by the disability services offices as well as other disability-focused offices.

To explore this human factor, the study included interviews with the Assistant Director of Services for Students with Disabilities, the disability services office at UT and the ADA/Section 504 Coordinator and ADA Deputy Coordinator in order to gain a full picture of the state of a full inclusion at UT. UT Parking and Transportation, though unable to be interviewed, did provide information via email. Although the CMFI, as currently designed, does not give a single numerical output as a rating of full inclusion, it provides a profile of the quantitative state of full

inclusion for students with physical mobility disabilities that will be useful for administration as well as future studies that are able to compare full inclusion across universities.

The First-Hand Perspective: Student Experience Measurements

While quantitative measures serve a valuable purpose in measuring the built environment, the first-hand perspectives of students with disabilities offer the most valuable measure of the state of full inclusion. As several studies have noted, the lived experiences of students with disabilities evidence a far richer narrative on accessibility and the challenges that these students face daily (Moriña, 2017; Gibson; 2012). However, attempting to collect these first-hand perspectives raises a series of difficulties that researchers must contend with in order to gather the needed information, leaving many studies with very low sample sizes (Gibson, 2012; Claiborne, Cornforth, Gibson, & Smith, 2011; Hopkins, 2011). By law, students with disabilities are not required to identify themselves. This poses a significant problem for researchers because there is no conclusive list of all students with disabilities from which to create a randomized sample. Even if such a list did exist, privacy laws would prohibit the disclosure of student names and contact information. Therefore, researchers in higher education either must rely upon study posters to attract voluntary participants or dependence upon the disability service offices to be willing to contact potential research participants on the researcher's behalf. A further issue is raised when relying upon disability service offices, however, because in the United States, only students wishing to use academic accommodations need identify themselves to the disability services office. While the disability services offices do have records of students with disabilities on their campuses, there are likely even more students with disabilities who have chosen to not seek academic accommodations and would therefore be left out of any communications regarding the study.

Another major barrier that researchers run into trying to reach students with disabilities is advertising and carrying out their studies in a way that is accessible for all students. While flyers may be able to reach some students, students with visual disabilities may never see these flyers depending on the severity of their disability. When carrying out the study, some students may be willing to participate but are unable to because of an inaccessible format such as in a survey where being able to use a computer is a requirement for completion, for example. With such limitations both in the advertisement and conduct of the research, studies of students with disabilities are typically constrained to small sample sizes and snowball sampling where researchers encourage the students who are already participating in the study to reach out to their friends with disabilities to join the study as well.

With this study, not only was I facing the above limitations, but the disability services office on campus declined to send out a mass email to all the students registered with their office. Instead, the sampling for this study relied upon friendship connections and snowball sampling as well as a small mention in the SSD monthly newsletter to recruit participants. Though I realize the inherent limitations of such a small sample size and biased sampling methods, the individual experiences of even the small group of students with disabilities who did participate are valuable and should be taken seriously.

To capture the experiences of students with disabilities, the study created an online student survey that asked a series of questions intended to first gather basic information on the students including their academic classification, type of disability, and use of any mobility aids. The second part of the survey asked questions to establish discrimination, if any, that the student had experienced throughout their time in higher education. The third section asked questions aimed at measuring the degree of negative experiences resulting from their disability, if any.

Lastly, the fourth section solicited further participation in the study through individual interviews that the student taking the survey could choose to opt into by providing their contact information. The complete list of questions included in the survey can be found in Appendix B.

While the survey offered a simple method of obtaining general information on student experiences in an easy to use format to encourage higher participation rates, the one-on-one surveys provided a clearer picture of the real negative consequences of the lack of full inclusion. The one-on-one interviews, conducted in person, via Skype or phone were audio recorded and transcribed. During these interviews, I asked a series of optional questions focusing on multiple areas including general campus and building accessibility, experiences in classrooms and student organizations, and general impressions of the University and overall campus. Through these interviews, I was able to gain a more complete understanding of the real, lived experiences of students with disabilities at UT.

Drawing from both the quantitative CMFI and the qualitative student experiences, this research design provided a mechanism to explore the degree of full inclusion on a university campus. Although limited by privacy concerns, difficulty in sampling, and university hesitation, this research design proved effective, evidencing not only a lack of full inclusion in the physical environment, but also a larger issue in the social framework of the University where an attitudinal barrier effectually isolates and disadvantages students with disabilities at UT. These findings are fully elaborated in the next chapter.

Chapter 4: The State of Full Inclusion at the University of Texas at Austin: A Twofold Problem

Currently, Services for Students with Disabilities (SSD), reports nearly 2900 students registered with a disability on campus. Of course, this number does not account for students who choose not to self-identify. Nevertheless, the number of students registered with a disability continues to increase each semester. Table 1 shows the breakdown of students registered with SSD by category of disability in the spring of 2018 (SSD, 2018). It is important to note that 52% of students registered with SSD have more than one diagnosis on file.

Table 1: Students registered with SSD by disability

Disability	Number of Students	Percentage
<i>ADHD</i>	1107	0.4
<i>Autism</i>	44	0.01
<i>Deaf/Hard of Hearing</i>	73	0.03
<i>Learning</i>	490	0.18
<i>Medical</i>	355	0.13
<i>Mobility</i>	56	0.02
<i>Mental Health</i>	1415	0.52
<i>Brain Injury</i>	22	0.008
<i>Temporary</i>	28	0.01
<i>Visual</i>	35	0.1

With such diversity among the population of students with disabilities, providing meaningful access on university campuses becomes a challenging proposition. The aim of the findings of this project is to provide insight into the current state of the inclusion of students with disabilities, identify major deficiencies and provide a framework for addressing these problems.

The core finding of this study indicates that UT fails to guarantee full inclusion to students with disabilities in two major ways: significant architectural barriers prevent equitable access in the physical environment, and, more importantly, a pervasive attitudinal barrier divides students with disabilities from their faculty, staff and fellow peers. This attitudinal barrier often leads to discrimination, exclusion, and negative outcomes both academically and socially.

This chapter lays out the current status of full inclusion at UT through an examination of the CMFI results and the perspectives of students with disabilities. Because the six one-on-one interviews with students with disabilities were conducted anonymously, the names of the students have been replaced by numbers. Table 2 lists the demographic information and identifiers for the students interviewed along with their academic classification and category of disability.

Table 2: Identifiers and Demographic Information on Interviewed Students

Identifier	Category of Disability	Academic Classification	Gender
Student One	Physical/Mobility	Senior	Male
Student Two	Medical, Physical/Mobility, Psychological	Junior	Female
Student Three	Visual	Junior	Female
Student Four	ADHD, Medical, Physical/Mobility	Sophomore	Female
Student Five	Hearing	Junior	Male
Student Six	Physical/Mobility	Freshman	Male

The voices of these six students inform the evaluation of the results from the CMFI. Following an evaluation of the physical environment, the major themes from the first-hand experiences of students with disabilities reported via survey and interviews are considered.

The Shortcomings of Formal Equality in the Physical Environment

As discussed in the previous chapter, the CMFI took measurements of campus buildings, classrooms, and pathways of travel, looking at specific aspects of each that are essential in providing for the full inclusion of students with disabilities. Before going into the specific findings, it's important to situate UT in the evolution of disability law. Because UT is an older university, and the average date of construction for the buildings in my sample is 1958, most of these buildings were constructed before the ADA went into effect, meaning most of the accessible provisions were created through renovations. Additionally, UT is located on a very hilly terrain which is relevant when considering the levels on which some of the access points open onto as well as areas where pathways of travel may be inaccessible due to the gradients that a student in a wheelchair, for example, would struggle to go up.

Considering the age and physical environment at UT, it is hardly surprising to find that 42% of the campus buildings surveyed have inaccessible main entrances. Additionally, on average, only 60% of all of each buildings' entrances are accessible either with or without door actuators. Even more worrisome, seven out of the 19 buildings measured only have a single accessible entrance. Of those seven, only three have accessible main entrances.

So, what does this mean for full inclusion? As many of the students reported via the survey and interviews, they often have trouble finding the accessible entrance of the buildings they try to access. Without clear signage leading the way to the accessible entrances, especially

where accessible entrances are out of sight from the main entrance, many students reported spending extra time trying to find an accessible way into campus buildings. As a result of the difficulties locating accessible entrances and often finding only side or rear entrances accessible to them, many students expressed feelings of isolation, anger, and sadness when having to use what are, in effect, segregated entryways for students with disabilities. This this element precluding full inclusion in the physical environment will be further explored later in the chapter.

Unfortunately, the situation in general-purpose classrooms is not much better. In order to be considered a fully inclusive classroom, students with disabilities, in this case students with physical mobility impairments that require the use of mobility aids like a wheelchair, must be able to access the front and the back of the room as well as have, at the very least, some provision of accessible seating within the room. Classrooms with stepped tiers were automatically disqualified as candidates for full inclusion because students with mobility disabilities cannot traverse steps to fully engage with the student body within the room.

Of the 225 GPCs examined, only 108 or 48% of the classrooms even have the *capacity* to be a fully inclusive classroom. It is important to establish that a room having the capacity to be fully inclusive does not automatically guarantee the space *is* fully inclusive of students with disabilities. To illustrate, Student One reported that even in a classroom that qualified as fully inclusive where there were movable desks all on a level floor, he was prevented from reaching the front of the room by his fellow students not moving their desks to form a pathway to the front of the classroom to give a presentation. While this could have been rectified by a professor instructing the students to allow him through or the student himself speaking up, Student One explained that he no longer speaks up in situations like these because he feels like a burden on the other students when he makes them move their desks. Because in the past he always received

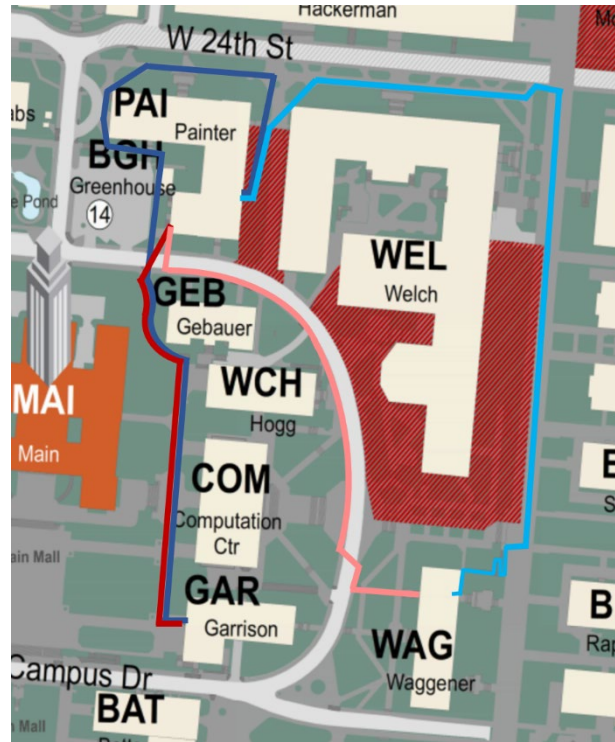
what he described as “dirty looks” from his fellow classmates in similar situations, he now resists speaking up and contents himself by presenting from his typical location in the classroom, wherever that may be.

Regarding elevators, all the buildings surveyed have at least one functioning elevator. While the vast majority of buildings have elevators that are large enough to be functional for students in power wheelchairs, three buildings failed this criterion. Although they technically meet the accessibility standards provided for by TAS, functionally, the elevators in Parlin, The Main Building, and the elevator near the main entrance of the Texas Union are very difficult to use. Student One discussed how he had a class on the second floor of Parlin, which necessitated taking the Parlin elevator because of the half flight of steps leading from the Calhoun elevators, and faced difficulty every day fitting himself in his power wheelchair, his service dog, and his attendant all in the elevator at once. Additionally, Student Two reported being unable to use the front elevator of the Texas Union due to size constraints. While there is a second, more accessible elevator in The Union, she expressed the desire for the signage indicating the existence and location of the second, more accessible elevator to be more prominent, so she could have discovered the additional elevator earlier in her studies.

When it came to measuring pathways of travel, the five routes selected for this study revealed key insights into the state of the pathways of travel at UT. In all five of the routes, the accessible route deviated from the pathway that a nondisabled student, who had attended the University for four years and considered herself very familiar with the campus layout, decided to take. Likewise, the student with a disability who documented the accessible paths had over five years of experience navigating the university campus in a power wheelchair, considering herself very knowledgeable in the best accessible pathways between locations. As the map in Figure 1

illustrates, the accessible route, depicted in the two shades of blue, significantly deviated from the routes of the nondisabled student, depicted in red and pink.

Figure 1: CMFI Pathways of Travel Route 1 GAR to PAI to WAG



In fact, on route 4, the two students were able to take the same pathway from the Student Services Building on their way to the Sanchez Building until the student with a disability had to backtrack upon encountering unexpected construction that completely blocked the accessible route to Sanchez Building from Speedway, depicted by the red area on the map. Figure 2 illustrates the first half of the route where the students were able to walk together, and Figure 3 shows where the two students separated when the nondisabled students continued walking up the hill, leaving the student with a disability to find an alternate route.

Figure 2: CMFI Pathways of Travel Route 4.1 SSB to SZB

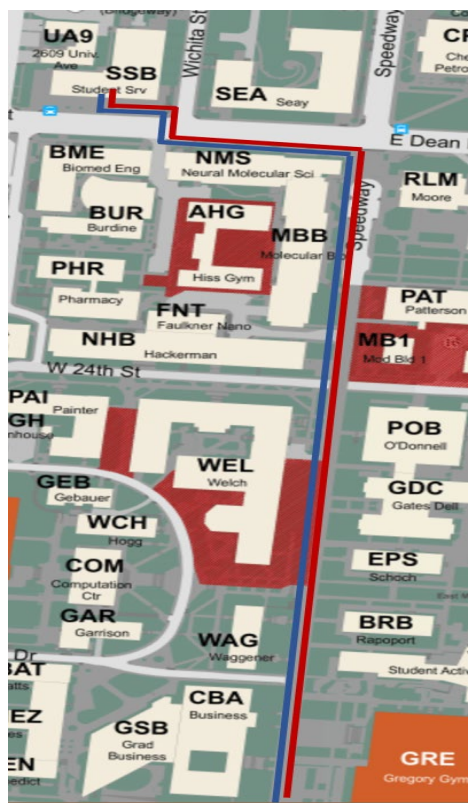
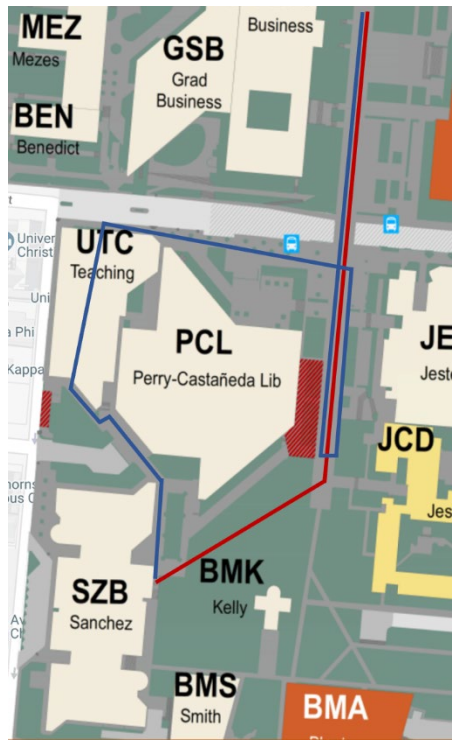


Figure 3: CMFI Pathways of Travel Route 4.2 SSB to SZB



Fortunately for the student, she was familiar with the alternative accessible route through the University Teaching Center (UTC) to access the Sanchez Building, so getting to her destination in spite of the unexpected obstacle only took a few extra minutes. However, Student Two and Student Three reported during their interviews that unexpected construction barriers often affect their typical routes to their classrooms, causing significant difficulty getting to classes on time when they must locate alternative accessible routes that are not clearly marked when a closure exists. The map illustrations for the other three routes can be found in Appendix C.

Another important observation from the pathway of travel measurements is the time differences the routes took for the student with a disability versus the nondisabled student. Table 3 lists the times traveled on each route by each student.

Table 3: Pathways of Travel Route Times by Accessibility

Route	Student with a Disability (accessible route)	Nondisabled Student (non-accessible route)
Route 1	10 minutes 9 seconds	8 minutes 11 seconds
Route 2	8 minutes 38 seconds	5 minutes 30 seconds
Route 3	15 minutes 48 seconds	13 minutes 29 seconds
Route 4	16 minutes 16 seconds	12 minutes 42 seconds
Route 5	9 minutes 27 seconds	7 minutes 29 seconds

On average, the time difference between the two students was two minutes and thirty-five seconds. While this difference may seem insignificant, when factoring in the time it takes for students with disabilities to wait on elevators to get in and out of buildings as well as navigating a heavily populated campus on a typical school day, these differences in time become detrimental to the student trying to get to class on time. In fact, these measurements were taken on a Friday afternoon when the campus was much less populated than on a typical school day

during passing periods. It is reasonable to expect that if these measurements were repeated during such a time, the time differences would be much greater. Though some students with mobility disabilities are permitted access to priority registration in order to plan their schedules in such a way to prevent taking back to back classes, at times students are forced to enroll in back to back required courses when alternatives to these requirements do not exist. For this reason, though priority registration certainly can aid students in trying to lessen the significance pathways of travel play in getting the classes on time, it cannot entirely negate the significant travel time differences when using accessible pathways.

CMFI: The Human Factor

The state of inclusion at UT begins to look more promising when considering the human factors involved in providing for accessibility. Among these, SSD, disability-focused student organizations, the section 504/ADA Coordinator and UT Parking and Transportation provide for students with disabilities in a predominantly positive way. First, within the last year, SSD hired an additional five full-time employees in their office, enabling the office to decrease the caseload of each coordinator to around 250 to 300 cases each. The office hopes that the expansion will enable them to focus on providing more than just academic accommodations to its students. Though the primary functions of the office have traditionally been improving academic and testing accommodations; managing housing accommodations and course load reductions; and managing deaf and hard of hearing services such as interpreters for students as well as campus events and performances, the expansion to 15 full-time employees, additional interns and student employees means that SSD is now looking into providing more resources for internship and employment opportunities, increased involvement in connecting and building communities for students with disabilities, and further promoting overall disability awareness on campus. This

impetus to expand resources for students with disabilities within the SSD office lends at least cautious hope for noticeable increases in opportunities for students with disabilities and a greater awareness of disability throughout the campus.

Disability-focused student organizations offer another glimpse into a way in which students on the UT campus consistently make efforts toward full inclusion for students with disabilities. Notably, The Disability Advocacy Student Coalition hosts events such as Dinner in the Dark, A Short History of the Disability Rights Movement and Disability Fest throughout the year aimed at raising awareness of disabilities among the general student body. Student Government features an executive agency called the Disabilities and Inclusion Agency that, during the 2018-2019 school year, focused on raising awareness of disabilities among student organizations through the development of a training specifically addressing accessibility in membership requirements and student organization events. Unfortunately, the continuation of the Disabilities and Inclusion Agency of Student Government is unclear. Lastly, Student Senate advocates for the creation of a testing facility both for students with disabilities and other testing needs on campus. This would shift the burden of overflow testing from SSD, which has minimal space to allocate to testing needs, and streamline the testing process for students with disabilities.

Promisingly, the Office of the Section 504/ADA Coordinator has been granted a dramatically increased budget for ADA renovations over the next few years. Whereas the discretionary budget for ADA renovations typically amounted to about \$1 million each year, that number has expanded to \$3 million each year for the next three years. With such an increased budget, the ADA Coordinator and her Deputy ADA Coordinator have already set in motion two major pathways of travel projects that will be completed over the next year. One will provide an accessible pathway between the Blanton and the Sanchez Building while the second will create

an accessible pathway between 21st St. and Inner Campus Drive, running between the back of Benedict, Mezes, and Batts and the McCombs Business School. In addition, the office has compiled a list of all the ADA deficiencies on campus as a part of an update to the ADA Transition Plan. These deficiencies have been prioritized, with student interest at the forefront, to be worked through in the coming years when budget and time permits.

In addition to pursuing the ADA Transition Plan, the ADA Coordinator leads the President's University ADA Accessibility Committee, a coalition of campus partners with a stake in providing accessibility for all campus members. Among these members are SSD, UT Parking and Transportation, Project Management and Construction Services, and others. Additionally, representatives from Student Government and from Student Senate are invited to the meeting to update the committee on the disability-related initiatives the two legislative student organizations are actively pursuing at the time.

While incorporating the student perspective serves as a valuable element of these committee meetings, it may be prudent for the committee to notify disability-focused student organizations of these meetings, so the organizations can either send a representative or present a letter comprising the experiences of students with disabilities for the committee's consideration. While the committee currently receives perspectives from students through Accessibility Q&As held two times throughout the year and hosted by Student Government in partnership with SSD, often the attendance at these events is poor due to scheduling constraints on the part of students. Student Three expressed some concern as to how much the ADA coordinator and the ADA Committee truly take the perspective of students with disabilities into account when deciding which initiatives to pursue and how to spend the discretionary ADA budget. Additionally, she would like to see the ADA Coordinator reach out to noted disability-oriented student

organizations in addition to the two legislative student organizations when seeking student perspectives. Such organizations include Disability Advocacy Student Coalition, The Student Council for Exceptional Children, and SignHorns.

Finally, accessible parking at UT frequently presents a challenge for students with disabilities. As Student One and Student Four bemoaned, there never seems to be available ADA parking spaces when they come to campus for their classes. Unfortunately, the limited number of spaces and often lengthy distances between available spaces and their classes are largely a byproduct of the topography and built environment of the University. As a result, both students reported a negative perception of UT Parking and Transportation.

However, these students would be surprised to learn that Parking and Transportation has undertaken initiatives to truly help students with disabilities trying to park on campus. Within the last year, the permit specifically for ADA parking spaces, the D permit, now allows access into University garages free of charge for students to park in when surface ADA parking is not available. Another way that Parking and Transportation is helping students with disabilities is through an upcoming permit called the D+ permit. Due to recent changes in the guidelines surrounding ADA parking by the Texas Department of Licensing and Regulation, many of the currently labeled ADA spots, particularly those that involve parallel parking, are no longer able to be labeled ADA parking. However, UT Parking and Transportation knows that these spots are heavily used by the disability community, so they have decided to designate the spots as Special Needs Spaces which will require a D+ permit to park in instead of getting rid of the spots altogether. Finally, the campus now must include ADA spaces based on the number of ADA rooms in the residence halls. These changes will occur over the next five years, and the number

of ADA parking spaces in the campus garages is set to increase with Brazos Garage possibly receiving up to 46 additional ADA parking spaces.

The results of the CMFI provided a mixed review of the state of full inclusion at UT. While the physical environment evidenced many barriers to full inclusion, the human factors proved the opposite. All the campus stakeholders interviewed for this study proved to be capable and proactively working toward a better campus environment. The effect that their efforts as well as the physical environment have on students with disabilities will be considered in the next section.

Student Voices: The Overwhelmingly Debilitating Nature of the Attitudinal Barrier

For the online survey, nineteen students comprising nine different types of disabilities, all levels of undergraduate study, and a variety of majors responded. Of those 19 respondents, only eight reported at least one instance of discrimination based on their disability. While that is still significant, it is far less than originally expected. This is quite possibly due to majority of the respondents having invisible disabilities. However, in an overwhelming majority, 18 of the 19 respondents agreed with the statement, “my campus needs to do more for students with disabilities.” Thankfully, these students chose to be proactive and participate in this research study in an effort to help the UT administration identify exactly what “doing more for students with disabilities” should entail.

Five of the 19 survey respondents opted into the follow-up one-on-one interviews. The sixth interviewee never took the survey but wanted to interview instead. Throughout all the survey responses and one-on-one interviews, several prevalent themes emerged. Surprisingly, the physical environment of campus was much less of a priority to these 20 students. Instead, the

effects of the attitudinal barrier dividing students with disabilities from their faculty, staff and peers comprise much of their responses and recommendations. This section will consider each of the five major themes arising from the first-person perspectives of these 20 students.

Negative faculty experiences. Nearly unanimously discussed, the most important area that students with disabilities reported negative experiences and a wish for the most improvement was in the general faculty awareness of disability and the execution of academic accommodations. In the surveys, students reported professors refusing to wear a microphone for the student to receive captions throughout class. One professor questioned a student's need for accommodations and her disability while others seemed unwilling to discuss academic accommodations with one professor sending email in response to a request for an accommodations meeting saying only, "is it going to take hours?" In fact, in the response blank for students to describe any negative experiences they have encountered during their time at UT, eight of the 11 students who chose to answer that question provided answers centered around negative experiences with faculty.

In the one-on-one interviews, four of the six students discussed ways that the low level of awareness of disability issues among their professors truly resulted in lower scores in their courses. For example, Student Four has, as one of her academic accommodations, flexible attendance because of her disability which, at times, does not allow her to attend classes due to seizures or getting physically sick from overwhelming pain. In a language course that she was taking in her freshman year, the professor decided not to honor her flexible attendance accommodation because he claimed that attendance was a core principle of his course and she would not be permitted to miss classes without penalties. Unfortunately, this is one of the shortcomings of the flexible attendance accommodation. Whenever attendance is deemed by the

professor a core tenet of the course, SSD can do little to advocate for the student. As a result, Student Four had to force herself to go to class to just be physically present. She reports that many of these days when she normally would have stayed home, she was not mentally present in class and felt incredibly discouraged that her professor could not understand her disability. During this time, she came very close to dropping out of the language program altogether because of the severity of this negative experience with her professor. Additionally, Student Four mentioned having other friends with similar disabilities who do not feel capable of taking a language course at all because of the necessary attendance component with professors who do not seem to understand the needs of students with disabilities.

Student Three reported a professor who divided the class up into groups, and, before dismissing the students to find their groups, loudly announced to the class, “can [Student Three’s] group please come down here to the front since she is less mobile?” This announcement made Student Three feel incredibly singled out and frustrated because the professor’s announcement was not true. While she has a visual disability, she is perfectly capable of moving about the room. She expressed the desire for professors, even well-meaning ones, to understand the effect that their actions have on students with disabilities and to ask before assuming someone needs their help.

Student One discussed how his least favorite part of every semester is the beginning because he always finds himself having to teach his professors how to accommodate him as a student with a disability. He commented:

When I give [my professors] my accommodations letter, my professors look at me like I have three heads. And then I have to go to their office hours and go step-by-step through every accommodation, what every single thing means and why they have to provide it.

In an effort to avoid this arduous process every semester, Student One frequently tries to only register for professors that he has had before. In his words, “it makes a world of difference when professors know what accommodations are, and I don’t have to teach them myself.” Not only does he feel like his professors truly care about him when they have prior knowledge of accommodations and disability, but he reports he does significantly better in classes when he is able to direct his efforts towards his coursework and not toward instructing professors in the use of accommodations.

Lastly, Student Six discussed how he had a professor one semester who was so clearly uncomfortable with disability to the point where the professor had trouble interacting with Student Six because of his obvious physical disability. All of the conversations Student Six engaged in with his professor were awkward, and he did not feel comfortable taking the course.

As Chapter 1 discussed, having a faculty that is familiar with academic accommodations and disability sensitivity fosters a welcoming and inclusive environment that is necessary for the provision of full inclusion. All the students called for a mandatory faculty training on disability issues to begin to rectify this situation.

Unaware student body. The next major area of concern to many of the students in this study is the general lack of awareness of disabilities among the student body. This part of the attitudinal barrier generally manifests itself in social life, student organizations, and group work both in and out of class. Many of the respondents to the survey wrote that they wish that student organizations were more accessible, and that the student body understood disability, especially when it came to the invisible versus visible disability distinction. Instead, the general student body seems to be incredibly uncomfortable with disability. Student Three said, “When we table [for my student organization], no one comes to our table, and the one time someone did come to

our table, they realized it was a disability table and jogged in the opposite direction. It's pretty sad actually."

When it comes to student organizations, three of the interviewees reported specific instances of discrimination. In one case, a social service organization was in the process of planning their annual formal for their members. Unfortunately, the organization wanted to hold the formal on a party boat on Lady Bird Lake, which was not accessible to students in wheelchairs. Although the organization briefly looked into ways to make the boat accessible, ultimately, they decided they still wanted to have their formal on a boat, excluding Student Two. In another example, Student Three was forced to play Pictionary even though she is unable to see well enough to play. Additionally, in a different organization, she was tasked with finding her "family group" for an activity that the student organization was engaging in. However, she recalled:

When I found my family group and sat down, I remember I think I said something, but they didn't even turn around or talk to me. I hard-core got the feeling that I was weird because I had a dog and was disabled. I felt very alienated. As we were walking away, the group kind just speeding up and I had trouble keeping up with them. I just felt horrible.

Shortly thereafter, she stopped attending that organization.

Three of the interviewees reported negative encounters with classmates when forced to break off into groups. The students reported difficulty finding groups that would often lead to professor intervention to force other students to work with them. Additionally, Students One and Three discussed having to overcome this barrier where the other students in their groups

automatically assumed they were the weakest link or incapable of keeping up with the group because of their disabilities.

Similarly, many of the interviewees reported difficulty working with study groups or on group projects outside of class because of the general ignorance of disability needs. Student One was placed in a group project where his group members only wanted to meet at an apartment that was inaccessible for his wheelchair. Additionally, they decided to meet only very late at night, which as someone with a significant physical disability, he was unable to stay in his chair that late at night when he gets up into the chair so early in the mornings. Although he contributed the best he could, one of his group members ultimately wrote a negative peer evaluation about his unwillingness to attend group meetings. As a result, he received a lower grade than the rest of the group.

Many of the other interviewees reported similar experiences with groups. Although they often feel like burdens by forcing group members to meet on campus, that is generally the best way that they can meaningfully participate. However, the consensus among the interviewees seemed to be to do whatever possible to avoid group work even if that meant reconsidering taking a certain class because of the difficulty of getting groups to accommodate for disability.

The recommendations from the students to change the student perceptions of disability included incorporating diversity and disability issues into new student orientation, invite guest speakers who also have disabilities, and the implementation of a one hour freshman course dealing with issues of diversity and minority groups which would include disability but also race and gender. Additionally, Student Five, who is also an RA, would like to see the residence halls put on programming for their students dealing with issues of diversity and inclusion.

Wish for disability culture center. With the student body often so unreceptive to students with disabilities, many of the students interviewed reported difficulty making friends among the general student population. Student Three talks about when she originally arrived at UT as a freshman, she thought she was bad at making friends. However, as she began meeting other students with disabilities, she realized the problem had nothing to do with her. “I’m actually great at making friends,” she laughed. “I’ve tried to make friends with regular people, but most of my friends at UT are disabled and the ones that aren’t all have some kind of minority identification.”

While students with disabilities often face difficulties making friends among the general student body, especially as freshmen, social networks and support systems are crucial for the success and retention of students with disabilities early in their educational careers (Gibson, 2012). For example, Student Four discussed during her interview how the overwhelming support network she found at her on campus job has had such a profound impact on her adjustment to university life. Though she has very little social life outside of this network, she attributes a lot of her resiliency and positive mental health outcomes to her ability to rely on this group of people.

Students Two, Three and Four all agreed that they would like to see more of an effort toward establishing a disability culture on campus. Students Two and Three would like to see the creation of something similar to the Gender and Sexuality Center (GSC) where students with disabilities could gather to socialize, advocate, and spread awareness of disability across campus. Like the Allies program at the GSC where students, faculty and staff can complete two workshops on LGBTQIA+ issues and receive recognition for their completion, a disability focused center could foster a similar series of trainings for disability issues to start creating a more aware campus. Additionally, Student Three would like to see a disability center start to

focus on how students with disabilities are feeling, not necessarily just how well they are being provided all of the accommodations they need. She would like to implement a quality of life survey and use the findings to start improving attitudes on campus.

Student Four is actively trying to get a living and learning community started in one of the residence halls for students of chronic illness. In her opinion, living so close to people who truly understand what she is going through is one of the best ways to build community and band together. In both cases, the students would just like a tighter knit disability community. With nearly 3000 students registered with a disability, there is not really a main hub for students with disabilities to gather together outside of the few, scattered student organizations.

Transitional Support. Multiple students in the surveys reported a wish that accommodations had been more readily advertised, so they would have known about academic accommodations earlier on in their higher education experiences. Additionally, two of the interviewees reported difficulty when touring the UT campus as a high school student. Student Two was left to her own devices to try to navigate a half flight of stairs in the Mezes building where an electric lift was installed for students in wheelchairs to get down the few steps. However, no one could find the key for the lift during her visit, so she had to rely upon people in the group to carry her down the stairs in her wheelchair to the classroom where the group was meeting. For Student Four, her campus tour proved incredibly exhausting because she had to participate in the regular campus tour where she walked all over campus without sufficient breaks. Both of these experiences are very negative and certainly discouraging for a prospective student.

Currently, there are no specifically designated tours for potential students with disabilities. Student Four also comments how there have been other initiatives to actively recruit

students of different races or first-generation students, but that there needs to be a similar program for students with disabilities.

Physical Campus. Finally, the physical campus environment served as the focus of each interview and many of the surveys. Comments typically revolved around the three categories that I have established already: pathways of travel, buildings, and classrooms. One of the most common remarks from the interviewees as well as the from surveys was the need for better wayfinding. Most students realize that updating campus to the point of complete accessibility is an unrealistic goal, so many of them point to the need for increased signage both in the exterior campus to find accessible entryways as well as within buildings to find accessible restrooms and classrooms. Student One provided an unfortunate example of the failure of current wayfinding when he was in the Pharmacy Building trying to find an accessible restroom. While he was on the first floor, he saw a sign that indicated that the accessible restroom was located on the second floor. Taking the elevator up a floor, he found the restroom on the second floor only to note another sign indicating the accessible restroom was, in fact, on the first floor. Checking both restrooms, he found that neither was accessible for someone in a power wheelchair, leaving him to make a mad dash to the Student Services Building across the street to finally use the restroom, seconds from disaster. This is but one example of the need that other students in the surveys addressed.

Additionally, one of the questions asked in the interviews involves the ability of students with disabilities to take the same pathways between classes as their friends. Unfortunately, four of the six students reported having to take different, accessible routes. Student Two summed up the situation quite well by observing:

Taking different routes always makes me feel pretty awful. There are two situations that typically happen. Either the person with you chooses to go up the way you can't, like up the stairs for example, so then you feel bad because you could have had the chance to talk with them or hang out with them, but now you can't. Or, you have your friend or someone with you go up that ramp, which is out of their way, which makes you feel like you're inconveniencing them and putting a burden on them. None of those feelings are great.

The other three students report similar feelings having to separate from their friends to take alternate routes to classes. Additionally, Students One and Two, both wheelchair users, report feelings of alienation, isolation, and like the University does not value them when they are forced to use isolated, accessible entrances that are located on the sides or back of buildings. Student Two comments, "The worst [entrances] are when they're in the back of the building like where they put the trash. Like Parlin, for example. I feel like it's segregated honestly."

Finally, classrooms proved a hot button topic in the interviews. Student One expressed his frustration at how the lack of full inclusion in one of his classes ended up costing him a letter grade. In his large auditorium style classroom, the only place in the room he could access was the back, so that is where he was forced to sit every day. Though initially he tried to participate in the class, he soon found the professor could not hear him from all the way in the front of the room, and as a student with a physical disability, he found it difficult to yell very loudly consistently. Frustrated, he gave up talking in class. At the end of the semester, the professor announced he would be giving bonus points on the final grade for all students who had been active participants throughout the semester. Unfortunately, Student One did not receive bonus

points, even though he would have been an active participant had he been able to sit closer to the front.

Student Two faced a similar situation in Burdine Hall where she only had access to the back of the room because of stairs leading down to the front. As a student in a wheelchair, she was unable to move closer to her peers in the class, turn in her own papers, or speak to the professor after class without previously arranging for the professor to come meet with her at the top of the room. Even more detrimental to her academic performance, in addition to her physical disability, she also has an auditory processing disorder where she sometimes has trouble understanding words. Because she was sitting so far back, she faced numerous instances throughout the class where she was not understanding as much as she would have been had she been able to sit closer to the board. Ultimately, she does think the layout of the classroom negatively affected her grade.

The first-hand experiences of students with disabilities provide rich first-hand accounts of barriers to full inclusion that these students face every day. Even though they attend a campus that is largely compliant with current accessibility laws, they still with all these barriers and problems enumerated throughout this chapter, in addition to trying to learn and perform in a rigorous academic environment. Strategies to address these issues will be discussed in the next chapter.

Chapter 5: Toward a More Fully Inclusive Future: Recommendations for Better University Standards

This study has proven that current accessibility standards fail to deliver full inclusion for students with disabilities. As a result, many students with disabilities experience discrimination and negative experiences both academically and socially. Short of changing the laws, what can be done to promote full inclusion for students with disabilities? Obviously, fully renovating campus environments to adhere to universal design principles, although a noble endeavor, is not feasible financially or practically. While this study does advise considering renovations to the physical environment, particularly with regard to pathways of travel, the majority of this recommendations chapter focuses on more practical, realistic changes that can be made on campus to have a positive effect on students with disabilities.

Drawing from my personal experiences as a student here at UT for six years as well as all the student perspectives I have listened to throughout the past year conducting this research, I make the following recommendations for improving UT specifically and for promoting full inclusion on university campuses more broadly.

Leading Attitudinal Change: The Imperative of Faculty Training

The absolute, most important thing a university can and should do for students with disabilities is mandate faculty training in disability and inclusive practices. The professor plays a crucial role in fostering a welcoming environment for students with disabilities both within the classroom and on the larger campus. When professors are knowledgeable and capable on how accommodations should be carried out and are willing to work with students with disabilities, the

students are able to focus on their studies and less on ensuring they get everything they require to then start trying to be successful in the course. When professors take the time to meet with students and ask what the students need to be successful and how professors can help, a course instantly becomes a more positive experience. If professors understood what students with disabilities actually go through, they would be more likely to be willing to grant leniency or accommodations such as with the issue in the language courses with attendance policies. As Student One commented, “when professors invest in us, we want to invest in their courses.”

The next question that arises is what should this training look like? In an ideal world, departments would have in-person workshops where SSD and actual students with disabilities would be able to train professors on disability sensitivities and disability issues, giving first-hand experiences of actual interactions with professors both good and bad to instruct on proper ways to carry out academic accommodations while remaining considerate and helpful for students with disabilities. However, these kinds of trainings would require a lot of coordination to schedule and ensure that professors attended.

The most important thing is that professors are exposed to ideas of disability awareness and academic accommodations in whatever format that may take. If it must be in an Internet module for practicality’s sake, then that is how it should be done. No matter what the mechanism, this training just needs to be mandatory for professors. What many do not know is that SSD already has a faculty training. However, it is not mandatory. Professors must seek out SSD’s assistance to learn about this training. Unfortunately, the professors who care enough to reach out are typically the ones who need the help the least.

Student Disability Awareness Training

Just like when professors are sensitive to disability issues and comfortable dealing with issues of accessibility in the classroom, the educational space becomes instantly more inclusive, when the student body becomes more inclusive of students with disabilities, coming to view disability as just another element of diversity, many of the physical access barriers will automatically become less restrictive on students with disabilities. When nondisabled students understand disability needs in group work, students with disabilities will have a much easier time finding groups, making friends, and meeting outside of the classroom. Student organizations need to be inclusive both of their members and in the events that they host for the public.

Not only is an increased awareness of disability benefiting students with disabilities on the campus, but nondisabled students learn crucial life skills through interaction with students with disabilities that they can take with them into the corporate world. The US Census Bureau reported in 2012 that people with disabilities comprise around 19% of the population, and, as such, nondisabled students will inevitably encounter people with disabilities in their professional lives. An increased awareness and sensitivity of disability issues can only serve to help them moving forward.

Here again, the question becomes how to educate the student body? In the past year, the Disabilities and Inclusion Agency of Student Government in partnership with Disability Advocacy Student Coalition and the Student Council for Exceptional Children created a disability awareness training specifically designed for student organizations. The idea was to present to student organizations directly in the hopes of spreading disability awareness among the student body. In addition, incoming freshmen must complete a series of modules on things like alcohol and sexual violence. Could that not be expanded to include diversity? Both seem like

worthwhile avenues to pursue. Lastly, Resident Assistants should receive disability awareness training, so they are equipped to deal with whoever may be living in their section of the residence halls regardless of potential disabilities.

Accessibility Mapping

The physical campus environment will not magically become fully accessible overnight. Although I urge campuses to work steadily toward making their physical environments universally accessible over the long-term, there must be a focus in making the existing environment as accessible as possible. A key element of providing the most accessible campus possible, even where the physical environment may be barrier ridden, is ensuring that accessible pathways can be easily found and followed by students with disabilities. Toward this end, accessible mapping must be a campus priority.

Currently, there are two different accessible mapping projects that serve as prime examples for ways in which universities can create practical, usable accessibility maps in real time. At the University of Pennsylvania, Mark Bookman spearheaded an effort to create an accessible space for all on campus through the Accessibility Map Project (AMP). AMP is a dynamic system that updates in real time based on crowd sourced information. Utilizing user-based perspectives of disability and what accessibility means, the app catalogs accessible features such as gender-neutral restrooms, accessible entries, rooms that are suitable for nursing among many other features that then become searchable within the app. Through Map-a-thons, the AMP team involves students with and without disabilities in learning how to use the app, how to document barriers and accessibility and sends them out onto the campus to continually update the map information. The second example, a fitness tracking company in Australia called BrioMetrix, produced an accessible mapping software they call Navability where wheelchair

navigation apps track the pathways their users are traveling in and around the city, documenting efforts and color coding the city based on ease of travel.

Though I am not an expert on mapmaking or how this would come about, both projects serve as interesting examples in ways in which UT can move toward a real-time accessible map for students with disabilities to navigate campus.

Priorities for the Physical Environment

Although complete accessibility overhauls for the entirety of the campus environment is utterly impractical, there are areas of the physical environment that I urge campuses to prioritize. Of course, meeting the ADA standards in all aspects of campus, and particularly including bathrooms, entryways, and ramps, is crucially important for students with disabilities to get around campus, but there are also some other aspects that go above what is legally mandated to have a true positive impact on the experiences of students with physical mobility disabilities.

Pathways of travel. First, pathways of travel comprise the most important category when considering physical accessibility. If students cannot get to buildings, then it does not matter how accessible that building may be, it is still functionally inaccessible. However, pathways of travel often become inaccessible for more reasons than just stairways, curbs or excessively steep gradients. Often, I and other students with disabilities experience temporary or even semi-permanent barriers functionally blocking accessible pathways. For example, there is a bike rack on the south side of the 23rd St., Circle near Patton Hall that, when full of bikes, makes that sidewalk completely impassable for someone in a wheelchair. Another way accessible routes can be rendered inaccessible on a moment's notice is when the big, bulky cord covers are used to cover electrical wires stretching across sidewalks. Power wheelchairs have a difficult time

getting over the plastic monstrosities, closing off typically accessible pathways. Lastly, pathways of travel often fall prey to careless students leaving bikes or scooters on ramps or other means of accessible travel. UT Parking and Transportation has made a considerable effort to raise awareness of proper scooter parking and penalize the students who persist in leaving scooters in improper locations through the imposition of fines. I encourage other universities to follow suit. Ensuring that physical pathways are as accessible as possible in all areas of campus should be a priority of every university.

Classrooms. Second, the layout of classrooms, as this study has shown, plays a significant role in whether a student is even *able* to be fully included within the educational space. Wherever possible, desks should be mobile. Additionally, although auditoriums are typically the least fully inclusive rooms, there are ways to provide students with disabilities multiple areas of accessible seating. For example, auditoriums should never have steps if it can be avoided. Instead, using sloped pathways allow students with wheelchairs to freely move from the front to the back of the room. Creating areas in the middle of the room through by removing a row of chairs or building in space in the middle also provides students with disabilities the flexibility to sit in the front, the back, or in the middle of the room, enabling them to interact with peers in the class more easily.

When renovating classrooms, access should be always be prioritized in the front of the room. In rooms where students are unable to reach the front of the room, they experience significant disadvantage through not being able to hear professors, to give presentations from the front of the room, to talk to professors after class or to turn in their own papers. Additionally, rooms with immobile desks are not adaptable and provide rigid accessible seating, if any is provided for, which is not conducive to full inclusion.

Door actuators. Third, placement and function of door actuators matter. Although I was unable to measure all of the door actuators on the UT campus due to time constraints, there are notable incidences where door actuators are placed too close to the doors, making it very difficult for students using wheelchairs to first press the button and then move out of the door's way in time. For example, the automatic door going into the bottom level of the Flawn Academic Center is placed very close to the door itself making it difficult for students to use. Additionally, door actuators should open both that the doors in the event of a building where there are two consecutive sets of doors to enter. For example, the main entrance of Patton Hall has an entryway where the exterior door actuator only opens the first door, forcing the student to awkwardly attempt to get to the second button in the space between the two doors. During passing periods, this can become functionally impossible with all of the students weaving in and out yet refusing to hold the door. Some buildings on UT already do this. For example, all of the accessible doors to the Student Services Building only require one button push for both doors. This needs to be standard across universities.

Communication and Connection with Campus Partners

When I first started this research a year ago, I confess I had a largely negative view of the campus partners responsible for providing accessibility to students with disabilities. I had heard of the ADA coordinator, but I had no idea the kinds of things that she does for the campus. Like many other students with disabilities, Parking and Transportation seemed to be my enemy, always taking away my accessible parking and making me pay extreme amounts of money for spots I could never find. However, throughout the last year, I have met so many caring people working in these offices behind the scenes, trying to make campus better for students like me.

In my opinion, it is important that students with disabilities get to know these people and what they are doing on behalf of students every day. I would advise the ADA coordinator's office to publish some kind of newsletter periodically that updates students on the current state of accessibility on the campus and what different campus partners are doing on students' behalf. Of course, many students are going to ignore the newsletter and not read it, but for those students who find themselves really frustrated, feeling like the University does not care about students with disabilities, the newsletter could make a world of difference.

Room Viewer for Registration

Not much can be done about the state of GPC's on campus in the immediate future and without significant cost. What I propose, then, is to allow students a way to see pictures of classrooms connected to the course schedule website. In this way, students would be able to see exactly the room that the class that they are considering registering for will be located in, and, if the room does not meet their needs, they would have plenty of time to try to request the room change before the semester starts and everything gets more difficult.

Campus Disability Tours

Campus tour guides need to be trained in the accessible pathways throughout campus as well as disability awareness training. Campus tour guides need to be sensitive to possible invisible disabilities where their attendees may need to take a few extra minutes before continuing with the tour. While I cannot be sure if there would be enough interest, I think campus tours specifically marketed to individuals with disabilities would create a welcoming atmosphere for high schoolers with disabilities to want to come tour the University.

Accessible Copying and Scanning

Finally, during the course of this research, one of the students I interviewed talked about how she is unable to use the University provided copying and scanning machines because the machines do not have screen readers to make the scenes accessible to those with visual disabilities. While I am not certain this is the case for all copiers and scanners on campus, it seems like a relatively simple update that would add to the quality of life of students with visual disability.

Conclusion

When I first set out on this exploration of university accessibility standards and the experiences of students with disabilities, I was not sure what I would find. I knew my experiences on campus, in classes, in campus housing, and in student organizations had often been riddled with negative experiences and discrimination. From professors who did not understand that testing in an alternative location did not comprise a makeup test, to language classes where not a single student would work with me without the professor forcing them to do so, to feeling like the University did not care about students with disabilities in the slightest, I was prepared to face campus partners who would refuse to talk to me, other students with disabilities who would spew only negativity (outside of my friend group, of course), and ultimately find a dismal picture of accessibility and perception of disability at UT.

Certainly, there was some of that. After all, my difficult experiences as a student with a disability on this campus are far from unique. However, the more relevant finding was of a campus that actively strives to be inclusive, if not always properly guided or successful. I found resilient, passionate students who advocate for themselves and others with disabilities through disability focused student organizations as well as projects external to the University. I met with campus partners who do care about students with disabilities and aim to do their best to provide for them. As students are forced to wait for disability legislation to catch up with the times—and there are efforts in Congress right now to do just that such as the Improving Access to Higher Education Bill sponsored by Representative Mark DeSauliner—it is up to us, the students, to advocate for full inclusion in higher education. I truly hope that the ideas and the recommendations within this thesis serve to further our cause.

Appendix A: Campus Measures of Full Inclusion Criteria Explained

Buildings

Building General Information (Columns A – F)

- This section includes the building name, abbreviation, date of construction, the size, the number of floors, and the building address.

Building Purpose (Column G)

- This is the primary purpose of the building, for example, if a specific department is housed there or if it is a residence hall, student center, etc.

GPC (Column H)

- 0: there are no general-purpose classrooms in this building
- 1: there are general-purpose classrooms in this building

Main Entrance Accessibility (Column I)

- 0: the main entrance to the building is not accessible
- 1: the main entrance to the building is accessible

Main Entrance Explanation (Column J)

- this section explains why a main entrance may not be accessible or, if there is not a single main entrance, it explains the situation

Entrances Total

- How many entrances does the building have?

Accessible Entrances Unpowered

- How many entrances are accessible, but not power entrances?

Accessible Entrances Powered

- How many entrances are accessible and powered by an automatic door opener?

Actuator Placement

- 0: the placement of the actuator is completely unusable
- 1: the placement of the actuator is in a difficult to reach location, but doable
- 2: the placement the actuator is ideal

Actuator Door Opening

- 0: only opens one door and the opening is not wide enough
- 1: only opens one set of doors and you must press a second button for the next set of doors

- 2: automatically opens first one set and then the second set of doors with one button push

Accessible Entrance Location

- 0: the back of the building and/or opens on a different floor than the main entrance
- 1: side of building and/or opens onto the same floor as the main entrance
- 2: front of the building/near the main entrance

Entrances Comments

- Other comments regarding the accessibility of the entrances

Elevators

- 0: the building does not have an elevator
- 1: the building does have an elevator, but it is very small/not ideal
- 2: the building has an elevator that is very accessible

Audible Elevator

- 0: the elevator does not make noises from floor to floor
- 1: the elevator does have audible noises from floor to floor
- 2: the elevator announces the floor numbers

Elevator Comments

- additional comments about the elevators that these two categories did not capture

Classrooms

Building Abbreviation & Room Number (Column A & B)

- These two columns contain the identifying building and room number of the classroom being considered.

Capacity (Column C)

- This column is the capacity of the room as listed by the registrar on its official general-purpose classroom listing page for 2019.

Classroom Type (Column D)

1. Lecture

Lecture classrooms can be classified as classrooms that are typically flat and filled with individual desks that all face the teaching area. Typical capacity is 25 to 250 students.

2. Auditorium

Auditorium classrooms are classrooms with a sloped floor with individual chairs often with armrest desks that face the teaching area. Typical capacity is 60 to 300 students.

3. Seminar

Seminar classrooms consist of a table or tables that are set in a solid square or a hollow square style. Typical capacity is 10 to 25.

4. Case Study

Case Study classrooms have a tiered floor (increasingly higher toward the back of the room) with either individual desks or tables with fixed chairs. Typical capacity is 50 to 75.

5. Other

Other classrooms are just classrooms that do not fall into the above categories. This typically would include computer classrooms for example.

Tiered, Sloped, Flat Classroom (Column E)

- 0: The floor of the classroom is tiered with steps (inaccessible)
- 1: The floor of this classroom is sloped but has no steps (accessible)
- 2: The floor of this classroom is completely flat (accessible)

Seating Mobility (Column F)

- 0: chairs, tables, and/or desks are not movable at all
- 1: chairs move but not tables/desk
- 2: chairs, tables, and desks are all movable

Accessible Seating (Column G)

- 0: There is no accessible seating within the classroom. Includes the absence of accessible tables.
- 1: The accessible seating in the classroom is very limited. There may only be accessible sitting in one area of the room or there may only be a couple accessible spots in a larger classroom.
- 2: There is multiple places where accessible seating if possible. Includes having a mobile accessible desk.

Room Description (Column H)

- This column has a brief description of the layout of the room.

Accessibility of the Front, Back, and the Board of the Classroom (Columns I-K)

- 0: This part of the classroom is completely inaccessible to those with mobility needs
- 1: This part of the classroom is only partly accessible
- 2: This part of the classroom is fully accessible

Accessible Freedom (Column L)

- 0: students with mobility limitations cannot move freely around the classroom

- 1: students with mobility limitations can go anywhere in the classroom

Accessible Table (Column M)

- 0: There is not an accessible table for a person in a wheelchair
- 1: There is an accessible table for a person in a wheelchair

Full Inclusion (Column N)

- 0: this classroom is not fully inclusive
- 1: this classroom is fully inclusive

Full Inclusion B (Column O)

Inadequacies

- This column consists of fixable things to make the room more fully inclusive. No, this does not include things like removing steps etc.

Door Openers

- 0: This classroom does not have automatic door openers
- 1: This classroom does have automatic door openers

Pathways of Travel

To measure pathways of travel, three pathways were selected on the UT campus based on real course schedules that UT students with disabilities traveled. An additional two pathways were selected that crossed campus from east to west and from north to south to exemplify the different pathways students with disabilities may be forced to take. Instructing a student without disabilities and a student with disabilities to travel from the starting location to the finishing location taking whatever route they would typically take, the time and geographic route traveled by each were recorded and compared against each other.

The three pathways based on previous course schedules:

1. Garrison Hall to T.S. Painter Hall to Waggener Hall
2. Waggener Hall to Mezes Hall to Patton Hall
3. Student Activity Center to Peter T. Flawn Academic Center to Burdine Hall

The two pathways that crossed campus:

4. Student Services Building to George I. Sanchez Building
5. Patton Hall to The Texas Union

Appendix B: Campus Accessibility and Student Experience Survey

The following is the list of questions used in the online student survey. The answer choices have been excluded.

1. How old are you?
2. To which gender do you most closely identify?
3. Which university are you currently attending?
4. What is your current academic classification?
5. What is your current major?
6. How many years have you been enrolled at your current University?
7. Which of the following categories best describes your disability or disabilities?
8. Do you use any of the following mobility aids while on campus?
9. How long have you identified as a person with a disability?

The following statements were answered on a seven-point scale ranging from strongly agree to strongly disagree.

1. My campus is disability friendly.
2. My campus is accessible.
3. The student body at my university is accepting of students with disabilities.
4. I feel like a valuable member of my campus community.
5. My campus is ideal for students with disabilities.

The following statements were answered on a seven-point scale ranging from strongly agree to strongly disagree.

1. I have had trouble finding accessible pathways to the classes.
2. The accessible routes that I must take to classes are different from the routes other students typically use.
3. My campus needs to do more for students with disabilities.

The following short answer question also appeared with the above statements.

1. In what ways do you find your campus accessible or inaccessible based upon your responses above?

The following statements were answered on a seven-point scale ranging from strongly agree to strongly disagree.

1. I am able to use the same bathrooms as all other students in campus buildings.
2. In my classrooms, I am able to sit anywhere in the room that I would like.
3. In my classrooms, I am always able to reach the front and the back of the classroom.

The following question was a multiple-choice question that appeared with the above statements.

1. Have you ever experienced buildings on your campus for which the only accessible entrance is in the back or side of the building?

The following statements were answered on a seven-point scale ranging from strongly agree to strongly disagree.

1. I feel isolated from the student body because of my disability
2. I have trouble making friends at my university because of my disability
3. I have trouble finding groups for projects or studying because of my disability
4. I do not feel welcome at my university because of my disability
5. My campus is not accessible enough for students like me

The following question appeared with the above statements.

1. Have you ever considered dropping out or transferring universities because of negative experiences as a student with a disability on your campus?

The following statements were answered on a seven-point scale ranging from strongly agree to strongly disagree.

1. I have experienced discrimination on campus because of my disability.
2. I have experienced discrimination my classes because of my disability.
3. I have experienced discrimination and student organizations because of my disability.
4. I have experienced discrimination among the student body because of my disability.

The following short answer question appeared with the above statements.

1. Please describe some of your negative experiences on campus, if any.

The survey ended with a series of short answer questions listed below.

1. If you could imagine the ideal university with regard to accessibility and inclusion of students with disabilities, what would it look like?
2. What advice would you give to your university on areas to work on or methods to implement in order to improve accessibility and acceptance of students with disabilities?
3. Do you have any further comments on your campus accessibility or your experiences as a student with a disability?
4. Would you recommend your university to a high school student with a disability similar to your own looking for a university to attend?

Appendix C: Full Results of the CMFI

Buildings

Table 3 shows a list of all the buildings in my sample as well as the entrance data that I collected. Because of size constraints, I am omitting the elevator information.

Table 4: CMFI Building Measurements Abbreviated

Building Name	Building Abbreviation	GPC	Main Entrance Accessibility	Explanation	Entrances Total	Accessible Entrances Unpowered	Accessible Entrances Powered	Percentage of accessible entrances
Benedict Hall	BEN	1	0	Stair	3	0	1	0.33
Burdine Hall	BUR	1	2	.	6	1	2	0.5
Calhoun Hall	CAL	1	0	Stair	5	0	2	0.4
Jesse H. Jones Communications Center	CMA	1	2	.	1	0	1	1
Peter T. Flawn Academic Center	FAC	1	2	.	9	6	2	0.77
Garrison Hall	GAR	1	2	.	4	0	2	0.5
Mezes Hall	MEZ	1	0	Stair	7	4	2	0.85
T. S. Painter Hall	PAI	1	0	Stair	6	0	1	0.16
Parlin Hall	PAR	1	0	Stair	6	0	1	0.16
Pharmacy Building	PHR	1	2	.	11	6	2	0.72
Robert Lee Moore Hall	RLM	1	2	.	4	3	1	1
Waggener Hall	WAG	1	1	.	5	0	1	0.2
Batts	BAT	0	0	Stair	4	0	2	0.5
Main Building	MAI	0	0	Stair	3	0	2	0.66
Rainey Hall	HRH	0	0	step	6	0	1	0.16
Harry Ransom Center	HRC	0	2	.	1	0	1	1
Texas Union	UNB	0	2	.	7	2	2	0.57
Belo Center for New Media	BMC	0	2	.	3	2	1	1
Student Services Building	SSB	0	2	.	4	0	4	1

Classrooms

Table 4 lists all the GPC's that I measured for this study. Again, I had to selectively choose which information to include because of size constraints and the titles are not pretty, but the information is here. See Appendix A for explanation of the criteria.

Table 5: CMFI Classroom Measurements Abbreviated

Buil ding	Ro om Num ber	Classroom Type	Tier Slope Flat	Seating Mobilit y	Accessi ble Seating	Class Front	Class Back	Board Accessi bility	Full Inclusi on
ART	1.102	Auditorium	1	0	2	2	2	2	0
BEN	1.102	Lecture	2	2	2	2	2	2	1
BEN	1.104	Lecture	2	2	2	2	2	2	1
BEN	1.106	Lecture	2	2	2	2	2	2	1
BEN	1.108	Lecture	2	2	2	2	2	2	1
BEN	1.118	Seminar	2	1	1	1	1	1	0
BEN	1.122	Lecture	2	2	2	2	2	2	1
BEN	1.124	Lecture	2	2	2	2	2	2	1
BEN	1.126	Lecture	2	2	2	2	2	2	1
BIO	301	Lecture	2	2	2	2	2	2	1
BUR	106	Auditorium	0	0	1	2	0	2	0
BUR	108	Case Study	0	0	1	0	1	0	0
BUR	112	Case Study	0	0	1	0	1	0	0
BUR	116	Case Study	0	0	1	0	1	0	0
BUR	128	Seminar	2	1	1	1	1	1	1
BUR	130	Case Study	0	0	0	0	1	0	0
BUR	134	Case Study	0	0	0	0	1	0	0
BUR	136	Case Study	0	0	0	0	1	0	0
BUR	208	Case Study	0	0	0	0	1	0	0
BUR	212	Case Study	0	0	0	0	1	0	0
BUR	216	Case Study	0	0	1	0	1	0	0
BUR	220	Case Study	0	0	1	0	1	0	0
BUR	224	Case Study	0	0	0	0	1	0	0
BUR	228	Seminar	2	1	2	1	1	1	1
CAL	21	Seminar	2	2	2	2	2	2	1
CAL	22	Seminar	2	2	2	2	2	2	1
CAL	100	Auditorium	1	0	1	1	1	0	0
CAL	200	Seminar	2	2	2	2	2	2	1
CAL	221	Seminar	2	2	2	2	2	2	1
CAL	323	Seminar	2	2	2	2	2	2	1
CAL	419	Seminar	2	2	2	2	2	2	1

CBA	4.324	Lecture	2	2	2	2	2	2	1
CBA	4.326	Lecture	2	2	2	2	2	2	1
CBA	4.328	Case Study	0	0	1	2	0	2	0
CBA	4.330	Lecture	2	2	2	2	2	2	1
CBA	4.332	Lecture	2	2	2	2	2	2	1
CBA	4.336	Seminar	2	2	2	2	2	2	1
CBA	4.338	Seminar	2	2	2	2	2	2	1
CBA	4.340	Seminar	2	2	2	2	2	2	1
CBA	4.342	Seminar	2	2	2	2	2	2	1
CBA	4.344	Lecture	2	2	2	2	2	2	1
CBA	4.346	Seminar	2	2	2	2	2	2	1
CBA	4.348	Lecture	2	2	2	2	2	2	1
CMA	3.108	Seminar	2	1	2	2	2	2	1
CMA	3.114	Lecture	2	2	0	2	2	2	0
CMA	3.134	Seminar	2	1	2	2	2	2	1
CMA	5.190	Lecture	2	2	0	2	2	2	0
CPE	2.204	Case Study	0	0	1	2	0	2	0
CPE	2.206	Case Study	0	0	1	2	0	2	0
CPE	2.208	Auditorium	0	0	1	2	0	2	0
CPE	2.210	Case Study	0	0	1	2	0	2	0
CPE	2.212	Case Study	0	0	0	2	0	2	0
CPE	2.214	Auditorium	0	0	1	2	0	2	0
CPE	2.216	Case Study	0	0	0	2	0	2	0
CPE	2.218	Case Study	0	0	0	2	0	2	0
CPE	2.220	Case Study	0	0	0	2	0	2	0
ECJ	1.202	Case Study	0	0	1	2	0	2	0
ECJ	1.204	Case Study	0	0	1	2	0	2	0
ETC	2.102	Lecture	2	2	2	2	2	2	1
ETC	2.108	Auditorium	0	0	1	2	0	2	0
ETC	2.114	Case Study	0	0	1	2	0	2	0
ETC	2.132	Case Study	0	0	1	2	0	2	0
ETC	2.136	Case Study	0	0	1	2	0	2	0
GAR	0.102	Auditorium	0	0	1	2	0	2	0
GAR	0.120	Lecture	2	2	2	2	2	2	1
GAR	0.128	Lecture	2	2	2	2	2	2	1
GAR	0.132	Lecture	2	2	2	2	2	2	1
GAR	1.126	Lecture	2	2	2	2	2	2	1
GAR	1.134	Seminar	2	2	2	2	2	2	1
GAR	2.112	Lecture	2	2	2	2	2	2	1
GAR	2.124	Seminar	2	2	2	2	2	2	1
GAR	2.128	Lecture	2	2	2	2	2	2	1
GAR	3.116	Lecture	2	2	2	2	2	2	1
GDC	1.304	Case Study	1	1	2	2	2	2	1
GDC	2.210	Lecture	2	2	2	2	2	2	1

GDC	2.402	Lecture	2	2	1	1	2	1	0
GDC	2.410	Lecture	2	2	0	2	2	2	0
GDC	2.502	Lecture	2	2	2	2	2	2	1
GDC	4.302	Lecture	2	2	2	2	2	2	1
GDC	4.304	Lecture	2	2	2	2	2	2	1
GDC	5.304	Lecture	2	2	2	2	2	2	1
GDC	6.202	Lecture	2	2	2	2	2	2	1
GSB	2.122	Case Study	0	0	1	0	2	0	0
GSB	2.124	Auditorium	0	0	1	0	1	0	0
GSB	2.126	Case Study	0	0	1	0	2	0	0
JES	A203 A	Lecture	2	2	2	2	2	2	1
JES	A205 A	Lecture	2	2	0	2	2	2	0
JES	A207 A	Lecture	2	2	2	2	2	2	1
JES	A209 A	Lecture	2	2	0	2	2	2	0
JES	A215 A	Lecture	2	2	2	2	2	2	1
JES	A216 A	Lecture	2	2	.	2	2	2	1
JES	A217 A	Lecture	2	2	.	2	2	2	1
JES	A218 A	Lecture	2	2	2	2	2	2	1
JES	A303 A	Lecture	2	2	.	2	2	2	1
JES	A305 A	Lecture	2	2		2	2	2	1
JES	A307 A	Lecture	2	2	.	2	2	2	1
JGB	2.218	Auditorium	0	0	1	2	2	2	0
MEZ	B0.3 02	Lecture	2	2	0	2	2	2	0
MEZ	B0.3 06	Auditorium	1	0	1	2	1	2	0
MEZ	1.102	Lecture	2	2	2	2	2	2	1
MEZ	1.104	Seminar	2	1	2	2	2	2	1
MEZ	1.118	Lecture	2	2	2	2	2	2	1
MEZ	1.120	Lecture	2	2	2	2	2	2	1
MEZ	1.122	Lecture	2	2	2	2	2	2	1
MEZ	1.202	Lecture	2	2	2	2	2	2	1
MEZ	1.204	Lecture	2	2	2	2	2	2	1
MEZ	1.206	Lecture	2	2	2	2	2	2	1
MEZ	1.208	Lecture	2	2	2	2	2	2	1
MEZ	1.210	Lecture	2	2	2	2	2	2	1

MEZ	1.212	Lecture	2	2	2	2	2	2	1
MEZ	1.216	Lecture	2	2	2	2	2	2	1
MEZ	1.306	Auditorium	1	0	1	2	1	2	0
MEZ	2.102	Lecture	2	2	2	2	2	2	1
MEZ	2.118	Lecture	2	2	2	2	2	2	1
MEZ	2.122	Lecture	2	2	2	2	2	2	1
MEZ	2.124	Lecture	2	2	2	2	2	2	1
PAR	101	Lecture	2	2	0	2	2	2	0
PAR	103	Lecture	2	2	0	2	2	2	0
PAR	105	Lecture	2	2	0	2	2	2	0
PAR	201	Case Study	0	0	1	2	0	2	0
PAR	203	Case Study	0	0	1	2	0	2	0
PAR	204	Lecture	2	2	0	2	2	2	0
PAR	206	Lecture	2	2	0	2	2	2	0
PAR	208	Lecture	2	2	1	2	2	2	1
PAR	210	Seminar	2	1	2	2	2	2	1
PAR	214	Seminar	2	1	1	1	1	1	0
PAR	301	Case Study	0	0	1	2	0	2	0
PAR	302	Seminar	2	2	2	2	2	2	1
PAR	303	Lecture	2	2	0	2	2	2	0
PAR	304	Lecture	2	2	0	2	2	2	0
PAR	305	Seminar	2	2	2	2	2	2	1
PAR	306	Lecture	2	2	0	2	2	2	0
PAR	308	Lecture	2	2	0	2	2	2	0
PAR	310	Seminar	2	2	2	2	2	2	1
PHR	2.108	Case Study	1	0	1	2	1	0	0
PHR	2.110	Case Study	1	0	2	2	2	2	0
PHR	2.114	Case Study	1	0	1	1	2	0	0
PHR	2.116	Other	1	1	1	1	2	0	0
RLM	4.102	Auditorium	0	0	0	1	0	1	0
RLM	5.104	Other	2	0	0	0	1	0	0
RLM	5.112	Lecture	2	2	2	2	2	2	1
RLM	5.114	Lecture	2	0	1	2	1	2	0
RLM	5.116	Lecture	2	0	1	2	1	2	0
RLM	5.118	Lecture	2	0	1	2	1	2	0
RLM	5.120	Lecture	2	0	1	2	1	2	0
RLM	5.122	Lecture	2	0	1	2	1	2	0
RLM	5.124	Lecture	2	0	1	2	1	2	0
RLM	5.126	Lecture	2	0	1	2	1	2	0
RLM	6.104	Other	2	0	0	0	1	0	0
RLM	6.112	Other	2	2	2	2	2	2	1
RLM	7.104	Other	2	0	0	0	1	0	0
RLM	7.112	Lecture	2	2	1	1	1	1	0
RLM	7.114	Other	2	2	0	1	1	1	0

RLM	7.116	Other	2	2	0	1	1	1	0
RLM	7.124	Lecture	2	0	1	2	1	2	0
RLP	0.102	Auditorium	1	0	1	2	1	2	0
RLP	0.104	Lecture	2	2	2	2	2	2	1
RLP	0.106	Lecture	2	2	2	2	2	2	1
RLP	0.108	Seminar	2	1	2	1	1	1	1
RLP	0.112	Auditorium	1	0	1	2	1	2	0
RLP	0.118	Lecture	2	2	2	2	2	2	1
RLP	0.120	Seminar	2	1	2	1	1	1	1
RLP	0.122	Seminar	2	1	2	1	1	1	1
RLP	0.124	Seminar	2	1	2	1	1	1	1
RLP	0.126	Auditorium	1	0	1	2	1	2	0
RLP	0.128	Auditorium	1	0	1	2	1	2	0
RLP	0.130	Auditorium	1	0	1	2	1	2	0
RLP	1.102	Lecture	2	2	2	2	2	2	1
RLP	1.104	Case Study	0	0	1	1	0	1	0
RLP	1.106	Case Study	0	0	1	1	0	1	0
RLP	1.108	Lecture	2	2	2	2	2	2	1
SZB	104	Case Study	0	1	1	0	2	0	0
SZB	240	Lecture	2	2	2	2	2	2	1
SZB	278	Lecture	2	2	2	2	2	2	1
SZB	284	Lecture	2	2	2	2	2	2	1
SZB	286	Lecture	2	2	2	2	2	2	1
SZB	296	Lecture	2	2	2	2	2	2	1
SZB	330	Lecture	2	2	2	2	2	2	1
SZB	370	Lecture	2	2	2	2	2	2	1
SZB	380	Lecture	2	2	2	2	2	2	1
SZB	416	Lecture	2	2	2	2	2	2	1
SZB	422	Lecture	2	2	2	2	2	2	1
SZB	426	Lecture	2	2	2	2	2	2	1
SZB	434	Seminar	2	2	2	2	2	2	1
SZB	524	Lecture	2	2	2	2	2	2	1
SZB	526	Lecture	2	2	2	2	2	2	1
UTC	1.102	Case Study	0	0	1	2	0	2	0
UTC	1.104	Case Study	0	0	1	2	0	2	0
UTC	1.116	Case Study	0	0	1	2	0	2	0
UTC	1.118	Case Study	0	0	1	2	0	2	0
UTC	1.130	Case Study	0	0	1	2	0	2	0
UTC	1.132	Case Study	0	0	1	2	0	2	0
UTC	1.136	Seminar	2	2	2	2	2	2	1
UTC	1.142	Seminar	2	2	2	2	2	2	1
UTC	1.144	Case Study	0	0	1	2	0	2	0
UTC	1.146	Case Study	0	0	1	2	0	2	0
UTC	2.102 A	Case Study	0	0	1	0	2	0	0

UTC	2.112 A	Auditorium	0	0	1	0	2	0	0
UTC	3.102	Case Study	0	0	1	2	0	2	0
UTC	3.104	Case Study	0	0	1	2	0	2	0
UTC	3.110	Case Study	0	0	1	2	0	2	0
UTC	3.112	Case Study	0	0	1	2	0	2	0
UTC	3.120	Seminar	2	2	2	2	2	2	1
UTC	3.122	Case Study	0	0	1	2	0	2	0
UTC	3.124	Case Study	0	0	1	2	0	2	0
UTC	3.132	Case Study	0	0	1	2	0	2	0
UTC	4.102	Case Study	0	0	1	2	0	2	0
UTC	4.104	Case Study	0	0	1	2	0	2	0
UTC	4.110	Case Study	0	0	1	2	0	2	0
UTC	4.112	Case Study	0	0	1	2	0	2	0
UTC	4.114	Seminar	2	2	2	2	2	2	1
UTC	4.120	Lecture	2	2	1	2	0	2	0
UTC	4.122	Case Study	0	0	1	2	0	2	0
UTC	4.124	Case Study	0	0	1	2	0	2	0
UTC	4.132	Case Study	0	0	1	2	0	2	0
UTC	4.134	Case Study	0	0	1	2	0	2	0
WA G	101	Lecture	2	0	1	0	0	0	0
WA G	112	Seminar	2	2	1	1	2	2	1
WA G	201	Lecture	2	0	1	2	0	2	0
WA G	208	Lecture	2	2	2	2	2	2	1
WA G	214	Lecture	2	0	1	1	0	1	0
WA G	308	Lecture	2	2	2	2	2	2	1
WA G	420	Lecture	2	0	1	1	0	0	0
WC H	1.120	Auditorium	0	0	1	0	2	0	0
WEL	2.122	Auditorium	0	0	1	0	0	0	0

Pathways of Travel

The following images are the other three routes traveled. As a reminder, the blue lines represent the accessible routes whereas the red and pink lines are the routes traveled by the nondisabled students. There are two colors for each student to show the repetitive nature of accessible routes. For example, in Figure 4, the dark red line maps the travel from Wagener Hall to Mezes Hall while the pink line represents the route from Mezes to RLP. Similarly, the dark blue line is the first half of the route and the light blue line is the second half.

Route 2

Figure 4: CMFI Pathways of Travel Route 2 WAG to MEZ to RLP



Route 3. Because this route covered such a wide area of campus, the map had to be split into two images. Figure 5 shows the first half of the route while Figure 6 depicts the second half.

Figure 5: CMFI Pathways of Travel Route 3.1 SAC to FAC to BUR

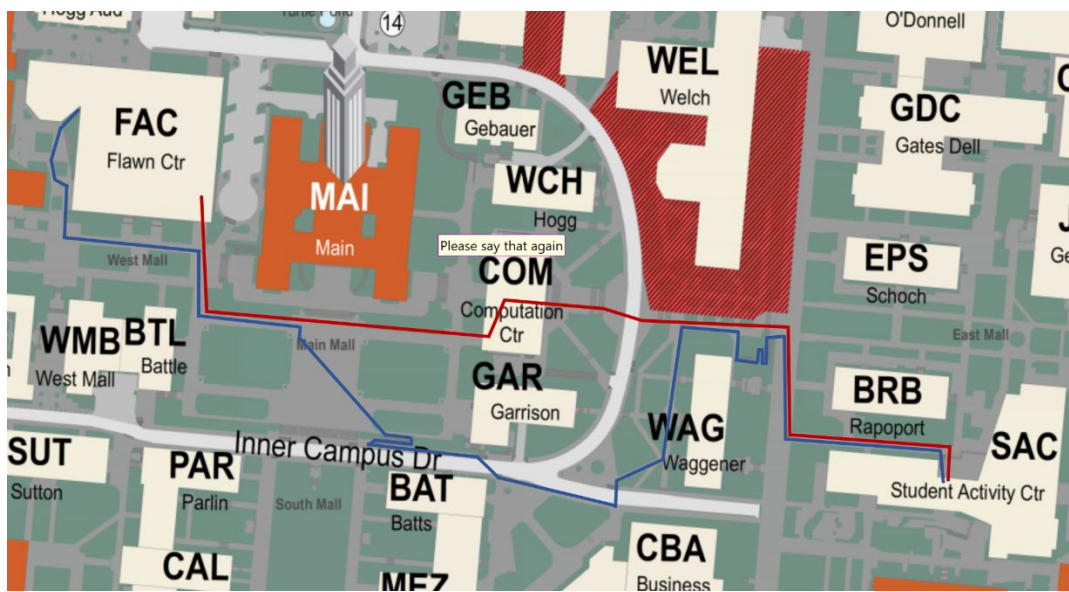
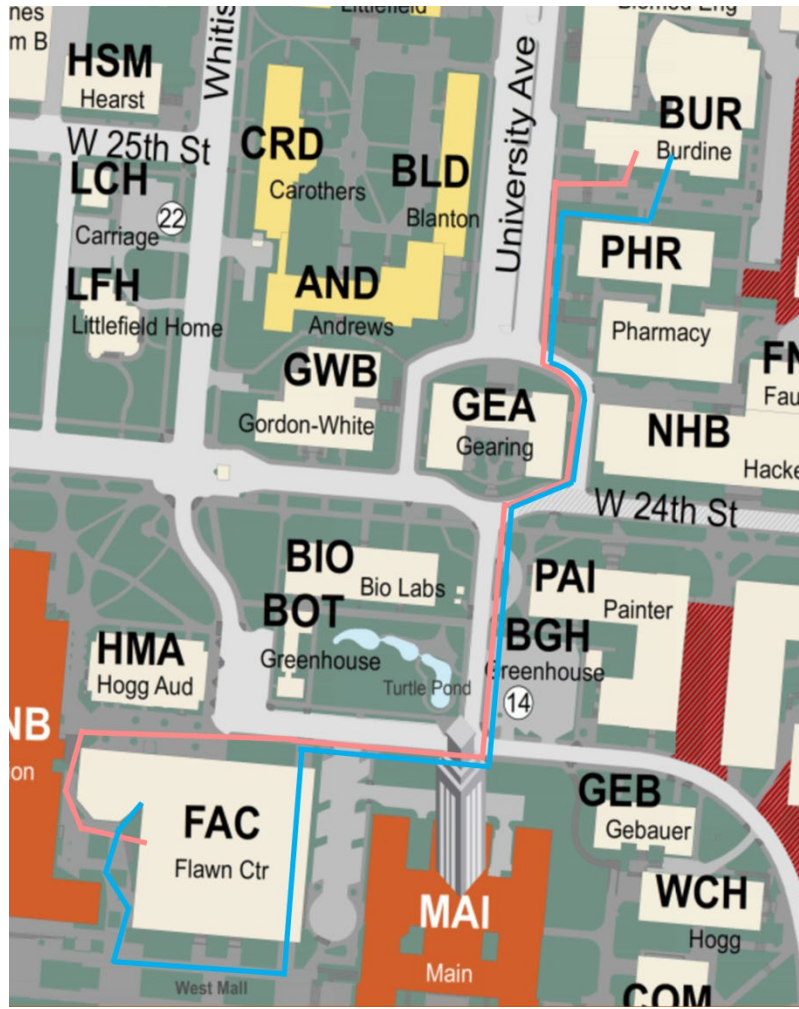


Figure 6: CMFI Pathways of Travel Route 3.2 SAC to FAC to BUR



Route 5

Figure 7: CMFI Pathways of Travel Route 5 RLP to UNB



References

- Americans with Disabilities Act of 1990, Pub. L. No. 101-336, § 2, 104 Stat. 328 (1991).
- Americans With Disabilities Act Amendments, 42 U.S.C. § 12101 *et seq.* (2008).
- Bickenbach, J. (1996). Equality, participation, and the politics of disability. Paper presented at the Equal through Participation 2000 and Beyond 18th World Congress of Rehabilitation International Conference, Auckland, September 1996.
- Bird, C. (2018). *Accommodating Disability: Barriers and Burdens of a Movement Toward Equity in an Equality-Based Justice System*. The University of Texas at Austin, Austin.
- Bowman, L. (2011). Americans with disabilities act as amended: Principles and practice. *New Directions for Adult & Continuing Education*, 2011(132), 85–95.
- Brand, B., Valent, A., & Danielson, L. (2013). *Improving College and Career Readiness for Students with Disabilities* (p. 33). Retrieved from American Institutes for Research website: <https://ccrcenter.org/products-resources/improving-college-and-career-readiness-students-disabilities>
- Brown v. Board of Education, 347 U.S. 483 (1954).
- Burns, J. K. (2009). Mental Health and Inequity: A Human Rights Approach to Inequality, Discrimination, And Mental Disability. *Health & Human Rights: An International Journal*, 11(2), 19–31.
- CAST (2018). *Universal design for learning guidelines version 2.2*. http://udlguidelines.cast.org/binaries/content/assets/udlguidelines/udlg-v2-2/udlg_graphicorganizer_v2-2_numbers-yes.pdf

- Claiborne, L., S. Cornforth, A. Gibson, and A. Smith. (2011). Supporting Students with Impairments in Higher Education: Social Inclusion or Cold Comfort? *International Journal of Inclusive Education* 15(5), 513–527.
- Cory, R. C. (2011). Disability services offices for students with disabilities: A campus resource. *New Directions for Higher Education*, 2011(154), 27–36. [https://doi-org.ezproxy.lib.utexas.edu/10.1002/he.431](https://doi.org.ezproxy.lib.utexas.edu/10.1002/he.431)
- Daum, C. W., & Ishiwata, E. (2010). From the Myth of Formal Equality to the Politics of Social Justice: Race and the Legal Attack on Native Entitlements Daum & Ishiwata From the Myth of Formal Equality to the Politics of Social Justice. *Law & Society Review*, 44(3/4), 843–876.
- DeBonis, M. (2018, February 15). House passes changes to Americans with Disabilities Act over activists' objections. *The Washington Post*.
- Fuller, M., Healey, M., Bradley, A., & Hall, T. (2004). Barriers to learning: a systematic study of the experience of disabled students in one university. *Studies in Higher Education*, 29(3), 303–318. <https://doi.org/10.1080/03075070410001682592>
- Gartner, A. (2001). What to Do with Difference: The ADA, Special Education, and Disability. *Ohio State Law Journal*, 62, 555–567.
- Goodman, K., and E. Pascarella. (2006). First-Year Seminars Increase Persistence and Retention: A Summary of the Evidence from How College Affects Students. *Peer Review* 8(3): 26–28.
- Hadjikakou, K., & Hartas, D. (2008). Higher education provision for students with disabilities in Cyprus. *Higher Education*, 55(1), 103–119. <https://doi.org/10.1007/s10734-007-9070-8>

- Healey, M., Roberts, C., Jenkins, A., & Leach, J. (2001). *Issues in providing learning support for disabled students undertaking fieldwork and related activities*. Geography Discipline Network, University of Gloucestershire.
- Hong, B. S. S. (2015). Qualitative Analysis of the Barriers College Students with Disabilities Experience in Higher Education. *Journal of College Student Development* 56(3), 209-226. Johns Hopkins University Press. Retrieved May 7, 2019, from Project MUSE database.
- Hopkins, L. (2011). The path of least resistance: a voice-relational analysis of disabled students' experiences of discrimination in English universities. *International Journal of Inclusive Education*, 15(7), 711–727. <https://doi.org/10.1080/13603110903317684>
- Huger, M. S. (2011). Fostering a disability-friendly institutional climate. *New Directions for Student Services*, 2011(134), 3–11. <https://doi-org.ezproxy.lib.utexas.edu/10.1002/ss.390>
- Hurst, A. (1996). Reflecting on Researching Disability and Higher Education. In L. Barton (Ed.), *Disability and Society: emerging issues and insights* (pp. 123–147). London: Longman.
- Improving Access to Higher Education Act of 2017, H.R. 3199, 115th Cong. (2017).
- Kantor, A. S. (2015.). - A Comparative View of Equality under the UN Convention on the Rights of Persons with Disabilities and the Disability Laws of the United States and Canada Special Section: Exploring Law, Disability and the Challenge of Equality in Canada and the United States. - *Windsor Yearbook of Access to Justice*, 65.

- Kayess, R., & French, P. (2008). Out of Darkness into Light? Introducing the Convention on the Rights of Persons with Disabilities. *Human Rights Law Review*, 8(1), 1–34.
<https://doi.org/10.1093/hrlr/ngm044>
- Kitchin, Rob. (2001). Investigating Disability and Inclusive Landscapes. *Teaching Geography*, 26(2), 81–85.
- Leonard, R., D’Allura, T., & Horowitz, A. (1999). Factors associated with employment among persons who have a vision impairment: A follow-up of vocational placement referrals. *Journal of Vocational Rehabilitation*, 12, 33–43.
- Leyser, Y., L. Greenberger, V. Sharoni, and G. Vogel. (2011). Students with Disabilities in Teacher Education: Changes in Faculty Attitudes toward Accommodations over Ten Years. *International Journal of Special Education* 26(1), 162–174.
- Leyser, Y., Vogel, S., Wyland, S., Brulle, A., Sharoni, V., & Vogel, G. (2000). Students with disabilities in higher education: perspectives of American and Israeli faculty members. *International Education*, 29, 47–67.
- Lombardi, A., Vukovic, B., & Sala-Bars, I. (2015). International Comparisons of Inclusive Instruction Among College Faculty in Spain, Canada, and the United States. *Journal of Postsecondary Education & Disability*, 28(4), 447–460.
- Lombardi, A. R., & Murray, C. (2011). Measuring university faculty attitudes toward disability: Willingness to accommodate and adopt Universal Design principles. *Journal of Vocational Rehabilitation*, 34(1), 43–56. Retrieved from a9h.

- Lombardi, A., Murray, C., & Kowitt, J. (2016). Social support and academic success for college students with disabilities: Do relationship types matter? *Journal of Vocational Rehabilitation, 44*(1), 1–13. Retrieved from a9h.
- López Gavira, R., & Moriña, A. (2015). Hidden voices in higher education: inclusive policies and practices in social science and law classrooms. *International Journal of Inclusive Education, 19*(4), 365–378. <https://doi.org/10.1080/13603116.2014.935812>
- Lourens, H., & Swartz, L. (2016). ‘It’s better if someone can see me for who I am’: stories of (in)visibility for students with a visual impairment within South African Universities. *Disability & Society, 31*(2), 210–222. <https://doi.org/10.1080/09687599.2016.1152950>
- Madaus, J. & Shaw, S. (2004). Section 504: Differences in the regulations for secondary and postsecondary education. *Intervention in School and Clinic, 40*(2), 81–87.
- Madriaga, M., Hanson, K., Heaton, C., Kay, H., Newitt, S., & Walker, A. (2010). Confronting similar challenges? Disabled and non-disabled students’ learning and assessment experiences. *Studies in Higher Education, 35*(6), 647–658. Retrieved from a9h.
- Martin, E. W., Martin, R., & Terman, D. L. (1996). The Legislative and Litigation History of Special Education. *The Future of Children, 6*(1), 25–39. <https://doi.org/10.2307/1602492>
- Mayerson, A. (1991). The americans with disabilities act an historic overview. *Labor Lawyer 7*(1), 1-10.
- Mayerson, A. B.; Yee, S. (2001). The ada and models of equality. *Ohio State Law Journal 62*(1), 535-554.

- Mayerson, A. (2007). Disability rights law: Roots, present challenges, and future collaboration. *Clearinghouse Review* 41(3), 265-271.
- Mills v. Board of Education of District of Columbia, 348 F. Supp. 866, (1972).
- Moriña, A. (2017). Inclusive education in higher education: challenges and opportunities. *European Journal of Special Needs Education*, 32(1), 3–17. <https://doi-org.ezproxy.lib.utexas.edu/10.1080/08856257.2016.1254964>
- Moriña, A. (2017). ‘We aren’t heroes, we’re survivors’: higher education as an opportunity for students with disabilities to reinvent an identity. *Journal of Further and Higher Education*, 41(2), 215–226. <https://doi.org/10.1080/0309877X.2015.1070402>
- Moriña, A., López-Gavira, R., & Molina, V. M. (2017). What if we could Imagine an Ideal University? Narratives by Students with Disabilities. *International Journal of Disability, Development & Education*, 64(4), 353–367. Retrieved from a9h.
- Moriña, A., & Morgado, B. (2018). University surroundings and infrastructures that are accessible and inclusive for all: listening to students with disabilities. *Journal of Further & Higher Education*, 42(1), 13–23, DOI: [10.1080/0309877X.2016.1188900](https://doi.org/10.1080/0309877X.2016.1188900)
- Mullins, L., and M. Preyde. (2013). The Lived Experience of Students with an Invisible Disability at a Canadian University. *Disability and Society* 28(2): 147–160.
- Newman, L., Wagner, M., Cameto, R., Knokey, A.-M., & Shaver, D. (2010). *Comparisons Across Time of the Outcomes of Youth With Disabilities up to 4 Years After High School. A Report of Findings From the National Longitudinal Transition Study (NLTS) and the National Longitudinal Transition Study-2 (NLTS2)* (p. 163). Retrieved from National

Center for Special Education Research website:

<https://ies.ed.gov/ncser/pubs/20103008/pdf/20103008.pdf>

Pennsylvania Association for Retarded Children v. Pennsylvania, 343 F. Supp 279, (1971).

Prowse, S. (2009). Institutional construction of disabled students. *Journal of Higher Education Policy and Management*, 31(1), 89–96. <https://doi.org/10.1080/13600800802559302>

Quinn, J. (2013). Drop-out and Completion in Higher Education in Europe Among Students from Under-Represented Groups. *European Commission by the Network of Experts on Social Aspects of Education and Training NESET*, European Union.

Redpath, J., Kearney, P., Nicholl, P., Mulvenna, M., Wallace, J., & Martin, S. (2013). A qualitative study of the lived experiences of disabled post-transition students in higher education institutions in Northern Ireland. *Studies in Higher Education*, 38(9), 1334–1350. Retrieved from a9h.

Riddell, S., & Weedon, E. (2014). Disabled students in higher education: Discourses of disability and the negotiation of identity. *Special Issues: Representing Diversity in Education: Student Identities in Contexts of Learning and Instruction & Classroom-Based Talk*, 63, 38–46. <https://doi.org/10.1016/j.ijer.2013.02.008>

Riddell, S., Wilson, A., & Tinklin, T. (2002). Disability and the wider access agenda: supporting disabled students in different institutional contexts. *Widening Participation and Lifelong Learning*, 4(3), 12–26.

Rosario López Gavira & Anabel Moraña (2015) Hidden voices in higher education: inclusive policies and practices in social science and law classrooms, *International Journal of Inclusive Education*, 19:4, 365-378, DOI: [10.1080/13603116.2014.935812](https://doi.org/10.1080/13603116.2014.935812)

Rozalski, M., Katsiyannis, A., Ryan, J., Collins, T., & Stewart, A. (2010). Americans With Disabilities Act Amendments of 2008. *Journal of Disability Policy Studies*, 21(1), 22–28.

Ryan, C. L., & Bauman, K. (2016). *Educational Attainment in the United States: 2015*. Retrieved from United States Census Bureau website:

<https://www.census.gov/content/dam/Census/library/publications/2016/demo/p20-578.pdf>

Ryan, J., & Struhs, J. (2004). University education for all? Barriers to full inclusion of students with disabilities in Australian universities. *International Journal of Inclusive Education*, 8(1), 73–90.

Sargent, B. (1999, August 29). ADA and TAS confusion: A failure to communicate. *Houston Business Journal*. Retrieved from

<https://www.bizjournals.com/houston/stories/1999/08/30/focus2.html>

Schreuer, N., & Sachs, D. (2014). Efficacy of accommodations for students with disabilities in higher education. *Journal of Vocational Rehabilitation*, 40(1), 27–40. Retrieved from a9h.

Seale, J., Georgeson, J., Mamas, C., & Swain, J. (2015). Not the right kind of ‘digital capital’?

An examination of the complex relationship between disabled students, their technologies and higher education institutions. *Computers & Education*, 82, 118–128.

<https://doi.org/10.1016/j.compedu.2014.11.007>

- (SSD) Services for Students with Disabilities. (2018). *SSD Data*. Retrieved from <https://diversity.utexas.edu/disability/ssd-statistics/>
- Simon, J. (2000). Legal Issues in Serving Students with Disabilities in Postsecondary Education. In *Serving Students with Disabilities*, edited by H. A. Belch. New Directions for Student Services, no. 91. San Francisco: Jossey-Bass.
- Standl, P. (2017). Substantive Equality and Procedural Justice. *Iowa Law Review*, 102(4), 1633–1689.
- Switzer, J. (2003). *Disabled Rights: American Disability Policy and the Fight for Equality*. Washington DC: Georgetown University Press.
- Taylor, A. (2017). When Fact Conceals Privilege: Teaching the (Shared?) Reality of Disability. *Educational Theory*, 67(2), 131–151.
- Thomas, L., & Heath, J. (2014). Institutional wide implementation of key advice for socially inclusive teaching in higher education. A practice report. *The International Journal of the First Year in Higher Education*, 5(1), 125-133.
- Tinto, V. (2008). Access without support is not opportunity. *Inside Higher Education*. <https://www.insidehighered.com/views/2008/06/09/access-without-support-not-opportunity>
- Tucker, B. (2001). The ada's revolving door: Inherent flaws in the civil rights paradigm. *Ohio State Law Journal* 62(1), 335-390.
- Tucker, B. (2000). The supreme court's definition of disability under the ada: return to the dark ages. *Alabama Law Review* 52(1), 321-374.

- Tuomi, M. T., Lehtomäki, E., & Matonya, M. (2015). As Capable as Other Students: Tanzanian Women with Disabilities in Higher Education. *International Journal of Disability, Development & Education*, 62(2), 202–214. Retrieved from a9h.
- (UN) United Nations. (2006). *Convention on the Rights of Persons with Disabilities and Optional Protocol*: UN, Paris.
<http://www.un.org/disabilities/convention/conventionfull.shtml>
- U.S. Department of Education, National Center for Education Statistics. (2018). *Digest of Education Statistics, 2016* (NCES 2017-094), [Chapter 3](#).
- U.S. Department of Education, Office of Special Education and Rehabilitative Services. (2010). *Thirty-five Years of Progress in Educating Children with Disabilities Through IDEA*, Washington, D.C.
- van Jaarsveldt, D. E., & Ndeya-Ndereya, C. N. (2015). ‘It’s not my problem’: exploring lecturers’ distancing behaviour towards students with disabilities. *Disability & Society*, 30(2), 199–212.
- White, J., & Weiner, J. S. (2004). Influence of least restrictive environment and community based training on integrated employment outcomes for transitioning students with severe disabilities. *Journal of Vocational Rehabilitation*, 21, 149–156.
- Wolanin, T. R., and P. E. Steele. (2004). *Higher Education Opportunities for Students with Disabilities: A Primer for Policymakers*. Washington, DC: Institute for Higher Education Policy.

Zhang, D., Landmark, L., Reber, A., HsienYuan Hsu, Kwok, O., & Benz, M. (2010). University Faculty Knowledge, Beliefs, and Practices in Providing Reasonable Accommodations Students with Disabilities. *Remedial and Special Education*, 31(4), 276–286.

<https://doi.org/10.1177/0741932509338348>

Biography

Kate Strickland was born in Houston, Texas on October 12, 1994. She enrolled in the Plan II Honors Program at the University of Texas at Austin in the fall of 2013. Six weeks into her freshman year, Kate was hit by a car while riding her bicycle, sustaining a high-level spinal cord injury that left most of her body paralyzed. Returning to UT a year later, Kate finished her Plan II and Government degree programs in 2019. A strong advocate of disability rights, Kate served as the President of the Disability Advocacy Student Coalition and a Co-director of the Disabilities and Inclusion Agency of Student Government during her time at UT. Additionally, Kate worked as a student research intern at the Edward A Clark Center for Australian and New Zealand Studies, conducted independent research into the High Court of Australia as a Clark Scholar, and will continue to work for the Clark Center after graduation while she applies to law schools. Kate plans to pursue a law degree with the intention of specializing in disability rights law.