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# Mapping Out Student Support: An Exploration of Student Disability Programs and Practices at Selective Higher Education Institutions

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# MAPPING OUT STUDENT SUPPORT: AN EXPLORATION OF STUDENT DISABILITY PROGRAMS AND PRACTICES AT SELECTIVE HIGHER EDUCATION INSTITUTIONS

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## ABSTRACT

There are currently over 200,000 students with disabilities enrolled in post-secondary institutions. This reality places demands on higher education institutions and requires considerations related to service delivery and policy (US Government Accountability, 2009). In response to the growing number of matriculating students with disabilities, higher education institutions are incorporating service centers to provide additional academic and non-academic supports to address the unique needs for these students.

There is a gap in existing higher education literature in mapping the existing landscape of programs and service delivery models at the higher education level and what is effective so institutions can serve students with disabilities well. Other than the legal protections of the Americans with Disabilities Act and Section 504, there is little understanding about how higher education institutions are responding to the diversifying student needs.

The purpose of this study is to respond to these knowledge gaps by examining the existing programmatic landscape and develop a typology of programs and services in place to serve students with disabilities at selective and highly selective institutions. Findings establish an exploratory typology of the range of disability support for undergraduate students at selective and highly selective higher education institutions.

An organizational typology is an important first step towards understanding the existing policy landscape, thereby setting the stage for future research to categorize and evaluate disability support programs and practices. This study explores, through direct content analysis, the ways in which ten selective or highly selective public higher education institutions' Disability Services Office provide services and programs, framed by key components identified in Universal Design for Learning (UDL) and the Association for Higher Education and Disability (AHEAD) 2020 Domains, Program Standards, and Performance Indicators.

Implications suggest that future research is needed to further characterize levels of support and engagement among higher education institutions' disability services models and delivery methods. The emerging typology can also be conceptualized and utilized in regard to other types of student services operations, such as Residential Life, clubs and co-curricular programs and events, counseling, and wellness support programs.

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# CHAPTER 1: CONDITION OF THE PROBLEM

## 1.1. Disability in U.S. Higher Education

Studies show that about 20% of the U.S. adult population are diagnosed with a disability, and intersect among race, gender, socioeconomic status, and orientation (NCES, 2021). In 2017, 11% of undergraduate students enrolled at an institution self-reported as having a disability, an increase from 2% twenty years ago (Antshel et al., 2021), meaning that more than 200,000 students currently enrolled have some type of disability. This reality places new demands on higher education institutions and requires considerations related to service delivery and policy (U.S. Government Accountability, 2009).

At the post-secondary level, the U.S. Office of Civil Rights (OCR) describes a qualified student with disability as a student who "meets the academic and technical standards requisite for admission or participation in the institution's educational program or activity" (DO-IT, 2021, p. 1). These students may have a physical or mental impairment that "substantially limits one or more major life activities", (OCR, 2021) has documentation of such an impairment, and is regarded as having the impairment. Over the past century, common disabilities identified in higher education institutions include: 1) Attention Deficit Hyperactivity Disorder (ADHD); 2) learning disabilities; 3) mobility disabilities; 4) medical disabilities; 5) psychiatric disabilities; Traumatic Brain Injury (TBI) and Post-Traumatic Stress Disorder (PTSD); 6) visual impairments; 7) deaf and hard of hearing; 8) concussions; and 9) Autism Spectrum Disorders (OCR, 2021).

Newman et al. (2011) found that 66% of college students with disabilities fail to persist to college graduation, a rate 17% higher than peers without disabilities. Improving

outcomes for college students with disabilities requires a multi-pronged approach, and is important to increase student success and degree attainment—both factors critical for the student and institution alike (Antshel et. al, 2021). Students who received special education services provided by the U.S. K-12 public school system under Individuals with Disabilities Education Act (IDEA) are familiar with the idea of receiving extra support in the form of academic accommodations, modifications, and support services; however, these supports do not carry with the student to higher education settings.

IDEA is a U.S. federal law that requires procedural safeguards and special education and related services for children with disabilities (IDEA, 2021). The law governs how states and public agencies provide early intervention, special education, and coordinated resource support through multidisciplinary, interagency systems to ensure the effectiveness of efforts to educate children with disabilities (IDEA, 2021). Higher education institutions are mandated by the American Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973 to provide necessary academic accommodations to increase access to education and prevent discrimination. ADA legal protections require students to seek out and self-disclose learning differences in order to be eligible for services offered by higher education institutions. Students are equally eligible for support and protections if the student's diagnosis is provided to the university (Gordan & Keiser, 1998; Kelman & Lester, 1997). IDEA does not apply in higher education settings, resulting in less prescriptions regarding how students with disabilities must be served in higher education institutions. Students and parents are sometimes under the impression that these same accommodations, modifications, and services from IDEA carry over to higher education (Shea, Hecker, & Lalor, 2019). However, while 94% of high school

students with learning differences get support, only 17% of college students do (Newman, 2011).

Academically, students with disabilities navigate the transition to the social and academic experiences of higher education with less support and protections from the IDEA policies, despite learning challenges remaining intact and while transitioning to new and unfamiliar academic, physical, and social environments (Clouder et al., 2020). Current research suggests that students with disabilities, and in part, neurodiverse learners, face unique obstacles when transitioning to a new academic and social environment (Clouder et al., 2020). Some research suggests that lack of appropriate support during the transition to college or university can have dire consequences on a student's persistence, retention, and completion of a college degree (Lotkowski, et. al, 2004). The legal protections outlined through the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act fall short of providing adequate support to address the growing and complex needs of students with disabilities, which impacts student transition, persistence and overall retention (Armstrong, 2017).Emerging literature notes that students with disabilities require different, more intentional needs to navigate social interactions and changing environments; increased academic rigor and amount of coursework; greater difficulty with executive functioning skills (i.e., time management, organizational skills, focus on tasks) (Shea, Hecker, & Lalor, 2019). Furthermore, students with disabilities may also need more time to process, write, read, and comprehend to complete assignments successfully (Griffin, 2021).

Higher education institutions are responding by putting in place programs and services for students with physical and learning disabilities. Disability support programs

are important tools that higher education institutions employ to improve student persistence and academic success outcomes (Evans et al., 2017). All private or public schools that receive federal funding are required under Section 504 of the Rehabilitation Act to make programs accessible to students with disabilities (ADA, 2020). This includes clear processes for students to submit accommodation requests and appropriate documentation; however, institutions may also determine to provide additional services and support to increase student persistence and retention. Some institutions employ additional academic success programs, including academic advising, writing services/support, quantitative services/support, testing services, and tutoring. Academic support may be provided to individual students, specific student populations (such as non-English speakers or disabled students), or all students in a school (Lalor et. al, 2018). Other institutions, focused on economies of scale, have designated Student Centers to employ wraparound support or enriching programming for students (Bruns, 2015). Wraparound support is also rooted in strengths-based philosophy and requires careful attention to the needs of each student. It also not only addresses a singular issue (e.g., completing assignments in a class by deadline) but also how the student is functioning and showing up outside of the classroom (Buntinx & Schalock, 2010).

Higher education institutions strive to meet the ADA's mandated guidelines and respond to student need but often do so with varying institutional culture, priorities and uneven resources (Evans, et al, 2017). Academic and disability support differ by institution as well. While programs, practices, and resources are increasingly being put in place at colleges and universities, very little is known about the breadth and depth of services or service delivery models that are being used. There is a serious knowledge gap

in how institutions how structured their programs and offices to support students with disabilities. This study focused on mapping out the existing landscape of programs and services for selective and highly selective U.S. public higher education institutions. Identifying this gap and mapping out the landscape of services currently in place can help shed light on the different service delivery models at the higher education level and what is effective so institutions can serve students well.

In essence, persistence and student retention rates impact institutional rankings, and therefore universities have a clear investment in engaging and supporting students with disabilities. Institutions chart their own paths to providing support and resources for these students, and there is a knowledge gap in service delivery models and support that increase student success.

### 1.2. Study Description

The purpose of this study is to respond to these knowledge gaps by examining the existing programmatic landscape and develop a typology of programs and services in place to serve students with disabilities at selective and highly selective institutions, and to explain how institutions communicate and message on public, virtual platforms. Additionally, the study considers the extent to which institutions' practices are aligned with Universal Design for Learning principles and AHEAD guidelines. AHEAD is a national organization of disability services professionals, researchers, and advocates from various higher education institutions who envision a "postsecondary experience that embraces disability and is free from barriers" (AHEAD Vision, 2021). AHEAD is a "progressive and visionary leader to develop, share, and strategically engage in

advancing professional effectiveness in supporting students with disabilities" (AHEAD, 2021, p. 1).

A typology is an important first step towards understanding the existing policy landscape and will be accomplished by a web scan of a purposefully selected set of institutions to determine whether services are in place, and where institutions have programs and services, using content-based analysis to further analyze services and supports offered to students with disabilities. In developing this typology, Universal Design for learning (UDL) and AHEAD models are utilized to help organize and categorize what institutions offer. Specifically, the study considers:

1. What services, programs, and supports are available to matriculated students with disabilities at selective and highly selective public four-year higher education institutions?
2. To what extent are institutions offering services aligned with AHEAD guidelines and recommendations?
3. To what extent are the services and supports offered by selective and highly selective public four-year higher education institutions align with best practices for supporting students with disabilities as articulated by UDL and AHEAD?

This paper is organized as follows: Chapter 2 reviews the existing literature on what is known about the needs of college students with disabilities, and the guidelines available to higher education institution for developing their program. Chapter 3 provides an overview of the conceptual framework used to guide the methods used to identify the sample of schools, content analysis and typology development. Chapter 4 presents

findings, including the created typologies, and finally, Chapter 5 concludes with a brief discussion on the implications of this work as well as steps for future, relevant research.

# CHAPTER 2: LITERATURE REVIEW

## 2.1. Literature Review Framework

More students attend college and show up with a greater range of disabilities, both visible and invisible (Evans et al, 2017). This requires more diverse disability resource support and academic accommodations, and higher education institutions are increasingly adopting policies and practices to adapt to retain and graduate students with disabilities. However, other than the legal mandates from the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973, there are no universal standards for service delivery models. As a result, higher education institutions have developed or adopted distinct approaches, resources, organizational structures, and institutional priorities in the way to address student needs (Shea, Hecker & Lalor, 2019).

This literature review synthesizes the existing body of research that describes what students with disabilities need for support at post-secondary institutions to persist and retain, and identify places where there are knowledge gaps in serving students with disabilities. The literature review is separated into three sections; 1) current research on student disability needs and effective programs and practices; 2) research on Universal Design for Learning (UDL) and the Association for Higher Education and Disability (AHEAD) frameworks that guide the types of programs and practices at higher education institutions, including subsections to synthesize key components from the frameworks; and 3) what is known about the types and range of programs that exist in higher education student support and accommodations delivery for students with disabilities.

The following questions provide the focus of the literature review:

1. How do disabilities show up in higher education? What are the needs of learners with disabilities in higher education?
2. What are best practices and effective models for supporting students with disabilities in higher education based on student success and persistence metrics?
3. What are the current disability service models and approaches in higher education?

### 2.2. Current Research on Student Disability Needs and Effective Practices

The number of college-going students with disabilities has grown from 2% to 11% in the last 25 years, with more than 200,000 currently enrolled (Shea, Hecker, & Lalor, 2019). Since the early- to mid-twentieth century, higher education institutions began to provide educational assistance for students with physical disabilities. The GI Bill of Rights, passed by Congress in 1944 generated new legislation and protections for educational accommodations. According to the American Council on Education (ACE), this was the "first time in the history of American higher education, student bodies are composed of a sizable number of disabled [veterans], ranging in types of disability from minor ailments to almost total physical disability" (Madaus, 2011, p. 6). The growth and establishment of disability services as a profession in higher education further developed in the 1970s, generating the formation of the Association on Handicapped Student Services Programs in Post-Secondary Education in 1977, and later re-named to the Association for Higher Education and Disability (AHEAD). Since the 1970s higher education institutions have expanded services and programs for students with physical

disabilities and later with learning, cognitive, and mental health disabilities (Madaus, 2011).

Clouder, et al. (2020) conducted a narrative synthesis to draw together international literature on how neurodiverse students experience higher education and the ways in which higher education institutions respond to neurodiverse circumstances. Researchers utilized an inclusive approach to extract data from relevant, international studies. Although publications largely focused on autism, ADHD, or dyslexia, common themes were identified across many learning differences associated with neurodiversity (Clouder, et. al, 2020). Themes included dislocation and lack of alignment among inclusive learning and assistive technologies and student support services; fear of stigmatization worsens the divide between what is needed and what is available for students and their access to disability support services. Findings also suggested that good intentions are not enough to provide equitable access for academic success, and programs often fall short of providing the needed services for students with disabilities (Clouder et. al, 2020). Buntinx & Schalock (2010) note that new models have "emerged in the past decade with respect to the constructs of (intellectual disability, quality of life, and supports (pp. 283). These models conceptualize how intellectual abilities, adaptive behavior, health, participation, and context relate to human functioning and quality of life. The Supports Model rationalizes that the "provision of individualized supports occurs is found in three phenomena: contextualism, social-ecology, and egalitarianism (Butinx & Schalock, 2010, p. 287). The social-ecology model explains that a person's growth, development and adjustment depend on the facilitation of congruence between the person and the setting specific factors, such as individualized supports (Butinx &

Schalock, 2010, p. 287). Facilitating this "congruence" involves determining the need, resources, and measurement of support in order to enhance human functioning. This model aligns with the assertion that service delivery models for students with disabilities in higher education settings need additional support to function successfully.

Students with disabilities experience academic impairments, social impairments, comorbidities, and higher levels of school disengagement and emotional difficulties than students without disabilities (Antshel et. al, 2021). Disability research indicate that clinical services, in concert with academic skills preparation, can improve student outcomes. Findings in a study through the University of Maryland involved a small portion of 50 clinic participants showed that more than half reported clinically significant changes in organizational skills and improved moderate levels of mood disorder and half of the students reported changes in alcohol use by the end of the program (Oddo et. al, 2021). Multi-modal programming, as well as evidence-based guidelines like Universal Design and the Association for Higher Education and Disability (AHEAD) Domains, Standards, and Performance Indicators help to address student need and foster more equity and access to educational opportunity.

### 2.3. Universal Design for Learning (UDL)

Universal Design (UD) originated in the 1990s by North Carolina State University architect and designer Ron Mace and primarily focused on access to physical space for all people without the need for adaptation (CAST, 2011). UD demonstrated that some design elements, when established in the beginning, do not need future modification, and that all people would be able to utilize the features, such as automatic door openers, universal height water drinking fountains, and entry ramps.

UD was later adopted in educational policies and practices to espouse more inclusive and accessible instructional practices for all students, called Universal Design for Learning (UDL). The Disability Act of 2005 defines Universal Design as:

> The design and composition of an environment so that it may be accessed, understood, and used to the greatest possible extent; in the most independent and natural manner possible; in the widest possible range of situations, without the need for adaptation, modification, assistive devices or specialized solutions, by any person of any age or size or having any particular physical, sensory, mental health or intellectual ability or disability. (p. 46)

Whereas UD's goal is to remove structural barriers in physical environments, UDL's goal is to eliminate possible barriers for learning. UDL has shifted the description of "disability" from the individual to the curriculum and learning infrastructure. Namely, the UDL framework is a set of principles for curriculum development to give all individuals equal opportunity to learn and succeed. UDL consists of seven fundamental principles which guide the design of physical and learning environments:

- Principle 1: Equitable use (design is useful for all diverse abilities)
- Principle 2: Flexibility in use (design accommodates a wide range of diverse abilities)
- Principle 3: Simple and intuitive use (design is easy to understand, regardless of users' experience, knowledge, language, or concentration level)
- Principle 4: Perceptible information (design communicates necessary information effectively)
- Principle 5: Tolerance for error (design minimizes hazards or unintended consequences)

- Principle 6: Low physical effort (design can be used efficiently and with comfortably)
- Principle 7: Size and space for approach and use (design is appropriate for size and space to be used regardless of body size, posture, or mobility)

(CAST, 2018)

These principles are used to: 1) evaluate existing designs; 2) guide the design process, and 3) educate about the characteristics of more usable and accessible products and environments (National Disability Authority, 2009). UDL combines innovative and inclusive approaches for engaging students and challenging them to think critically. It helps instructors meet the learning needs of a diverse student body through a combination of instructional modalities, formats, and technologies. It also provides an opportunity to develop more self-aware learners. Furthermore, UDL practices can help to remove the debilitating stigma for those students who have different learning needs and who need to self-disclose and advocate for appropriate accommodations for opportunities for equal learning and success (Evans et al., 2017).

UDL differs from other concepts of UD because it is focused on the neuroscience of learning and instructional support (Parker, 2011). It is grounded in cognitive neuroscience. UDL in curriculum and student support can help higher education professionals think about creating multiple ways for students to engage with, present, and demonstrate understanding of content. There is a variation of obstacles, challenges, and needs for students with disabilities, and UDL principles and practices in academic support programs can achieve the same types of benefits associated in the curricular design (CAST, 2018). Furthermore, it can broaden impact and services for

students who have not received a diagnosis but who would benefit from inclusive practices.

The strength of UDL application in higher education includes its research-based methods and connection to legislation, which indicates its sustainability use in educational pedagogy and academic support (Parker, 2011). UDL has influenced educational policy, and is included in the language of the federal Higher Education Opportunity Act of 2008. The Act passed uses the framework when discussing how to prepare future teachers in higher education institutions that receive federal funds. Specifically:

> The development of innovative, effective, and efficient teaching methods and strategies, consistent with the principles of universal design for learning, to provide postsecondary faculty, staff, and administrators with the skills and supports necessary to teach and meet the academic and programmatic needs of students with disabilities, in order to improve the retention of such students in, and the completion by such students of, post-secondary education. (Parker, 2011, p. 32)

Al-Azawei, Serenelli2, and Lundqvis (2016) completed a content review analysis of 12 papers published between 2013-2015 when Universal Design for Learning (UDL) was adopted and analyzed seven themes: 1) type of results; 2) study beneficiary; 3) sample features; 4) geographical region; 5) data collection techniques; 6) data analysis techniques; and 7) learning modes. They found that Universal Design for Learning may be an efficient approach for designing flexible environments and accessible academic content, and the modalities in which students retrieve and use such content (p. 11). The research also indicated that the designs can match a wide variety of needs, learners'

abilities, background knowledge, educational experience and cultural differences (Al-Azawei, et. al., 2016).

Though UDL research is growing among post-secondary educational settings, there has been existing research conducted in U.S. K-12 school contexts, which can shed light on disability supports and practices that may demonstrate more effective results. Some research that includes UDL principles to promote and institute accessibility and opportunity for learning and academic success within curricular and instructional design, though there is little but emerging research to address how UDL principles are infused in academic support programs (Rose & Strangman, 2007). This can be an area for additional research and evaluation in higher education contexts.

Though the focus of this work centers around the higher education space, providing support and services for neurodiverse learners is newer in comparison to the US K-12 public school structures. Models such as Universal Design for Learning (UDL) have been considered and reviewed through the K-12 schools, and there is some research examining evaluative standards and efficacy in practice for student academic and student success. There are elements that can be translated to the higher education setting to continue services and supports for students with disabilities.

Ok et al. (2017), examined to what extent and how UDL based interventions can fulfill the promise to provide diverse students with the general education curriculum (2017). The study reviewed 13 existing studies that investigated the impacts of academic and social outcomes for preschool to grade 12 students, using common UDL principles and efficacy of UDL-based interventions. Results suggested that UDL instruction and student support potentially increases engagement and access to general studies

curriculum for students with disabilities, and improve students' academic and social outcomes. Researchers also found mixed findings regarding the varied efficacy of UDL-based interventions with effect sizes ranging considerably. There was also variance in reported connections between the interpretation of UDL principles and components of student success interventions (Ok et al., 2017).

Additionally, K-12 literature also suggests that learning scaffolding in technology and games are linked to improved productive persistence and computational thinking for neurodiverse students. Katz (2020) led a research team to study how neurodiverse learners develop computational thinking and executive functioning skills through game-based learning. The research consisted of tracking students' progress in a computer game called "Zoombinis," and argued that digital games can lead to improved learning in other areas. Results note that teachers can bridge activities and strategies to connect implicit learning in games to external classroom learning (Katz, 2020). Neurodiverse students between third and eighth grades who played more of the game showed more improvement and external measures of computational thinking. These students' teachers also reported students becoming more engaged in content materials and was a helpful strategy to support problem-solving practices with students with IEP and 504 plans. Thus, game play demonstrated scaffolded executive function skill building in a way that teachers were not conventionally describing to students (Katz, 2020).

### 2.4. AHEAD Domains, Professional Standards and Performance Indicators

There is not a sole evaluative entity that mandates institutions to provide fuller and more comprehensive support for students with disabilities. However, more of these students are entering college, and institutions are reassessing their own support structures

and priorities. To fill the gap of a universal rubric of academic support best practices, the Association for Higher Education and Disability (AHEAD) has established and updated guidance of domains, program standards, and performance indicators (Lightner, K., et al., 2012).

AHEAD is a national organization of disability services professionals, researchers, and advocates from various higher education institutions who envision a "postsecondary experience that embraces disability and is free from barriers" (AHEAD Vision, 2021, p.1). AHEAD is a "progressive and visionary leader to develop, share, and strategically engage in advancing professional effectiveness in supporting students with disabilities" (AHEAD, 2021). Similarly aligned with the concept of UDL, the purpose of AHEAD is to ensure effective participation by individuals with disabilities in every aspect of the postsecondary experience. Centered by this mission, AHEAD has developed and endorsed a code of ethics, program standards, as well as professional standards of practice — all of which consider the importance of redesigning a campus environment and culture to be as accessible as possible (Strauss, 2010). AHEAD is a leading national authority on disability research and service delivery.

AHEAD's research priorities were identified by an invited ad hoc committee and are reviewed and updated to address emerging issues and changing information needs in the field. Priorities are rooted by disability resource office structures, policies, and practices-including data based decision making and driven by student development practices; campus collaboration and structures to include support and accessibility work outside of the disability resource office; social justice practices; trends and outcomes, such as emerging populations, intersectionality and marginalized groups, persistence and

graduation rates, outcomes from participation in disability resources, campus supports, and specialized programs; and the use of existing research and data, including national datasets like the National Center for Education Statistics (NCES) datasets (AHEAD, 2021). The domains, standards, and performance indicators provide aspirational goals for professionals to address barriers for people with disabilities in university and college settings. There are five domain categories:

- Provide leadership and collaboration in framing a commitment to disability access and equity as an integral aspect of their institution's culture (Domain 1)
- Advise and educate the campus community about disability and inclusive practices (Domain 2)
- Provide services, strategies, and accommodations to mitigate the barriers faced by individual disabled people (Domain 3)
- Administer office operations guided by a mission and with access to appropriate resources (Domain 4)
- Enhance their professional knowledge and skills (Domain 5)

AHEAD's domains, standards, and performance indicators signify essential expectations for higher education institutions to provide minimum support to strive towards equal access for students with disabilities. The intent was to provide a benchmark to review when institutions consider "availability of appropriate supports, program evaluation, staff development or program development needs" (Shaw & Dukes, 2006, p. 18).

To this end, AHEAD recently revised its 2006 Domains, Program Standards,

and Performance Indicators. The five Domains provide an organizational framework for the Program Standards that relate to the work of disability resource office (AHEAD, 2020). Each Program Standard includes numerous Performance Indicators that serve as a non-exhaustive list of how each Standard can be implemented. "Collectively, the Domains, Standards, and Performance Indicators provide benchmarks for colleges and universities related to the work of disability resource offices" (AHEAD, 2020, p. 1). They are evidenced based and designed to promote an aspirational perspective of services, support, and engagement for disability offices in 2020 (AHEAD, 2021). Though the 2006 document noted the words "access" or "accessibility" 37 times, the term "equity" was not present at all. The document has since evolved in 2020 to include "equity" 11 times and "access" or "accessibility" 44 times (AHEAD, 2021, p. 1). Such evolution in language signals an increased awareness and commitment in extending services beyond U.S. legal mandates and requirements.

The revised program standards came in a timely fashion, given that "postsecondary disability services are a rapidly developing field with a relatively short history; these results have a limited shelf life" (Shaw & Dukes, 2006, p. 20). The 2020 revised AHEAD domains, standards, and performance indicators mention advocacy on four occasions, including "proactively advocate for the mitigation of barriers to access in all campus programs, services, and activities in physical, digital, academic, and co-curricular experiences" (AHEAD Domain, 2020, p. 1). Representation is also included in the first domain, noting that disability representation should be promoted at all levels of institutional decision making, including the participation of advisory committees related to equity and diversity initiatives.

The Domains, Standards, and Performance Indicators were based on a large sample of post-secondary disability practitioners across North America as services for students with disabilities were rapidly changing between 2001 (the inaugural program standards document) and 2006 (revised), and then again in 2020 (Shaw & Dukes, 2006). Advancements in technology, as well as increasing disability cultural awareness, focus on collaboration among faculty and administrators, and the substantial growth of college-going students with documented learning differences were ushered in the updated program standards versions.

Evidence-based services have become the expectation in the 21st century. In response to the needs of the disability services profession, the new domains, standards, and program indicators in 2020 provided updated internationally recognized benchmarks for the Office of Students with Disabilities to use for initiatives such as program development and accountability measures (Shaw & Dukes, 2006). The standards are intended to enhance and expand the vision of disability equity at the postsecondary level (AHEAD, 2021).

The following sub-categories include recurring and relevant themes that UDL and the AHEAD domains and performance indicators recommend higher education institutions employ in order to better accommodate, serve, and engage with students with disabilities, including neurodiverse learners. The full 2021 AHEAD Domains, Standards, and Performance Indicators are included in Appendix 1.

### 2.4.1 Accessibility

ADA and Section 504 of the Rehabilitation Act of 1973 mandates higher education institutions to provide resources in accommodations for learners to have an

opportunity to access support. However, it can be much more anemic than the safeguards in place through IDEA in the U.S. K-12 public education systems (Evans et al., 2017). The general concept of accessibility implies that there are users and objects of accessibility (Interaction Design Foundation, 2021). There is a common view that accessibility is for people with disabilities and provides access to learning environments and materials. This is the extent of the ADA legal mandate, and centers primarily on physical and content accessibility (ADA, 2020). This is a narrow perspective, and addresses the need for a subset of a college-going population. UDL and AHEAD shift the foundational change when designing accessibility that benefits everyone, and not just learners with disabilities who proactively seek out services or have a resourceful network of support. If universities were to offer services targeting the student body as a whole, students would not be required to identify themselves as having any diagnosis (Edyburn, 2011). Therefore, students would not stand out from peers and could keep any diagnoses confidential while still accessing services designed to support students with similar needs.

Accessibility also extends to website design and navigation. (McKenzie, 2019). A university website is a very visible public space for many different audiences: prospective students, current students, alumni, institutional competitors, and others. Content and Web design displays institutional priorities, values, and resources. Therefore, if a website is difficult to navigate and is largely inaccessible, students may not consider applying to or attending the university. Web accessibility matters because it is the law (New Media Campaigns, 2020). Though the ADA was initially drafted in 1990, websites are included under the ADA, and noncompliance has consequences including

accessibility lawsuits. For example, The National Association for the Deaf filed two high profile civil lawsuits against Harvard and MIT in 2019, with the premise that course content was not made accessible for people who are deaf or hard of hearing (Burke, 2020).

### 2.4.2 Assistive Technology

Assistive technology can also contribute to a more inclusive, engaging, and interactive learning environment (CAST, 2018). Technology engages students in simulated experiences and encourages them to practice collaborative decision-making skills (Burgstahler, 2008). If appropriately incorporated in instructional design and implementation, academic exposure to technology deepens understanding because learners internalize concepts while acquiring authentic skills (Burgstahler, 2008).

The key to UDL is leveraging the power of new technologies. While the "dominant instructional medium of text is effective for some students, text is a barrier to access and understanding for many other students, including those with visual deficits, learning disabilities, and certain physical disabilities" (Rose & Strangman, 2007, p. 385), some higher education institutions lag behind K-12 schools in the implementation of technologies (Rose & Strangman, 2007).

Many higher education institutions aim to provide personalized services to students with disabilities, including face-to-face counseling, peer mentoring, and support in obtaining accommodations. Services can promote the UDL framework for supporting all students and can provide meaningful ways for students to have multiple ways of engaging in their learning (CAST, 2018). This engagement increasingly includes technology.

Technology, specifically assistive technology, can allow students to receive access to education, build studying skills sets, reinforce practices for focus and organization, and achieve academic success. Technology helps provide students with individual learning events, enables increased flexibility and can promote differentiation in educational methodologies (Al-Azawei et al., 2016).

Such systems and materials can be cost prohibitive, and faculty and academic support staff need to generate their own learning and comfortability of incorporating such technology in their learning environments (Al-Azawei et. al., 2016). Technology can promote variability and options for neurodiverse learners to act and express through different channels (Edyburn, 2011). Strategies to engage diverse learning systems involve the use of technology, and there is an increasing need for instructors to be both pedagogically trained to support learning differences and to understand the changing landscape of learning accommodations (Evans et al, 2017).

Traditionally, technology has been designed for either neurotypical students or neurodiverse students. UDL reframes the need for instructors to step outside of comfort zones and design course syllabi, policies and practices to create a more inclusive learning environment, including more attention to technological practices. Examples could include turning on captions for a movie or video clip or including a brief description of an image or visual with alt text to accommodate students using screen readers (Edyburn, 2011). Such practices assist students who utilize adaptive technology, but also result in increased learning for all students.

### 2.4.3 Learner Variability

Learner Variability attempts to solve the problem of the myth of the average

learner (Rose, 2012). Todd Rose (2012) suggests that most learning environments are designed to avoid variability and do not advance beneficial aspects of learning diversity. There is great variability with neuroscience — that is the rule and not the exception. Findings indicate that each human learns using three primary networks in the brain, including affective, recognition, and strategic networks. Each network makes unique interconnections influenced by the context in which learning happens, the individual's emotional state, and the individual's experience, background knowledge, interests, and abilities (CAST, 2018). These combinations make learning highly variable.

The basic definition of learner variability is that all individuals are unique in how they learn. Each student brings a different learner profile to the classroom. When variability is visible or acknowledged, academic skills can be recognized that would otherwise remain invisible. UDL proponents argue that traditional learning environments and school systems use a one-size-fits-all model that continues to under-serve many learners, both neurodiverse and neurotypical students (CAST, 2018).

The inclusive support frameworks compel educators to embrace the idea of learner variability as an asset when thinking about students and curriculum. Starting from a place of acceptance of learner variability allows educators to design ways for all students to engage, understand and respond in more meaningful ways and become stronger learners (CAST, 2018). The end goal is for each learner to know themself and be supported and inspired to reach their full academic potential.

### 2.4.4. Equity

Disability in higher education, particularly neurodiversity, may be the new frontier of social justice and equity issues (Elliott, 2018). Historically, learners with

disabilities navigate structural challenges and barriers for access and opportunity for learning success. This intersectionality suggests that equity and social justice pertaining to educational access and success outcomes cannot be parsed from disability challenges and perspectives (Gillepsie-Lynch, 2017).

Malcolm-Piqueux (2017) describes the "principles of equity-mindedness" which is a "schema that provides an alternative framework for understanding the causes of equity gaps in outcomes" (p. 6). Malcolm-Piqueux overlays this concept with systemic racial inequities, but many concepts can also be applied to other marginalized populations such as people with learning differences. Reducing inequities requires practitioners to become more equity-minded as well as institution equity-mindedness in practices and policies across the university (Malcolm-Piqueux, 2017).

Other best practices literature explains that the UDL framework is intended to proactively design curriculum to decrease barriers in the learning environment, improving instructional accessibility for learners in the margins (CAST, 2011; Meyer, Rose, & Gordon, 2014). Presumably, this can lead to improvement in instructional access, resulting in equitable outcomes.

The first UDL principle outlines Equity in Use (CAST 2018), to promote opportunity for all learners, given respect, awareness, and appreciation of student's neurodiversity, culture, and different backgrounds. UDL contests the traditional educational structure which has historically separated special education and general education, fortifying stigma for neurodiverse learners (Meyer, Rose, & Gordon, 2013). Educational institutions dedicated to UDL principles embrace a culture of inclusion, not only for students with disabilities but as part of a core intent and mission of equity.

With an emphasis on equity, educators move toward recognizing that all students have unique needs with the intention of providing access points in learning and student development, not just by creating extra or separate programs for students with disabilities (Evans, 2017). The word universal in UDL was selected intentionally because curriculum and associated learning experiences ought to honor and reflect all learners' backgrounds, strengths, and needs (Rose, 2012). Essentially, the overarching purpose of best inclusive practices in curricular design, implementation, and academic support, is to institute more equitable practices and approaches to benefit not only students with disabilities and the unique challenges they experience in higher education, but all students.

The recent AHEAD domains, standards, and performance indicators have evolved to embrace and embed equity-mindedness practices and language. Equity includes equitable access to an academic experience for those with learning differences that are similar to those without learning differences (AHEAD, 2020). While access strives towards equal and equitable opportunities to take advantage of education and to generally remove barriers preventing equitable participation, equity is to close gaps between groups based on relative resources, situational factors, historical deficits, and (often unintentional) policies and practices that create barriers to success (Elliott, 2018). This definition of equity requires a social justice, systemic perspective that interrogates structures and strives for a campus culture engendered in advocacy and education of disability culture.

### 2.4.5. Advocacy and Representation

Institutions are making progress to more concertedly serve students with

disabilities, including neurodiverse students, but some advocacy scholars suggest that higher education has been slow to recognize disability "as an identity group or include it in programming around diversity and inclusion" (Burke, 2020, p. 1). In response, some institutions have developed or strengthened disability cultural centers, or have restructured to incorporate the Disability/Accessibility Services Office in diversity, equity, and inclusion divisions. Through continued advocacy and increasing societal awareness on disability within the United States, disability services often remain confined to educational modifications and reasonable accommodations.

According to Inside Higher Education (2020), a study of 23 California State University websites from 2012-2014 found that only one associated disability with diversity and inclusion (Burke, 2020). Advocates note that diversity is often viewed as a technical issue related to legal compliance, and this framing "forecloses any other discussion or experience or identity of social power" (Burke, 2020, p. 1).

A social justice framework posits that colleges and universities that provide ADA, Section 504 accommodations but fall short of creating "truly inclusive, accessible and welcoming campus environments, reinforce ableist attitudes" (Evans et al, 2017, p. 251). Reinforcing these attitudes outlines assumptions about what is normal and disadvantages students with disabilities. Advocacy, representation of diverse voices, and institutional commitment to creating a truly inclusive campus environment requires universities to educate, accept and support people from all backgrounds, including community members with disabilities (Evans et al., 2017).

This final section reviews the types and range of programs that exist in student support and academic accommodation delivery for higher education institutions,

identifying the national laws that guide and mandate requirements for the disability services offices, other ways in which offices are providing additional supports beyond the legally mandated guidelines, and the aspirational wraparound, multidisciplinary delivery model.

### 2.5. Legal Mandates for Higher Education Institutions

A major legal role of Student Disability/Accessibility Services is to communicate with faculty and students on constructing the best approach to implementing accommodations. Two fundamental laws directly impact Disability Services operations: Rehabilitation Act of 1973, Section 504, and the Amendment to the Americans with Disabilities Act of 2008 (US Department of Education, 2020).

The Rehabilitation Act of 1973 was the first anti-discrimination law for people with disabilities, requiring organizations to make reasonable modifications in settings and facilities to increase accessibility (ADA, 2020). Section 504 is particularly relevant to post-secondary settings and focuses on providing equal opportunity to qualified persons with disabilities. Institutions must be prepared to make reasonable academic adjustments and accommodations to allow students with disabilities full participation in the same programs and activities available to their peers without disabilities (Shea, Hecker, Lalor, 2019). Reasonable indicates that a school, academic program, or course does not have to change the fundamental nature of a program or be subjected to financial hardship (ADA, 2020).

Student Disability Services Offices must outline legal language on their websites, and incorporate communication mechanisms for students to review or appeal

their clarifying information during the intake process with students (Banerjee et al., 2020). The student needs to self-disclose and provide all relevant and appropriate documentation in order to access accommodations, and often needs to remain in contact with the office for continuation of services. Accessibility accommodations are often made on a case-by-case basis according to the needs of the individual student and the nature of the student's course of study (Shea, Hecker, & Lalor, 2019). Some offices interact and intersect with additional resources, and have different models in providing support and services for students.

The Americans with Disabilities Act in 1990, as well as the Amendment in 2008, further reinforces the Rehabilitation Act statutes, including protections under Title III, “individuals with disabilities shall benefit from full and equal enjoyment of all goods, serves, facilities, privileges, advantages, or accommodations of any place of public accommodation” (ADA, 2020).

Therefore, accommodations extend beyond the education curriculum and into physical space (accessible buildings and technologies) and related accessible services including residential life, food services, and parking. In essence, the legal mandates emphasize access for equal opportunity but do not expand into additional supportive and equitable ways to help students with disabilities foster self-advocacy, student success, and confidence. These legal requirements have compelled higher education institutions to create and maintain student disability services offices, especially if the institutions receive federal funds (ADA, 2020).

Disability supports are programs, initiatives, and strategies that are used by schools to increase the academic achievement of students, particularly for students who

may be at risk of poor academic progress and achievement. A wide variety of strategies have been developed to provide extra support to students. For neurodiverse students in particular, the use of academic advising and academic support services can be important for persistence in higher education (Lotkowski et al., 2014). Academic support services vary from institution to institution; however, common components include identifying eligible accommodations and services: 1) use of note-takers for class lectures; 2) audio recordings of lectures; 3) additional time in completing exams and/or assignments; 4) taking exams in a designated, distraction-reduced room.

### 2.6 Resource Support and Programming for Students with Disabilities

Some institutions employ additional academic success programs, including academic advising, writing services/support, quantitative services/support, testing services, and tutoring. Academic support may be provided to individual students, specific student populations (such as non-English speakers or disabled students), or all students in a school (Lalor et. al, 2018). Other institutions, focused on economies of scale, have designated Student Centers to employ wraparound support or enriching programming for students (Bruns, 2015). These supports may include personalized academic coaching, peer mentoring programs, and other individualized, consistent outreach and support to gauge a student's transition and persistence at the institution.

Disability-related knowledge and competence among college administrators and service providers is the bedrock of programmatic success. Lalor and Madaus (2020) completed a Delphi Study to examine perceptions of 20 experts in student affairs regarding disability-related competencies. Four broad areas were identified: 1) disability related emergencies and crises; 2) disability exploration; 3) disability law and policy; and

4) disability resources. They found that these topics are essential for effective service delivery and fostering a more inclusive and equitable campus environment. Particularly regarding Disability Resources, results suggested that college professionals should be knowledgeable of important services and resources for students (regardless of learning difference) but should also consider other factors such as the student's desire for privacy, stigma associated with the disability, and other potential student preferences (Lalor & Madaus, 2020). This suggestion ushers in a holistic, student-centered advising and referral approach that prioritizes student needs first.

The study also emphasizes the need for college professionals to know when and who to consult regarding issues that may involve legal ramifications. The study suggested that there was not a clear agreement as to whether knowing or acting in accordance with laws like Section 504 or the Americans with Disabilities Act is important, but baseline knowledge should include the facts that: a) disability rights are civil rights; b) students with disabilities are expected to meet the same standards as their peers without disabilities; and c) professionals should be aware that medical documentation is confidential (Lalor, 2020).

### 2.7. Wraparound Support for College Students with Disabilities

Research indicates that comprehensive wraparound support for students with disabilities is resource-laden but powerful and effective approach to supporting college students with disabilities (Shea, Hecker, & Lalor, 2019). It validates the importance of collaboration between service providers, academic advisors, faculty, and staff in institutions of higher education to support students and help them advance their

educational goals. Creating a team of support for students may help foster confidence, scaffolds skill building, and improves persistence and retention outcomes (Bruns, 2015).

Wraparound was not developed from a formal theory of change, but as an alternative to more medically-oriented models of services that have failed to address the importance of context and normative roles on behavioral development and adjustment (Buntinx & Schalock, 2010). Elements are focused on strengths based, individualized, community based, interagency coordinated, and culturally competent models.

Instead of exclusive or restrictive environments, policies, and practice, institutions that employ a wraparound supportive approach implement proactive interventions that match the complexity and intensity of the students' needs (Shea, Hecker, & Lalor, 2019). Wraparound support is also rooted in strengths-based philosophy and requires careful attention to the needs of each student. It also not only addresses a singular issue (e.g., completing assignments in a class by deadline) but also how the student is functioning and showing up outside of the classroom (Buntinx & Schalock, 2010).

Wraparound also incorporates much of the social learning theory of Bandura (1977). Behavior is shaped by the interaction of those biological characteristics and the many reciprocal relationships that occur over time. It is consistent with the systems theory espoused by Munger (1998). In addition to ecological sensitivity, this theory recognizes that "change in one part of a system can influence other parts of the system and that the most effective system is one that maximizes the collaboration and coordination among multiple parts" (Bruns, 2015).

Lightner et al. (2012), performed 42 interviews with college students with learning disabilities at a large, selective university, inquiring about their reasons for seeking disability services. They noted that students who sought services earlier than their peers performed better academically than students who postponed services. They assert the relationship that the more proactive a student was in receiving accommodations and support, the more successful they were in their academic and social development at university (Lightner, et al., p. 145). Therefore, proactive and engaging outreach and programming from institutions to incoming students can offer a greater change of retention, persistence, and academic success.

### 2.8. Summary of Literature Review

In summary, this literature review synthesized the existing research on the frameworks and expectations for how higher education institutions should support students with disabilities. Institutions are bound by federal laws such as the ADA and Section 504 to provide reasonable accommodations to provide equal academic access and opportunity. However, as more students with disabilities enter post-secondary institutions as well as emerging values of fostering social justice, diversity and equity in campus environments, colleges and universities are considering ways to support students beyond basic accommodations. Universal Design for Learning and the Association for Higher Education and Disability (AHEAD) provide more comprehensive, evidence-based guideposts for institutions to re-imagine, develop, implement, and continually assess how to better serve and engage students.

# CHAPTER 3: METHODOLOGY

The purpose of this exploratory study was to investigate the extent to which ten selective and highly selective higher education institutions provide targeted supports and services for matriculated students with disabilities that are aligned with evidence-based practices informed by UDL and the AHEAD Domains, Standards, and Performance Indicators. Targeted supports and services for undergraduate students with disabilities was assessed based on the information and resources available on their publicly available web pages for Disability Services Offices. Specifically, the study was guided by two questions:

1. What services, programs, and supports are available to matriculated students with disabilities at selective and highly selective public four-year higher education institutions?
2. In what ways do higher education institutions differ in the consideration of services that they provide?
3. To what extent are the services and supports offered by selective and highly selective public four-year higher education institutions align with best practices for supporting students with disabilities as articulated by UDL and AHEAD?

The study included a purposeful sample of ten highly selective public four-year higher education institutions. Large, public institutions were chosen as they typically have a larger student body and offer more degree programs, and are partially funded by local, state, or federal funding to charge lower tuition rates than private institutions. Selective and highly selective institutions were identified as research finds that selective

colleges tend to have more resources than unselective colleges, and tout higher graduation rates (Leonhardt, 2013). Content analytic methodologies were used to catalogue and analyze the types and extent of information available to students. Content analysis systematically examines the presence of words, themes, and concepts in print and electronic media and then quantifies the meanings and relationships of these words in the context, with then goal "to provide knowledge and understanding of the phenomenon under study" (Downe-Wamboldt, 1992, p. 314). As an analytic tool, content analysis may be conceptualized broadly to include, "any qualitative data reduction and sense- making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings" (Patton, 2002, p. 453).

Content analysis is appropriate for exploring how information available to students with disabilities on institutional websites may shape their understanding of available academic and non-academic supports (Mertens, 2014). Information shared by higher education institutions is deliberate forms of communication that convey meaning and offerings for student services and supports, including academic accommodations, and as a method, content analysis enables the analyst to "objectively" identify special characteristics of messages (Columbia Public Health, 2021, pp. 1). This is particularly important, given that institutional messages about supports and services for students with disabilities can inform the meaning students make about the level of support and engagement institutions are willing, prioritize, and are able to provide. What is represented on the student disability services websites and other public documents reveals authority, power, and inequalities as decision making arbiters resulting in what language is used, and what language is omitted or absent.

Content analysis may be applied to efforts focused on validating or extending an existing conceptual or organizational framework (Berg, 2001). For this study, initial coding started with an existing evidence-based framework that describes best practices for institutions to follow when developing policies, programs, and resources for supporting students with disabilities: The AHEAD domains, standards, and program indicators. AHEAD is the Association for Higher Education and Disability, and is a national professional membership association that offers guidance, resources, and best practices to disability resource professionals, student affairs professionals, IT staff, faculty and others (AHEAD, 2021). AHEAD membership reaches broadly, with more than 4,000 current members representing 50 U.S. states and over 10 countries. AHEAD leaders are active in-service provision, consultation and training, and policy development to promote accessibility in educational environments (AHEAD, 2021). The 2021 domains, standards and program indicators consist of five domains, 15 standards, and 104 program indicators within those standards.

### 3.1 Sample Selection

Ten large, public, selective and highly selective four-year U.S. higher education institutions were identified to participate in this study, which represents roughly 10% of the 110 national colleges and universities with less than 60% acceptance rate for Fall 2020 (US News Rankings, 2021). Institutions were then purposefully selected based on the following criteria: (1) publicly funded; (2) enrollment greater than 14,000 undergraduate students (i.e., large); (3) regional representation among the contiguous U.S.; (4) selectivity indicators, including fall 2020 acceptance rate for incoming undergraduate students with less than 60%; (5) retention/academic completion factors,

such as above the 6-year graduation rate average for public universities (61%); and (6) AHEAD membership involvement at each institution as found in the Association's membership directory.

Large, public institutions were chosen as they typically have a larger student body and offer more degree programs, are partially funded by local, state, or federal funding to charge lower tuition rates than private institutions. Institutions were found through the U.S. News Higher Education Institution database, and criteria included 2020 acceptance rate for undergraduate students of 20-70%, undergraduate enrollment size of 14,000 and higher. The US News database considers institutions within this range as "more selective" to "most selective".

Sixty-five of institutions initially fit the selected criteria. Experts and researchers in disability studies were subsequently consulted to further winnow the sample to institutions with strong reputations for disability services and programming, and that house disability cultural centers and disability or UDL research centers. Lastly, it was verified that the institutions' disability services offices had an established and accessible web presence that would provide enough data for content analysis.

The 10 universities ultimately chosen were: 1) University of California-Los Angeles; 2) University of Connecticut; 3) University of Washington; 4) Florida State University; 5) University of Maryland; 6) Georgia Institute of Technology; 7) University of Michigan-Ann Arbor; 8) University of Virginia; 9) Pennsylvania State University; and 10) University of New Mexico. The selection of this cohort also provided a cross-section of US regional representation. First 1 outlines the general characteristics of the selected institutions.

**Table 1**

*Characteristics Criteria for Identified, Selective and Highly Selective Institutions*

| | UCLA | GIT | UCONN | UNM | UMich | FSU | UVA | UW | PSU | UMD |
|---|---|---|---|---|---|---|---|---|---|---|
| **Size** | 31,636 | 16,561 | 18,917 | 16,124 | 31,329 | 32,543 | 17,311 | 43,069 | 39,809 | 30,875 |
| **US Location** | West | South | Northeast | South-West | Mid-West | South-East | Mid-Atlantic | NW | Mid-Atlantic | Mid-Atlantic |
| **2020 Acceptance Rate (UG)** | 16.3% | 20.5% | 58% | 54% | 26% | 37% | 33% | 56% | 54% | 59% |
| **6-Year Graduation Rate** | 91.5% | 86.% | 83% | 60% | 81% | 84% | 91% | 77.3% | 66.3% | 85.4% |
| **Number of specialists with AHEAD Membership** | 4 | 5 | 10 | 8 | 6 | 3 | 11 | 11 | 3 | 2 |

## 3.2 Data Collection

### 3.2.1. Content Identification

Student Disability Services Office websites were the primary source of data on selected institutions' policies, programs, and resources available to students with disabilities.[1] In the current virtual and technological era, institutions' websites serve as a gateway to its mission, services, policies, and procedures, and the content presented on the Student Disability Services Office websites further convey priorities, organizational culture, and filter of what information it wishes to disseminate to internal and external audiences. Student Disability Services Office websites are available to both prospective and current students at the institution, as well as other stakeholders and the public. Table

[1] Some institutions call the entity that offers accommodations and support the Office of Disability Services, while others name it the Office of Accessibility Services. The different naming of these similar offices also demonstrates priorities. Other names include Disability Resources for Students; Center for Students with Disabilities; Disability Support Service; etc. For the purposes of this study Student Disability Services Offices will be used generally to reference the offices and departments included in this study.

2 refers to the office title and website link for each selected institution.

**Table 2**

Selected Institutions, disability services office titles, and webpage links

| Institution | Student Disability Services Office Title | Webpage |
|---|---|---|
| University of Maryland | Accessibility and Disability Services-UMD Counseling Center | https://www.counseling.umd.edu/ads/ |
| University of CA.-L.A. | Center for Accessible Education | https://cae.ucla.edu |
| Georgia Institute of Tech. | Office of Disability Services | https://disabilityservices.gatech.edu |
| University of Connecticut | Center for Students with Disabilities | https://csd.uconn.edu |
| University of New Mexico | Accessibility Resource Center | https://arc.unm.edu |
| University of Michigan | Services for Students with Disabilities | https://ssd.umich.edu |
| Florida State University | Office of Accessibility Services | https://dsst.fsu.edu/oas |
| University of Virginia | Student Disability Access Center | https://studenthealth.virginia.edu/sdac |
| Pennsylvania State University | Student Disability Resources | http://equity.psu.edu/student-disability-resources |
| University of Washington | Disability Resources for Students | https://depts.washington.edu/uwdrs/ |

Content from selected Student Disability Services web pages included all information targeted at prospective and current undergraduate students. Such information included specific webpages for prospective students and families when considering applying for or matriculating to the university, as well as any information targeted for current undergraduate students. These criteria excluded any specific information for graduate students or resources and references for faculty. Institutions have differing organizational models in which offices may be named differently as well as varying emphases on webpage information. Public documents that are available and accessible for all institution stakeholders include direct Student Disability Services web pages, including the office's mission, accommodations, services, referrals, staff directory, and any specific program offered directly through the office itself.

Each disability services webpage that incorporated staffing, mission, services, accommodation and civil rights policies and processes, and specialized programs were saved as individual PDFs and stored in NVIVO under each institution's Web content was

accessed during May 2021. Additionally, each webpage that was collected helped to form a network "map," including all of the web pages that fit the study's parameters. To ensure consistency in reviewing all relevant information within the established parameters, each institution's formed map was compared. Analysis included an inductive process and there was a prompt for a second examination of content, and therefore the pages were reviewed again in August 2021. For example, if a web page titled for prospective students was collected by one institution but not another, there was a second phase of data collection for each institution to ensure accuracy. Given this timeline, it is possible for content to have been updated, edited, or removed during the data collection period.

### 3.2.2. Exclusion Criteria

Institutional organization culture can be mapped out in a web or network, and very rarely is an office solely isolated from others. In fact, more institutions adopt organizational practices to spur more collaboration, grouping, and maximizing of resources, and build a nexus of academic and student affairs practices. Since the focus of this study is to explore language specifically among student disability services websites, it is important to highlight that secondary or tertiary collaborative offices will not be included in the sample of documents informing the study. For example, links to another program or referral to a service on campus outside of the Disability Services Office were not considered. Programs collaboratively led by and communicated specifically through the Student Disability Services Office and another office were noted. Documents that were excluded from the data included student testimonials, reviews of services to isolate and target language and meaning conveyed by the institution only, information or

resources targeted for parents, graduate students, or faculty. Web pages that were excluded include any information for faculty or instructional support or content specifically for graduate students.

Data collection was undertaken during the COVID-19 pandemic and each institution reviewed included information pertaining to the way in which the office continued or suspended programming during the pandemic. Content that described the institutional and office's pandemic response was excluded from data collection as it was relevant for a temporal, unprecedented circumstance and not relevant to the purpose of this study design.

### 3.2.3. Content coding

The coding rule book for this study stemmed from shared guidelines and best practices outlined in the revised (2020) Association on Higher Education and Disability (AHEAD)'s Program Domains, Standards and Performance Indicators and UDL. As noted in the literature review, this document serves as a national (U.S.) guide for student disability professionals and offices to expand "the vision of disability equity at the postsecondary level" (AHEAD, 2021). AHEAD Standards provide aspirational goals, language, and concepts for professionals to address barriers for people with disabilities in university and college settings. Specifically, three domains from the AHEAD document were used as a basis for developing the coding framework applied to selected institutions' web content:

- Domain 1: Leadership and collaboration for access and equity
- Domain 2: Education and advocacy across campus regarding inclusive practices

- Domain 3: Services, strategies and accommodations to mitigate barriers

AHEAD's Domains 4 and 5 focus primarily on operations and professional development and are less relevant to this study's context and purpose. Domain 1 consists of four standards with 24 performance indicators. Domain 2 includes three standards and 19 performance indicators. Domain 3 includes 3 standards and 18 performance indicators. There was an initial review to find common, consistent words that were included in the domains identified by a word count feature; for example, the term "accommodation(s)" is present 16 times collectively within the first three domains. These words then served as initial themes to identify micro-codes to formulate the code book. Table 3 and 4 identifies the recurring words in the 2020 AHEAD Domains, Standards, and Performance Indicators which informed initial code words for this content analysis.

**Table 3**

*Recurring Words in AHEAD Domains, Standards, and Performance Indicators (2020)*

| Recurring Word | Number of Times |
|---|---|
| Equity | 8 |
| Technology | 10 |
| Policies | 8 |
| Responsibility | 4 |
| Accessibility | 6 |
| Accommodations | 16 |
| **Representation*** | **4** |
| **Interactive Process*** | **2** |

**Denotes added in second coding phase*

**Table 4**

*Themes and Micro-codes, Derived from AHEAD Standards Recurring Words*

| Themes | Micro-Codes |
|---|---|
| Accommodations | Housing Accommodations<br>Reasonable Accommodations<br>Accommodations Process |
| Technology | Assistive Technology<br>Assistive Software<br>Tech Support |
| Equity | Scholarships |
| Policies | Academic Policies<br>Accommodations Process<br>Staffing/Human Resources<br>Legal Compliance |
| Responsibility | Student Responsibility<br>Institution Responsibility<br>Compliance<br>Grievance |
| Accessibility | Co-curricular spaces<br>Physical access<br>Assistive Technology<br>Academic Skill Development<br>Transitional Support<br>Post-Graduation Support |

These words were used in Phase I (May 2021) in the initial review of the webpage review. Each reviewed webpage was saved as a PDF and uploaded into NVIVO for data storage. Through this inductive process, it was noted that there was recurring language present on several web pages that is also present in the Domains, Standards and Performance Indicators. Data collection and analysis took place in two phases: Phase 1 took place between May – July 2021 and included a review of strict application of codes, through an inductive process a second phase was needed to expand other themes; Phase 2 took place July 2021-September 2021which returned to review the AHEAD Domains, Standards, and Performance Indicators, and resulted in new coding categories such as

"interactive process" and "disability representation." Phase 2 was conducted with these expanded themes on the same webpages previously reviewed in Phase 1. The new codes were added to NVIVO and each webpage was reviewed a second time to capture new data pertaining to these new codes (interactive process, disability representation). A third phase was conducted to comb through and ensure consistency in the identification and classification of codes and themes. These phases generated Table 5, the Content Analysis Codebook.

**Table 5**

*Content Analysis Codebook*

| Code | Definition | Example |
|---|---|---|
| Housing Accommodations | Resources for students with disabilities to access and participate in on-campus housing, and related events and programming | Elevators, accessible bathrooms, entrance ramps |
| Assistive Technology and Support | Technical software or programs, or physical spaces for students to access or convert course material in alternative formats | LiveScribe pen, technology labs, document converters, braille readers |
| Academic Skill Development | Programs and services to help students cultivate time management, organizational skills | Peer tutoring programming, counseling services, academic skill workshops |
| Scholarships | Financial assistance specifically earmarked for students with disabilities to help defray educational costs | Specific scholarships |
| Staffing/Human Resources | The allocation of staff for disability services | Number of specialists, number of ASL interpreters |
| Reasonable Accommodations | adjustment made in a system to accommodate or make fair the same system for an individual based on a proven need | Additional test taking time, flexibility in attendance, note taking, audio recording |
| Physical Access | Physical design to promote the inclusion for all | Interactive campus maps, accessible transportation |
| Co-curricular spaces | Physical on-campus spaces for students with disabilities to connect, learn, and advocate about disability needs | Disability and Deaf Cultural Centers, adaptive sports, diversity events |
| Student Responsibility | The responsibilities students with disabilities possess in being informed about accommodation process and support, advocate for needs, and follow academic policies and procedures | Staying in touch with specialists regarding accommodations, informing faculty of accommodations, keeping documentation current with specialist |

| | | |
|---|---|---|
| Academic Policies and Procedures | Legal, federal, or institutional rules and processes to inform and guide the accommodation services and resourcing for students with disabilities. | Grievance and Complaint procedures, accommodation request process |
| Transitional Support | Guidance, services and resources for students with disabilities in transition | Tips for job searching and interviewing for students with disabilities; orientations for incoming students |
| Interactive Process*<br>*Added during Phase 2 of inductive process* | A collaborative effort among the student and specialist to discuss needs for student to equally participate in academic and co-curricular activities | Protocols for students to adapt or adjust accommodations due to emergent needs, review of student narratives as part of documentation process |
| Disability Representation*<br>*Added during Phase 2 of inductive process* | Presence of physical or virtual (media) representation of persons with disability in mainstream culture, policies, educational practices and others | Podcasts highlighting intersectionality of identities, awareness activities across campus |

### 3.2.4. Rubric

The analytic process was undertaken in three phases. During phase 1, I undertook an initial review of Student Disability Services web pages saved and categorized in NVIVO to form emerging themes and patterns. The recurring themes generated a rubric, which was used to evaluate if the Disability Services Offices do not meet, meet, or exceed the AHEAD Performance Indicators. The rubric was created by AHEAD Performance Indicators that aligned with the established codes. For example, AHEAD Indicators 2.3.3 and 2.3.4 provide guidance for legal compliance best practices. Three evaluative tiers were created, including: 1) Doesn't Meet the AHEAD Standards; 2) Meets AHEAD Standards; and 3) Exceeds AHEAD Standards.

**Doesn't Meet** the standards criteria included elements outlined in the AHEAD Domains, Standards and Performance Indicators as not evident in the retrieved web content; **Meets** the standard included criteria that is outlined in the AHEAD guidance; and **Exceeds** included aspirational elements derived from AHEAD literature and UDL best practices. This process helped to frame the rest of the rubric to include themes of

accommodations, accessibility, academic support, equity, transitional support, accessible physical space, and assistive technology. Another review of the same collected content occurred during the second phase in August and September to ensure consistency in coding. Table 6 refers to the evaluative rubric used when reviewing disability services offices' webpages.

**Table 6**

*Evaluative Rubric for Disability Services Office Webpages*

| | **AHEAD Standards/Indicators** | **Doesn't Meet** | **Meets** | **Exceeds** |
|---|---|---|---|---|
| Legal Compliance | 2.3.3 Ensure information on disability services (e.g., documentation requirements, statement regarding self-disclosure, processes for requesting and using services, individuals responsible for access) is on the institution's website.<br><br>2.3.4 Provide disability related grievance and complaint procedures on the institution's website. | No evidence of information pertaining to services provided by Office; does not provide grievance and complaint procedures on institution's website. | Clearly outlines legal rights and responsibilities of student and Office, including self-disclosure, processes for requesting and using services.<br><br>Grievance and complaint procedures clearly available and accessible on webpage. | Provides an interactive process for students to understand their legal rights and responsibilities, including self-disclosure, processes for requesting and using and renewing services.<br><br>Offers students to connect with a point staff person for additional questions, or if emergent, new needs arise which requires a review of accommodations and services.<br><br>Provides accessible grievance and complaint procedures on website. |
| Reasonable Accommodations | 3.1.1 Determine individual student rights to accommodation through a non burdensome and ongoing interactive process that considers student narrative and appropriate, relevant documentation of disability.<br><br>3.1.3 Determine whether requested accommodations are reasonable.<br><br>3.3.2 Follow up with campus units when individuals report a lack of access or | Evidence of brief reasonable accommodations process, including form.<br><br>Does not outline the process and qualifications for HOW accommodations are reasonable.<br><br>No evidence of grievance procedure or process for students to renew accommodations status. | Evidence of outlined accommodations process, including form and indicates how student narrative fits within the decision-making process.<br><br>Clarifies the process and qualifications for HOW accommodations are reasonable.<br><br>Provides information on grievance procedure or process for students to renew accommodations status. | Evidence of outlined accommodations request and review process, including how student narrative is supported and considered within the decision-making process.<br><br>Clarifies the process and qualification for HOW accommodations are deemed reasonable.<br><br>Actively encourages students to review and submit grievance |

| | | | | |
|---|---|---|---|---|
| | unavailable/ineffective accommodations. | | | procedure or process for emergent, new needs. |
| Equity | 4.1.1 Develop and disseminate a program mission statement and philosophy that is aligned with the mission of the institution and with the values of the profession, including accessibility, equity, and diversity.<br><br>2.3.1 Encourage the inclusion of disability in the institutional statement of nondiscrimination.<br><br>2.1.3 Provide information and training to campus units (e.g., residential life, facilities, academic support, library, information services, human resources) to increase understanding of accessibility, disability and their role and responsibilities in designing inclusive and accessible services. | No evidence of a mission statement and office philosophy that is aligned to values of accessibility, equity and diversity.<br><br>OR<br><br>Evidence of mission statement but does not include institutional statement of nondiscrimination | Evidence of mission statement and office philosophy that is aligned to values of accessibility, equity, and diversity.<br><br>Evidence of institutional statement of nondiscrimination | Provides elevated mission statement and overarching goals to provide accessibility, equity, and diversity through student voice and diverse representation.<br><br>Provides and builds upon institutional statement of nondiscrimination, and supports student activism, voice and engagement in decision making processes. |
| Accessibility of Physical Space and Technology | 2.3.5 Provide information about the availability of assistive technology on campus including the location of specific software and hardware<br><br>2.2.4 Partner with campus instructional technology (IT) personnel to train all members of the campus community in the preparation of accessible materials.<br><br>2.1.4 Advise campus personnel (e.g., information services, human resources, marketing and communications, academic departments) regarding the institution's obligation to procure and implement only accessible technologies and applications. | Minimal evidence of assistive technology services/product. Offers referrals or external links to technology programs but no direct campus related resources.<br><br>Limited evidence of accessible/ inclusion design of physical spaces. | Evidence of Assistive Technology accessibility; may include a Technology lab and have designated personnel to staff space. | Evidence of Assistive Technology accessibility; including technology lab and designated personnel to staff space. Resources are provided to students for reduced cost or free.<br><br>Evidence of continually enhancing accessible/ Inclusive design of physical spaces. Provides accessible campus maps and locations of physically accessible campus sites. |
| Academic Support | 2.1.7 Advise campus student affairs regarding the intersection between disability and campus practices (e.g., student discipline, campus behavioral intervention team, student activities) that may require modification.<br><br>3.2.6 Consult with department representatives | Little to no additional academic support beyond reasonable accommodations (mandated by ADA and Section 504).<br><br>Little to no presence of cross-departmental interaction and collaboration to support accessible | Some evidence of collaboration among other campus departments.<br><br>Inclusion of accessibility practices related to opportunities beyond classroom, including internships, field placements, and other | Enhancement of support programs to engage student participation.<br><br>Inclusion of accessibility practices related to opportunities beyond classroom, including internships, field placements, and |

| | | | | |
|---|---|---|---|---|
| | and community agency personnel to ensure accessibility in internships, field placements, and other community-based academic experiences.<br><br>3.1.10 Refer students to campus and community resources (e.g., counseling services, academic support, multicultural centers, vocational rehabilitation) as needed.<br><br>2.3.2 Distribute information on availability of services via relevant campus publications (catalogs, programmatic materials, websites, etc.). | campus practices beyond the Office | community based academic experiences. | other community based academic experiences.<br><br>Support programs offered beyond reasonable accommodations to cultivate and increase academic skills and development and improve equity and disability representation throughout the institution |
| Prospective Student/Family Information | | Provides little to no information on legal responsibilities and transition to college (IDEA to ADA). Does not have a designated webpage for prospective student/family information | Evidence of specific prospective student/family information webpage, including legal responsibilities of student. May also include accommodation review process and timeline | Notes proactive outreach to prospective students and families; demonstrates interactive process and ability to address individual questions<br><br>Designated webpage targeting Prospective student information<br><br>Shares information on legal responsibilities and transition to college (IDEA to ADA) as well as programs and additional support beyond reasonable accommodations |
| Additional Support-Post-College Transition and Scholarships | | No evidence of language consisting of disability-related/specific scholarships<br><br>Offer few or no resources to prepare students with disabilities beyond college/academic setting | Scholarship/Financial assistance evident for students with disabilities. Outlines specific qualifications and application process for scholarships | Scholarship and Financial assistance evident for students with disabilities.<br><br>Outlines specific qualifications and application process for scholarships.<br><br>Designates a staff member as contact person for individual, interactive engagement with students |

### 3.3. Data Analysis

There were three phases of analysis once the content was organized by the codes outlined in the codebook and the rubric was established. The first phase included an inquiry of information that formed brief overview summaries of each disability services office organizational structure, staffing resources, and available services. A check sheet was created and used in review for each disability services office to create these summaries. Due to the varied web mapping and levels of information shared on each website, some items on the checklist were not identifiable for some institutions. Some institutions had more AHEAD members, according to the AHEAD directory, than specialists, indicating that there could be professionals and instructors outside of the Disability Services Office that also has AHEAD membership. These brief summaries created an overall sense of where the offices were housed, what services were available and shared in the websites, and how office and position titles were named.

This step also helped to refine the code book, and new codes were added, including staffing/human resources and interactive processes. As these new codes were formed, there was a review of the rubric and the overview summaries to ensure consistency. The AHEAD Performance Indicators were continually consulted when determining additional codes to ensure alignment of language and definition. Once the case summaries were written, information captured from the checklist was used to form an organizational typology (Table 3). Lastly, the established rubric was used for a third round of analysis. There were two phases of reviewing each Disability Services Office information with the rubric, once in July (Phase 1) and another in late August (Phase 2) to calibrate the analysis. It is possible during this time that content may have been

updated, changed or altered. *Intracoder Reliability* is a method used by researchers to establish consistency within a coder's own [coding] process (Wimmer & Dominick, 2011). Unlike intercoder reliability which requires multiple coders, intracoder reliability is established with a sole coder. To test for a consistent coding process, the coder usually codes a subset of the text at a certain time and then codes the same content again later, when the content from the first coding is usually forgotten (Wimmer & Dominick, 2011). Intra-coder reliability was important in this study given the scope and resources available and also it helped to estimate the relative consistency of the coder's own judgments of the same content at different time.

### 3.4. Limitations of Study

Though there are advantages of content analysis such as being a method that is readily understood and provides a closeness to the data (Columbia Public Health, 2020), it does present several limitations. It can be time consuming. It is also inherently reductive, particularly with complex and multiple texts.

Limitations of this study include the inability for inter-rater reliability and was conducted by one individual researcher. Though the included content was reviewed fully three separate times to identify and capture recurring themes, language and concepts, there is less reliability for reproduction of results. As there were multiple reviews of content within a span of three months, it is possible that web content could have been updated and content previously coded then removed. Content analysis can also be strengthened in combination with other qualitative or quantitative methods, such as interviews and case studies, which was not conducted for the purpose of this study. The

purposive sampling is not generalizable and is not representative of all public universities and their disability support services.

This method also limits the content of currently visible information presented on websites, and does not provide a dimensional review of the quality or effectiveness of support or programming for undergraduate students with disabilities. It is also possible that the web pages do not fully represent all of the services and supports that are available to students.

# CHAPTER 4: STUDY FINDINGS

This study's findings are presented in three parts: 1) brief summaries to characterize each of the ten institutions' disability services offices, including a snapshot of staff, programs and services, as indicated on the website; 2) a discussion of findings regarding the organizational structure, affiliation with a research center or disability cultural center, and emphases on transitional language for prospective students as well as career and post-graduation resources; and 3) a discussion of how institutions do not meet, meet, or exceed AHEAD performance indicators based on the established rubric.

## 4.1 Case Summaries

Each institution's disability services web pages provide language to inform brief snapshots of the landscape, staffing, and services/programs available for students with disabilities, as publicly visible. Overall, there are many varying qualities of offered programs, technology, resource support, and organizational structure. Data points vary based on what the offices chose to emphasize and highlight. For example, though all offices provided a list of staff members, the ways in which staff were assigned to students differed. Position titles are also inconsistent. Organizationally, disability services were housed or grouped with different programs across the selected institutions, and the names of the offices were also different. The following section includes a brief summary of each program.

*University of Maryland*

University of Maryland's office is called the Accessibility and Disability Service (ADS) and is housed within the institution's Counseling Center. Other services and

offices within the Counseling Center include mental health counseling, wellness workshops and academic skills development, and community outreach programs. ADS' mission is:

> *"Committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefit of services, programs, or activities at the University. ADS provides reasonable accommodations to qualified individuals to ensure equal access to services, programs, and activities sponsored by the University." (UMD Mission Statement)*

According to the Contact Us webpage, the ADS includes three ADS Counselors and two Disability Counselors; there was no clarifying language that differentiated these two titles on the web page. The ADS also includes a Deaf and Hard of Hearing Service which includes advocating for academic and non-academic (residential housing) accommodations, captioning services, and providing assistive learning devices. The ADS also oversees an Adaptive Technology Lab within the library, which is a space used to provide, train, and problem-solve assistive technology concerns and issues. Students with appropriately documented disabilities can also utilize this space to take technology-assisted exams. Additionally, an alternative text service helps students convert course material into formats that are more accessible. This may include converting textbooks and other reading materials into electronic format, braille, and enlarged print. The service will also save files in an appropriate format for the information remaining accessible to individual students.

*University of Connecticut*

The University of Connecticut's office is called the Center for Students with Disabilities and is housed within the Division of Student Affairs. The mission of the Center is:

> *"To enhance this experience for students with disabilities. Our goal is to ensure a comprehensively accessible University experience where individuals with disabilities have the same access to programs, opportunities and activities as all others. The Center is also committed to promoting access and awareness as a resource to all members of the community."*

On the Contact Us web page, there were four disability services professionals listed, with five American Sign Language interpreters. The center also outlines its origins and history publicly on the About Us webpage. The center began in 1967 and was originally named the Program for Physically Handicapped under Public Health Services, with the goal to improve access to the University for students with disabilities. Such improvements focused on physical space, with comprehensive reviews of building plans in student activity and academic spaces. The office's name changed in 1992, and in 1999, New Mobility Magazine voted the University of Connecticut as one of the Top Ten Disability-Friendly Colleges. The space currently serves more than 1,100 students.

*University of California, Los Angeles (UCLA)*

UCLA's office is called the Center for Accessible Education and indicates services for both undergraduate and graduate students. The center describes its role as, "a central resource on disability-related information for students, procedures, and services for the University student community. The Center for Accessible Education provides

expertise in determining and implementing appropriate and reasonable accommodations for academics and housing." The website notes that the center serves "thousands of undergraduate, graduate and professional studies students to identify reasonably appropriate accommodations for academic programs". There are currently a total of four disability specialists listed on the website. The center mostly drives new information, updates, and best practices to students through its periodic e-newsletter. For Fall 2021, the newsletter primarily consisted of FAQs related to remote learning due to the COVID-19 pandemic.

There is a section that outlines the accommodation seeking process, ways in which students may connect with a disability specialist, how students may file a concern for accessibility and technology issues, and tips to adjust computer screen and light settings if students are struggling with increased screen time.

UCLA also sponsors the National Arts and Disability Center (NADC) through the Tarjan Center. The center is the national information dissemination, technical assistance and referral center specializing in the field of arts and disability. Its community engagement and presence serve to advance artists with disabilities and promote broader and more enriching accessibility to the arts.

*University of Washington*

The University of Washington's office is called the Disability Resources for Students (DRS), and is a service unit within the institution's Division of Student Life. DRS is dedicated to ensuring access and inclusion for undergraduate, graduate, and professional students with disabilities and its mission statement notes that the office is:

*"Embedded in the core values of the University of Washington is a commitment to ensuring access to a quality higher education experience for a diverse student population. Disability Resources for Students (DRS) recognizes disability as an aspect of diversity that is integral to society and to our campus community. DRS serves as a partner in fostering an inclusive and equitable environment for all University of Washington students."*

The programs have been provided for more than 39 years and currently serves more than 2,800 students. There are 5 access coordinators for current students listed on the webpage, as well as 1 coordinator designated to work with prospective students and current students with emergent needs for immediate support. Access coordination is organized by the institution's specific schools and colleges: 1) School of Dentistry, Medicine, Nursing, Pharmacy, Public Health and Social Work; 2) Athletics and Housing, Business, Built Environments, Education, Engineering, School of Public Affairs, Information School, Law; 3) College of Arts and Sciences (last names A-G); 4) College of Arts and Sciences (last names H-O); 5) College of Arts and Sciences (last names P-Z), College of the Environment. The University of Washington also provides affiliated support in its Center for Disability Policy Research, housed within the School of Public Health. The Disability and Deaf Cultural Center (D Center) for Students, which offers a space for students to connect and engage with each other, have a quiet workspace, and enjoy a library with more than 200 books on disability and deaf research, and offers a Disability Studies academic program in the College of Arts and Sciences.

Furthermore, The University of Washington also houses the Disabilities, Opportunities, Internetworking and Technology (DO-IT) Center, which is a leading U.S. resource in

respect to Universal Design for Learning research, STEM access, best practices programming and community outreach, and educational awareness of learning disabilities. The DO-IT Center is "dedicated to empowering people with disabilities through technology and education, and promotes awareness and accessibility-in the classroom and workplace-to maximize the potential of individuals with disabilities and make communities more vibrant, diverse, and inclusive (DO-IT, 2021, p. 1).

*University of Michigan-Ann Arbor*

University of Michigan-Ann Arbor's office is called Services for Students with Disabilities (SSD) and is housed within the Division of Student Life. SSD's mission reads:

> *"Embedded in the strategic plan of the University of Michigan is a commitment to ensure equal opportunity for all individuals. Services for Students with Disabilities (SSD) recognizes disability as an integral part of diversity and is committed to creating an inclusive and equitable educational environment for disabled students. SSD is a partner to students, faculty, and staff in the pursuit to develop leaders and citizens who will challenge the present and enrich the future."*

There are six coordinators listed on the webpage. The website notes that SSD offers Academic Support Programming (ASP) to help students connect with the office to make the most out of their academic experience. In addition to academic accommodations, ASP also provides academic coaching, workshops and other educational activities focused on student development. Such workshops focused specifically on building academic skills, strengthening executive functioning, and

learning strategies. The ASP initiates community building among "neurodiverse students and serves as an opportunity to elevate engagement, self-efficacy, motivation and academic performance." The programs also support students in finding additional campus resources and ways to further engage in academic and extracurricular ways. Examples include peer tutoring and academic support, academic coaching, and the Adaptive Sports and Paratransit Services.

*University of New Mexico*

The University of New Mexico's office is called the Accessibility Resource Center (ARC) and is part of Student Services, housed within the Division of Student Affairs. The mission states that ARC:

> *"Recognizes individuals with disabilities as an integral part of a diverse community and is committed to the provision of comprehensive resources to the University community (faculty, staff, and student) in order to create equitable, inclusive, and practical learning environments."*

Broadly, Student Services includes 14 departments, including ARC, The African American Student Services; Air Force ROTC, Army ROTC; American Indian Student Services; Career Services; College Enrichment and Outreach Programs; Community Engagement Center; El Centro de la Raza; Mentoring Institute; Naval ROTC; Recreational Services; Student Publications; Veteran and Military Resource Center; and the Women's Resource Center. There are three accommodations specialists listed for the main campus, as well as three staff interpreters. Each satellite campus has its own disability services office. The School of Medicine and the School of Law have an additional specialist, as well as the Branch Campuses located in Gallup, Los Alamos,

Taos, and Valencia. The center's website provides a brief overview of its history, and the ways in which it has evolved in the last 50 years. Established in 1970, it was called Special Services, the same year that a graduate student founded the Disabled Students Organization.

*University of Virginia*

The University of Virginia's office is called the Student Disability Access Center (SDAC) and is housed within the Student Health and Wellness Department. SDAC's mission is:

> *"To support the University's commitment to accessible education. For UVA's students with disabilities, we encourage self-determination and independence via accommodations, education, consultation, and advocacy with the goal of building an equitable academic experience."*

Other programs within Student Health include Counseling and Psychological Services; Medical Services; and Health Promotion and Wellbeing. There are two accessibility specialists included on the webpage. The SDAC indicates that it provides services to two groups of students: "Those who have been previously diagnosed with a disability; and those who have never been diagnosed, but find themselves struggling academically, and seek advice and support." SDAC provides information on assistive technology such as read and write literacy software, note-taking technology, and a new technology partner with Sensus Access, a program that provides digital conversion to accessible media.

*Georgia Institute for Technology*

The Georgia Institute for Technology office is called the Office of Disability Services and is housed within Student Services. Its mission includes its purpose to:

> *"Improve the education experience of students with disabilities and to enhance the understanding and support within the Institute through equitable access, accommodations, and the provision of programs and services."*

The Contact Us web page indicated that there are three administrative professionals and one disability services provider. The website does not have differentiating information about these different roles. The office emphasizes its core responsibility to ensure that the Institute "maintains its compliance with the federal regulations that protect the rights of individuals with disabilities in the educational environment. The office determines and coordinates reasonable accommodations for students with disabilities." The Office of Disability Services also offers a testing center, a space used for students to take proctored exams. Some accommodations that students may utilize in the testing center include: extended time; quiet, low-distraction test area; paused test breaks; and use of a calculator. Students need to schedule and grant permission ahead of the time of the exam, and must have the appropriate accommodations to utilize the space.

*Pennsylvania State University-University Park*

The Pennsylvania State University office is called Student Disability Resources (SDR) and is housed within the Office of the Vice Provost's Office for Educational Equity. SDR is committed to:

> *"Providing a welcoming, encouraging, and empowering environment for students with disabilities to ensure equal access, full participation and reasonable accommodations for their academic pursuits. Student Disability Resources is responsible for coordinating support services, reasonable academic accommodations, and promoting disability awareness in the university community."*

Other programs and units include the Multicultural Resource Center; Office of Veterans Programs; Office of Scholars Programs; Talent Search Programs; TRIO Training Academy; and Upward Bound Programs. There are five disability specialists listed for the University Park campus; each Penn State campus has a disability services office specialized for each location. The same accommodations are offered at all campuses though implementation may vary slightly. The SDR provides information on not-taking and exam accommodations, housing accommodations, and accessible transportation and parking.

The SDR also hosts "Diversability Awareness Month," which is a month of activities and events to promote awareness and celebrate the various abilities and talents of people with disabilities. It promotes an atmosphere where individuals are comfortable discussing and exploring questions about accessibility, equality, and inclusion for people with disabilities. The SDR also hosts scholarships for students and has a designated scholarship coordinator in the office to help administer the selection and awarding processes.

*Florida State University*

Florida State University's Office of Accessibility Services is housed within the

Department for Student Transitions and Support. The Office:

> *"Collaborate(s) with and empower Florida State University students to create an accessible and inclusive environment by identifying, minimizing, and where possible, eliminating barriers to equal access while encouraging equal participation for students with disabilities."*

The department also includes services such as case management support, investigations and assessment, New Student and Family Programs, the Victim Advocate Program, and Withdrawal Services. There are three student accessibility specialists listed, one accessible technology coordinator, one exam coordinator, and one transportation services coordinator. The Office also shares the Access FSU Podcast, which provides episodes that explore intersectionality of identities as well as academic skills building tips. Episode titles include: Find the ME in Social Media, Print Month Roundtable Discussion; Gender, Sexual Health, and Disability; and Take Time to Make Time (Time Management). Florida State University also sponsors the Florida Learning Disabilities Research Center, which is one of three federally funded projects in the United States. The two other centers are located in The Colorado Learning Disabilities Research Center at University of Colorado-Boulder, and The Texas Center for Learning Disabilities at the University of Houston. The research center focuses its work on "broadening the scientific and practical understanding of learning disabilities and comorbid conditions."

### 4.2. Findings for Organizational Typology of Student Disability Services

A second scan of the studied institutions and their Disability Services Offices website information provided information to shape an inform an organizational typology.

A typology is the study of or classification based on types or categories (Merriam-Webster, 2021), and can be a helpful tool to construct understanding and classification of organizational structure and resources. Table 7 showcases how institutions differ in where they house and organize disability services, ranging from the counseling center, student health and wellness, to divisions and departments of student affairs, to an office of educational equity. Some disability services offices are lumped in with services supporting particular populations, such as veteran services, cultural programs and equity initiatives while others are a standalone service. Only UCLA and the University of Washington have affiliated disability cultural centers; UCLA houses a project through the Tarjan Center, a university center for excellence in disabilities education, research and service. The project is the National Arts and Disability Center which "promotes the inclusion of audiences and artists with disabilities into all facets of the arts community" (NADC, 2021). The University of Washington sponsors the Disability and Deaf Cultural Center for students to connect, engage, and study. This data point is not particularly surprising as disability literature notes that though the first Disability Cultural Centers first appeared on U.S. college campuses in the mid-1990s, they still remain in the low double digits across the country (Evans et al., 2017).

Additionally, only two selected universities include a disability research center, which elevates AHEAD's Standard and Performance Indicator 1.4.2, "encourage collaboration and campus level engagement among diverse sources of disability knowledge, including offices, research centers, and scholars with expertise in disability services" (AHEAD, 2020, p. 1). Examples include the University of Washington's Do-IT, which provides resources and promotes application of universal design in learning

environments and physical spaces, as well as "increase the success of people with disabilities in challenging academic programs and careers" (DO-IT, 2021). Florida State University houses one of three federally funded learning disability research centers in the United States; the other two are located at the University of Colorado, Boulder and University of Houston. Learning Disability Research Centers investigate "basic and translational studies to elucidate the cognitive, linguistic, neurobiological, and genetic mechanisms of reaching, writing, and mathematics" (NIH, 2021).

Disability Services programs also varied in the amount of support emphasized on their web pages for prospective students and families. Based on this study's rubric, some met or exceeded transitional support and resources. All but one program offered specific language for prospective students and their families, clearly outlining the shift in responsibility and advocacy on the student's part to negotiate services and accommodations. For those indicating as "meeting" the standards of providing transitional information for prospective students, there was evidence of a designated web page specifically targeting the prospective student population. This appeared to be a relatively consistent element across the studied disability services offices.

Those exceeding expectations provided additional support for prospective students. For example, the University of Washington designates a full-time staff member as a point person for prospective students to engage with. It also provides a specific orientation during the summer before arrival to campus to provide more tailored support and information. There is also differentiation in communication of support for post-graduation success, including job search materials specifically for those with disabilities, and scholarships. There wasn't a program which exceeded standards related to

**Table 7**

*Organizational Typology of Disability Services Offices*

| Theme/Metric | Selected Universities for Study | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | University of Maryland | University of Connecticut | University of California -L.A. | University of Washington | University of Michigan-Ann Arbor | University of New Mexico | University of Virginia | Georgia Institute of Technology | Pennsylvania State University | Florida State University |
| Organizational Structure for Disability Services Offices | UMD Counseling Center | Division of Student Affairs | Center for Accessible Education | Division of Student Life | Division of Student Life | Division of Student Affairs | Student Health and Wellness | Student Services | Office of Educational Equity | Department of Student Support and Transitions Division of Student Affairs |
| Affiliated Disability Cultural Center* | No | No | Yes, National Arts and Disability Center | No | No | No | No | No | No | No |
| Affiliated Disability Research Center | No | No | No | Yes (DO-IT) | No | No | No | No | No | Yes (NIH Multidisciplinary Learning Disabilities Center) |
| Number of Disability Specialists | 5 | 4 | 4 | 5 | 6 | 3 | 2 | 4 | 5 | 4 |

**Similar to other identity centers, disability cultural centers aim to create safer spaces for those who share marginalized identities. These cultural centers aim to develop pride in disability identity, share disability culture, and educate the broader higher education institution community. Disability cultural centers began to emerge in the mid-90s.*

additional scholarships or providing interactive opportunities for students to connect with career resources following graduation. This may be a place for further inventory and consideration of best practices and resource delivery for students, particularly as research indicates that such resourcing and support can increase equity outcomes (Vincent & Chiwadire, 2019).

## 4.3 Findings for Evaluative Typology of Disability Services

This section explores the findings outlined in Table 4, which provides a visual comparison of institutions either meeting or exceeding standards as described in the rubric. Overall, all programs share some common, aspirational language as noted in the AHEAD Domains and Performance Indicators in their mission statements; however, how often or the ways in which these themes showed up among webpages ranged. This section contextualizes how themes such as legal compliance, accommodations, accessibility, assistive technology, and advocacy and equity showed up in this research.

### 4.3.1. Legal Compliance, Student Responsibility, Accommodations

*Meeting Standards*

All institutions incorporated legal compliance in a significant amount of description related to ADA and Section 504 laws. As noted in the literature review, such information is required by federal law. Institutions also denoted the transition of responsibility to the student once they enroll in a post-secondary institution, whether this showed up in a comparison table explaining the different legal responsibilities among IDEA and ADA, or through paragraphs and FAQs. One office specifically included legal compliance directly in its mission statement: *"...maintain compliance with the federal*

*regulations that protect the right of individuals with disabilities."* Findings showed that institutions met AHEAD Performance Indicators 2.3.3 and 2.3.4 in providing grievance and complaint procedures, as well as documentation requirements, a statement on self-disclosure, and processes for requesting and utilizing services.

*Institutions Exceeding Standards*

Institutions who exceeded standards devoted a full webpage to the differences of accommodation process with IDEA 2004 (governing K-12 accommodations and support) and Section 504 (legal obligations for post-secondary institutions). This included an extensive comparison chart including general purpose, individuals covered by each law, program access, evaluation, and compliance and enforcement. These institutions also educated and emphasized the student responsibility and expectations in the way in which students need to seek out and self-advocate for services and accommodations. One institution outlined:

> *"Students need to be well informed about changes in their rights and responsibilities as well as the rights and responsibilities afforded by the university. A well-informed student will enjoy the benefits of post-secondary education experience without confusion or delay."*

In some cases, other civil rights laws were included, such as Title IX of the Education Amendments of 1972. This was referenced particularly for students who may be pregnant or parenting:

> *"[Title IX] is a Federal civil rights law that prohibits discrimination on the basis of sex-including pregnancy and parental status in educational programs*

*and activities. If you need accommodations, please contact the Title IX Coordinator."*

**Table 8:**

*Evaluative Typology of Disability Services Offices*

| | **University of Maryland** | **University of Connecticut** | **University of California-L.A.** | **University of Washington** | **University of Michigan-Ann Arbor** | **University of New Mexico** | **University of Virginia** | **Georgia Institute of Technology** | **Pennsylvania State University** | **Florida State University** |
|---|---|---|---|---|---|---|---|---|---|---|
| Legal Compliance, Student Responsibility | Meets | Exceeds | Meets | Exceeds | Meets | Exceeds | Meets | Meets | Meets | Meets |
| Accommoda-tions | Meets | Exceeds | Meets | Exceeds | Meets | Exceeds | Meets | Meets | Exceeds | Exceeds |
| Accessibility and Academic Support | Exceeds | Exceeds | Exceeds | Exceeds | Meets | Exceeds | Meets | Meets | Meets | Exceeds |
| Advocacy and Equity | Meets | Meets | Meets | Exceeds | Exceeds | Meets | Meets | Meets | Exceeds | Meets |
| Assistive Technology | Meets | Exceeds | Meets | Exceeds | Exceeds | Meets | Meets | Does Not Meet | Meets | Exceeds |

These student disability services offices' emphasized the legality of its role and responsibility, and clearly outlined expectations and outline accommodations that do not ensure student success. Students are responsible for learning subject knowledge, complete essential requirements of courses, and meet the same demands required of all students. Offices included notices of non-discrimination and Equal Opportunity. Accommodation and accessibility language was often utilized while explaining legal compliance and responsibilities held by students and institutions.

Legal compliance language appeared often in the websites pertaining to undergraduate students, and if a designated Prospective Student page was available, the content was directed towards educating and clarifying the differing levels of support during the transition from secondary education to post-secondary education. Language emphasized student responsibility and the need for self-advocacy.

### 4.3.2. Accessibility and Academic Support

*Meeting Standards*

Accessibility showed up in the way in which the offices were named, (e.g., Center for Accessible Education, Accessibility Resource Center, and Accessibility and Disability Services) and whether they were housed in divisions of student affairs or the department of student support and transitions. The frequency of language such as accessibility and accommodations were similar. Mission statements also evidenced more language pertaining to access and equity. Types of accommodations are listed as well as information on how to appeal, update or gain additional access to accommodations. One

institution noted that students may face emergent needs or encounter new barriers during their time at the institution:

> *"Accommodations are approved initially by staff based on the needs and access barriers the student is encountering at that time. However, [we] recognize that needs and barriers can change and/or evolve as a student progresses through an academic program. If a student encounters new barriers, emergent needs, or seeks to modify current accommodations, they can request additional accommodations through myDRS."*

In addition to common reasonable accommodations for academic access, programs included information, tips, and links to external resources to aid in job seeking and employment. Such web pages inform students with best practices and strategies with how to disclose a learning disability during the job seeking and interviewing processes. The evidence of this language suggests programs view their roles to help prepare and bridge the connection with academic experience and career development.

*Exceeding Standards*

Offices exceeding standards provided more academic support such as peer tutoring, academic skill building workshops, and other programs. Often housed within the FAQ sections, offices that exceeded academic support and accessibility also included information about implementing reasonable accommodations in field placements and internships. This also showed up in job resources and institutional scholarship opportunities for students with disabilities. In a similar vein, institutional financial assistance for students with disabilities were available through distinct scholarships. With

the increasing cost of attendance, scholarships earmarked specifically for students help to defray college going expenses, as well as signals a fiduciary institutional commitment to elevating access and support. Offices provided campus and off campus resources and referrals easily as well, and encouraged students to reach out to the office for additional support.

### 4.3.3. Assistive Technology and Physical Space

Disability Services Offices presented language that focused on inclusive design incorporating fuller detail and resources pertaining to assistive technology as well as the physical space. These institutions devoted webpages for Assistive Technology or included accommodations related to physical space and transportation around the university.

*Meeting Standards*

Some offices outlined specific Assistive Technology labs that were accessible on all computers, and outlined numerous available programs. In addition to providing a link to downloadable software, these web pages provided descriptions of how a student may benefit from the tools. One institution connected the presence of Assistive Technology to establishing a more accessible and equitable experience: *"Assistive Technology tools allow disabled students to have a more comprehensive and equitable educational experience to their non-disabled peers."*

Technology provides enhanced access to learning and reduces the amount of time a student may need to allocate to complete reading or writing assignments. Furthermore, software programs can help to foster time management and organizational

skill sets to empower students. Assistant Technology programs ranged from reading, writing and proofreading, studying, focusing, organizational, and mind-mapping resources. Many of these programs were offered to students free of charge or reduced pricing to ensure access. Information and Technology Services support all public computing sites and provide accessible technology on all public computers and technology.

*Exceeding Standards*

Those that exceed rubric standards communicated that assistive technology can benefit all students, noting inclusive design and adaptability of the programs to best serve educational need, as well as drawing upon AHEAD's 3.1.6 performance indicator of considering student preference in deciding accommodations and alternative solutions:

> *"Assistive technology can be used by people with a wide range of abilities and disabilities, and incorporates the principles of universal design. Each user is able to interact with the technology in ways that work best for them."*

Aligned with inclusive design principles, these offices also provided interactive campus maps that emphasized accessible paths and routes to navigate campus, identify specific locations for quiet and accessible study spaces, and provided a map of the location for accessible bathrooms. Additional language informed how to report issues or physical barriers that prevent accessibility. Information pertaining to testing accommodations also included information on accessible parking around campus and outlined the housing accommodation process. Furthermore, guidelines to request accessible furniture in academic buildings and in non-classroom environments, such as

campus services, residence halls and organizational meetings. If there is a gap in services or availability of accessible furniture, one office provides an external referral for medical rental business in the local areas to help with physical barrier solutions. Furthermore, these offices may have a designated accessible technology lab for students to utilize, or provide assistive technology software for a reduced rate or for free.

### 4.3.4. Advocacy and Equity

The AHEAD Standards and Performance Indicators recommend that mission statements and philosophy of disability services offices are aligned with the mission of the institution and include accessibility, equity and diversity. It also encourages the sharing of information and advocacy to train other campus units to increase the understanding of accessibility, disability and the roles and responsibilities to design and support inclusive space and practices. Overall, six offices met this standard, while four exceeded.

*Meeting Standards*

In addition to legal compliance, accessibility, and technology language, some institutions presented information about additional, enriching programming to lift up student voice and representation as well as increase sense of belonging and engagement. Programs were housed in Counseling departments, or the Office of the Vice Provost for Educational Equity. Often, the mission statements of these institutions included language related to equity and empowerment of students:

> *"Collaborate with and empower students to create an accessible and inclusive environment by identifying, minimizing, and where possible, eliminating*

*barriers to equal access."*

These offices also used partnering language to suggest a symbiotic relationship among the office and the student as well as advocacy for change in structures and policies to envision a more equitable and inclusive environment:

*"We partner students, faculty and staff in the pursuit to develop leaders and citizens who will challenge the present and enrich the future."*

*"We recognize disability as an aspect of diversity that is integral to society and to our campus community. We serve as a partner in fostering an inclusive and equitable environment for all students."*

*"We serve as a catalyst and advocate for the institution's diversity and inclusion initiatives."*

These institutions also looked beyond traditional, mandated and reasonable accommodations to encourage students to self-advocate, and some had procedural mechanisms in place for students to report new or emergent needs that may adjust accommodation and accessibility needs.

*Exceeding Standards*

Those exceeding the standards went even further by suggesting the office's role to educate using representation of student voice across the campus. Pennsylvania State University highlights short videos of students with disabilities sharing their goals, experiences, and services they have found beneficial. One disability services office provided a series of short student videos called Student Personas, and showcased a variety of identities of disabilities. Another regularly posts Podcast programming that

centered on identity, and examined topics such as: Gender, Sexual Health, and Disability; Take Time to Make Time (Time Management); Finding the ME in Social Media; and Pride Month 2021 Roundtable. Interactive content such as these podcasts and videos elevate the representation and voice of students with disabilities.

These offices also offer enriching and varied academic and co-curricular experiences to allow all students to fully participate in activities. A few programs are highlighted below, aligning with AHEAD's second domain of "advising and educating the campus community about disability and inclusive practices" while also striving to reduce stigma and the dominant ableism culture.

University of Maryland's ADHD Clinic is a resource "dedicated to providing services to students with ADHD struggling with academic or mental health difficulties." SUCCEEDS is an acronym for Students Understanding College Choices, Encouraging and Executing Decisions for Success. Organized through the Counseling Center, the goal of the program is to assist students to better manage time, determine short and long term academic and personal goals, improve grades, adopt healthier, productive lifestyles, and prepare for graduation and career. Eligible students receive a psychological and academic assessment, with results informing an individualized treatment plan. The evaluation also identified appropriate and reasonable accommodations.

In addition to weekly, individual sessions with an academic and mental health coach, students are suggested to participate in group sessions to build resiliency, organizational strategies, and enhance (academic and personal) motivation.

Furthermore, students have an option to attend supervised study hall, during

which trained staff members help students break down assignments and provide accountability steps to track student progress. This wraparound support enables participants to further connect with trained, encouraging professionals, engage with other students with ADHD for support and further skill development, and generates scheduled time and quiet space for students to work through assignments.

Other personalized academic coaching and mentoring models were included in University of Connecticut's REACHing Peers program. REACH stands for Resources in Education and Advocacy for Current Huskies and offers: opportunities for prospective UConn students to connect with current students with disabilities; mentor-mentee relationships with current students; and connecting students with alumni for career and graduate school preparation and networking. Such extensive programming bridges connection with prospective students, empowers, engages, and promotes self-advocacy through peer support, and provides opportunities for experienced students with disabilities to assist incoming students with accommodations in academic, residential life, and co-curricular spheres. UConn also offers PASS, Peer Assisted Study Sessions which pairs a student with a trained peer coach who supports different learning approaches, academic strategies and executive functioning skills while primarily offering studying accountability.

Lastly, the University of Michigan-Ann Arbor employs inclusive design and equity language and philosophy within an Adaptive Sports and Fitness program. The program brings together people with and without disabilities in competitive and recreational activities and furthermore intends to increase awareness about, and

knowledge of, access. Adaptive sports inherently strive to minimize physical barriers and access to involvement in sports. University of Michigan's program strives to:

1. *Address barriers and create recreational and competitive opportunities for people with and without disabilities to engage in the community to participate fully.*
2. *Advocate for institutional, structural, and policy change that support equitable opportunities for people with disabilities that supports their physical, social, and mental wellness and overall quality of life.*
3. *Create equitable opportunities and programming at the University of Michigan.*
4. *Collaborate with units, departments, and programs across the University to create new value and promote adaptable talent management.*
5. *Engage the student population and other clubs to promote awareness about, knowledge of access to, and participation in, Adaptive Sports and Fitness*

These institutions also referenced or provided direct links to AHEAD, Universal Design for Learning resources, or institutional disability cultural or research centers. Examples include University of Washington's Do-It Center, dedicated to empowering people with disabilities through technology and education, and the federally funded Florida Learning Disabilities Research Center at Florida State University.

### 4.4. Opportunities to Evolve, Align and Exceed AHEAD Standards

Important, relevant content that is absent or missing can become powerful data itself, and lend further exploration and insight in the ways in which universities may grow and add in their website presence. AHEAD Domain and Performance Indicator 1.5 is listed as "Promote disability representation at all levels of institutional decision making" (AHEAD Domain, 2020). Based on the reviewed webpages set by the study design, there was limited or no evidence of representative opportunities for institutional committees, policies, and incorporating student voice and experience in adjusting and interrogating current practices.

Additionally, there was limited, publicly accessible information that clearly outlined proactive outreach and engagement for students to connect with disability services and support. Students were expected to initiate the outreach to the services office. There was a lack of proactive, intentional wraparound support, nor a systematic way in which students were positively encouraged or introduced to the Disability Services Office.

Singh and Richards (2003) note two possible kinds of missing data: 1) categories that were critical to the analysis were barely represented in the "raw" data and 2) the project raised questions at a later stage in the study which the data did not directly address. Disability Representation was an originally identified central theme and therefore dispels the latter kind of missing data. It could be plausible that the scope and design of the study limited possible data regarding disability representation in systematic institutional decision-making processes. The parameters of the study design may have

limited the opportunity to review relevant information, if presented in institutions' virtual platforms. This may be further exploration for future research, and to more concertedly identify if or how institutions infuse student voice in high level decision-making processes, or how institutions promote and actively engage students to utilize services.

Limitations of this study include the absence of inter-reliability as the sampling, search, coding, and data entry were conducted by one individual research who is also the author of the study. A systematic replication of results was attempted through three reviews by the author.

# CHAPTER 5: DISCUSSION AND CONTRIBUTIONS TO THE FIELD

The purpose of this exploratory study was to investigate the extent to which ten selective and highly selective public higher education institutions provide targeted supports and services for matriculated students with disabilities that are aligned with evidence-based practices informed by UDL and the AHEAD Domains, Standards, and Performance Indicators. Targeted supports and services for undergraduate students with disabilities were assessed based on the information and resources available on their publicly available web pages for Disability Services Offices. Specifically, the study was guided by three questions:

1. What services, programs, and supports are available to matriculated students with disabilities at selective and highly selective public four-year higher education institutions?
2. In what ways do higher education institutions differ in the consideration of services that they provide?
3. To what extent are the services and supports offered by selective and highly selective public four-year higher education institutions align with best practices for supporting students with disabilities as articulated by UDL and AHEAD?

A literature review was conducted to synthesize the existing body of research and describes the unique needs for students with disabilities, existing service delivery models that address these needs, and knowledge gaps of program effectiveness. The content analysis provided data that could generate an initial typology to categorize the

ways in which Disability Services Offices are providing programs and services for students with disabilities. AHEAD's Standards and Performance Indicators provided a framework to conceptualize a typology to differentiate the ways in which best practices are utilized in disability services programs and delivery. Such a typology has not been constructed before, and therefore serves as a baseline for possible future research. This project serves as an initial guide in the classification of programs that can be applied to better clarify and assess the ways in which websites communicate and prioritize student support.

This discussion summarizes the study's findings related to the study's framing questions, as well as explore policy and practice implications to the field of higher education disability services.

## 5.1. Summary of Findings

Overall, the findings demonstrate that each disability services office has designated staff and an office to provide, at the very least, reasonable accommodations mandated by ADA. Each website also established a website presence and content was available to identify key programs, services, and practices that each office provides for students with disabilities. As indicated in the introduction and literature review, the role of responsibility to disclose and navigate accommodations and supports shift primarily to the student when they enter college. This study notes that higher education institutions respond to student needs in different type, scope, and scale of programming and services.

The characteristics of disability services web pages from the sampled universities include evidence of legal compliance language and the transition of

responsibility in seeking out and advocating for support from high school to the college environment. Each institution offers a mission statement or description of its responsibilities, as well as a staff directory and yet the location of this information was inconsistent. Some institutions provided the mission statement on its first homepage, while others may be located in the About Us sections. Several of the office titles included "accessibility" or "disability", but differed in where they were organizationally situated. For example, Pennsylvania State University's office is centered with the Office of Vice Provost's for Educational Equity, charged with fostering equity and inclusion on campus (PSU, 2021). This represents that the institution associates the programs and services offered by the Student Disability Resources Office to be directly related to promoting equity, an AHEAD Standard.

Despite similar institutional profiles with respect to undergraduate enrollment, selectivity, acceptance rate and SAT/ACT score averages, a student's experience is differentiated and influenced by the institutional priorities and programmatic commitments for student support. Each student disability services office allocates resources differently and staffing titles were also inconsistent. All offices identified basic accommodations, students' legal rights and processes in attaining reasonable accommodations, and have a designated space for students to utilize services. Some programs specifically relay legal rights and responsibilities in reasonable accommodations and accessibility, while others employ more comprehensive programming to address overall student health and wellbeing. University's of Maryland's ADHD Clinic called SUCCEEDS showcases how wraparound support can triangulate

resources to advance the student's academic, wellbeing, and identity formation at the institution, through peer mentoring, academic coaching, and designated counseling. University of Michigan's Adaptive Sports programming also expands support for students outside of the classroom, which aligns with performance indicator 1.4.3. *"support campus events and initiatives that foster dialogue, understanding, and exploration of anti-ableism, disability history, and disability culture"* (AHEAD, 2021, p. 1). The Adaptive Sports program also directly aligns with Universal Design's principle of equity in use, and promotes equal participation in sports among students with and without disabilities.

Beyond accommodations, disability services offices extended space and programming to increase visibility, representation, and celebration of disability culture. UCLA sponsors the National Arts and Disability Center, while Florida State University is home to one of three federally funded research centers focusing on disabilities. University of Washington resources a designated space for students to learn about disability and deaf culture, including an ever-growing library of publications. These spaces directly align with AHEAD's Standard 1.4, "*foster a positive disability narrative that informs the campus culture and climate"* (AHEAD, 2021, p. 1).

This study's findings note that the studied disability services offices are at least meeting the proposed standards and aspirations from UDL and AHEAD's framework, and some are providing exemplary services or wraparound support for students with disabilities and can be modeled for other institutions. The field would benefit from additional exploration of best practices, comprehensive support and programs are offered

to students with disabilities.

### 5.2 Study Limitations

This study focused on the publicly available information on student disability services websites, It is also possible that the web pages do not fully represent all of the services and supports that are available to students. The scope of the study also was limited to webpages only targeting undergraduate students with disabilities, and did not include webpages or information regarding how disability services offices train, collaborate, and engage with faculty. There is room for exploration with how disability services offices are informing and working with faculty and other college stakeholders to incorporate UDL principles and AHEAD standards in curriculum instruction and faculty-student advising and support. Though formal accommodations are reviewed and communicated through the disability services offices, faculty also have their own discretion of constructing a classroom experience with accessibility and equity of learning in mind.

### 5.3 Contributions and Policy Implications

The focus of this study is important because student retention and success are increasingly important for degree completion and institutional rankings, which tout prestige and visibility for selective and highly selective institutions. There is a call for higher education institution to be responsive to the growing needs for students with disabilities, extending beyond traditional physical and academic access to education. The social-ecology support model suggests that a person's growth, development, and adjustment in a specific setting is dependent on the "facilitation of congruence between

individuals and their environments" (Buntinx & Schalock, 2010, p. 288). Student success bows well for both the student, who is investing time, money, and energy in pursuing a degree program, but also the institution, which is keenly eyeing its retention and persistence rates that impact national rankings. This study contributes to the field by beginning to map out the landscape of services, programs and supports offered by student disability services, and generated an initial typology that has not been constructed before.

UDL principles and evidence-based AHEAD Domains, Standards, and Performance Indicators may increasingly grow in importance as guideposts for institutions in response to the growing needs of students with disabilities, and additional consideration of alignment of services and guidelines would be interesting and important for future research and policy examination.

Additionally, from an inclusive design perspective, UDL and AHEAD Standards could be utilized and transferred to other modes of student services. This could include Residential Life, clubs and co-curricular programs and events, and counseling and wellness support programs. UDL and the AHEAD Program Standards and Performance Indicators can serve as benchmarks within student support, curriculum development and instruction, and physical space adaptation and improvement, to better provide inclusive, more equitable and accessible campus learning environments.

Overall, the web pages presented several recurring and important elements in the AHEAD Domains and Performance Indicators with varying degrees. There was a lack of evidence of disability representation in policy and decision-making practices in this study, and may be an opportunity for further exploration, which specifically aligns with

AHEAD Standard 1.5, "*promote disability representation at all levels of institutional decision making"* (AHEAD, 2021, p. 1). The lack of evidence in this study could be contributed to the limited scope of virtual content on student disability services webpages, but could be an additional area for research and exploration. It would be interesting to consider how student disability services are incorporated (or not) in decision making policies with regard to equity, inclusion, and diversity initiatives and priorities.

Further research is recommended to focus on the variation of service delivery and communication models across U.S. public institutions and their disability services offices. This project focused on the material publicly available and assessed the degrees to which AHEAD Standards and Performance Indicators are displayed in web content. The field would benefit from further study of how AHEAD Standards and Performance Indicators are fully implemented in the interactions among students and the services, which could include student assessments and case studies. It is important to consider the ways in which these disability services offices collaborate and elevate resources with other departments to help foster more equitable and inclusive campus climates for college students with disabilities.

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# APPENDIX A: AHEAD 2020 Domains, Standards, and Performance Indicators

AHEAD Program Domains, Standards, and Performance Indicators

## Introduction

The Association on Higher Education And Disability (AHEAD) offers these Program Domains, Standards, and Performance Indicators as a guide for expanding the vision of disability equity at the postsecondary level. The Standards reflect an aspirational goal for disability resource professionals in addressing systemic and individual barriers for disabled people in all aspects of higher education. They are designed to guide campus administrators' understanding of the breadth of disability resource work, direct the development and evaluation of disability resource offices, and improve the preparation of professional personnel. These Standards may also inform audiences outside higher education about the nature and scope of disability resource management in the postsecondary setting. In line with higher education efforts towards diversity, equity and inclusion, the overarching goal of disability resources is the mitigation of barriers to access for disabled individuals in all institutional programs, services, and activities.

To realize the goal, disability resource personnel must:

- Provide leadership and collaboration in framing a commitment to disability access and equity as an integral aspect of their institution's culture (Domain 1),
- Advise and educate the campus community about disability and inclusive practices (Domain 2),
- Provide services, strategies, and accommodations to mitigate the barriers faced by individual disabled people (Domain 3),
- Administer office operations guided by a mission and with access to appropriate resources (Domain 4), and
- Enhance their professional knowledge and skills (Domain 5).

The five broad Domains provide an organizational framework for the Program Standards that relate to the work of disability resource offices. Beneath each Program Standard are multiple Performance Indicators that provide a non-exhaustive list of how each Standard can be implemented. Collectively, the Domains, Standards, and Performance Indicators provide benchmarks for colleges and universities related to the work of disability resource offices.

## Domain 1: Leadership & Collaboration

Disability resource professionals provide institutional leadership in advancing the equal participation of disabled people through a collaborative process.

1.1 Provide institutional leadership to foster equitable higher education experiences for disabled individuals.

1.1.1 Foster an institutional commitment to access and equity that positions disability as an integral and valued aspect of diversity.
1.1.2 Promote the development of institutional policies that clearly demonstrate a commitment to access and equity in institutional programs, services, and activities in all physical, digital, academic and cocurricular spaces.
1.1.3 Proactively advocate for the mitigation of barriers to access in all campus programs, services, and activities in physical, digital, academic and cocurricular experiences.

1.2 Collaborate with administrators, faculty, staff, students, and other relevant institutional personnel in the design of equitable campus environments.

1.2.1 Foster collaboration on disability issues among key administrative personnel (e.g., deans, registrar, facilities, information technology, campus legal counsel, human resources).
1.2.2 Work with the campus ADA coordinator or designated group to ensure a plan is in place for the regular review of physical accessibility (e.g., facilities, new construction and renovation, grounds) and the remediation of barriers.
1.2.3 Ensure access is included in the institution's emergency and contingency planning.
1.2.4 Work with administrators to ensure that all information and communication technologies (e.g., enterprise level systems, such as the student portal, HR systems, and emergency notifications, and local tools, such as library search engines and digital courseware) developed, procured, and implemented provide an equitable experience for all users.
1.2.5 Ensure that all institutional communication and resources, including all websites and materials shared over the Internet, are provided in accessible format.
1.2.6 In partnership with institutional leaders (e.g., administrators and staff from residence life, dining services, recreation center, clubs and organizations), review and revise cocurricular policies and procedures that create barriers for students based on disability.

1.3 Collaborate with academic personnel to ensure disability is considered in the development, review, and revision of academic policies.

1.3.1 In partnership with academic leaders (e.g., deans, department heads, faculty senate), review and revise academic policies and procedures that create barriers for students based on disability.
1.3.2 Work collaboratively with academic affairs on the development, review, and revision of policies regarding program modifications (e.g., course substitutions, extension of academic deadlines).
1.3.3 Participate in the development, review, and revision of the institution's academic qualifications and essential technical, academic, and behavioral standards.
1.3.4 Ensure that equitable policies and practices extend to practica, internships and clinical experiences on- and off-campus.
1.3.5 Assist with the development, review, and revision of policies and procedures for making and settling complaints of disability-related discrimination.
1.3.6 Partner with administration and faculty to ensure disabled students have equitable assessment experiences, including that appropriate space and resources are available for providing testing accommodations.

1.4 Foster a positive disability narrative that informs the campus culture and climate.

1.4.1 Provide opportunities for students to explore disability identity in ways that acknowledge intersections with other types of personal and group identity.
1.4.2 Encourage collaboration and campus level engagement among diverse sources of disability knowledge, including offices, research centers, or scholars with expertise in disability studies.
1.4.3 Support campus events and initiatives that foster dialogue, understanding, and exploration of anti-ableism, disability history, and disability culture.
1.4.4 Include disability in the collection and review of institutional metrics, such as admissions, retention, graduation, financial aid, veteran status, and campus climate assessments, to understand and improve the experience of disabled students.
1.4.5 Partner with academic leaders to expand or explore the development of classes that focus on or integrate disability studies scholarship.

1.5 Promote disability representation at all levels of institutional decision making.

1.5.1 Participate on campus-wide advisory committees related to equity and diversity.
1.5.2 Participate on a campus-wide disability advisory committee consisting of faculty, staff, students, administrators, and community representatives.

1.5.3 Serve on decision-making bodies (e.g., such as faculty senate, general studies curriculum committee, strategic and financial planning committees, diversity initiatives, community relations) to ensure disability and access are considered as changes are proposed and contingency plans developed.
1.5.4 Foster opportunities for disabled students, faculty, and staff to contribute to campus decision-making processes.

### Domain 2: Consultation & Information Dissemination

Disability resource professionals share information, educate, and consult with a broad cross section of the campus community to facilitate equity for disabled individuals in all services, programs, and activities offered by the institution.

2.1 Advise and educate regarding disability, barriers, accommodations, and the institution's responsibility for providing access.

2.1.1 Provide information and training to faculty, staff, and administrators regarding institutional policies and procedures for ensuring equitable experiences for disabled students.
2.1.2 Inform faculty of the procedures they and disabled students must follow in arranging for accommodations.
2.1.3 Provide information and training to campus units (e.g., residential life, facilities, academic support, library, information services, human resources) to increase understanding of accessibility, disability and their role and responsibilities in designing inclusive and accessible services.
2.1.4 Advise campus personnel (e.g., information services, human resources, marketing and communications, academic departments) regarding the institution's obligation to procure and implement only accessible technologies and applications.
2.1.5 Provide training and feedback to facility and grounds personnel to foster a physically accessible campus environment.
2.1.6 Ensure key administrators are informed of legislative changes relative to access standards, promising practices in higher education disability services, and accessible technologies.
2.1.7 Advise campus student affairs regarding the intersection between disability and campus practices (e.g., student discipline, campus behavioral intervention team, student activities) that may require modification.
2.1.8 Advise, inform, and consult with cocurricular office administrators and staff regarding procedures and their role and responsibilities in providing, or supporting the provision of, accommodations.

2.2 Through proactive outreach, consultation, and training, foster an institutional commitment to inclusive design that minimizes the need for individual accommodations to achieve access.

2.2.1 Partner with instructional support staff to provide learning opportunities and encourage faculty to incorporate inclusive teaching and assessment strategies.
2.2.2 Provide training and technical assistance to student success personnel (e.g., academic success, supplemental instructional resources, career services, veterans services) to ensure their services are accessible to disabled students.
2.2.3 Collaborate with online learning personnel to ensure faculty is trained in the creation of accessible instructional materials and the use of accessibility tools within the learning management system.
2.2.4 Partner with campus instructional technology (IT) personnel to train all members of the campus community in the preparation of accessible materials.
2.2.5 Contribute to new faculty and staff orientation and training to increase awareness of disability, disability-related barriers, and inclusive design.
2.2.6 Provide training and technical assistance to student affairs personnel to ensure student programming is designed to be accessible and inclusive.

2.3 Disseminate information regarding disability resources and how to access them in accessible format through all institutional channels.

2.3.1 Encourage the inclusion of disability in the institutional statement of nondiscrimination.
2.3.2 Distribute information on availability of services via relevant campus publications (catalogs, programmatic materials, websites, etc.).
2.3.3 Ensure information on disability services (e.g., documentation requirements, statement regarding self-disclosure, processes for requesting and using services, individuals responsible for access) is on the institution's website.
2.3.4 Provide disability related grievance and complaint procedures on the institution's website.
2.3.5 Provide information about the availability of assistive technology on campus including the location of specific software and hardware.

### Domain 3: Access and Equity

Disability resource professionals address individual situations and support the implementation of accessibility solutions, including design changes and accommodations.

3.1 Work with individual students to identify disability-related barriers and strategies for mitigating them through design changes and accommodation.

3.1.1 Determine individual student rights to accommodation through a nonburdensome and ongoing interactive process that considers student narrative and appropriate, relevant documentation of disability.
3.1.2 Assess, through an individualized, interactive process, whether requested accommodations are necessary to ensure access in individual contexts.
3.1.3 Determine whether requested accommodations are reasonable.
3.1.4 Communicate to students their right to access and privacy and their role in implementing effective accommodations.
3.1.5 Explain to students and faculty what makes an accommodation appropriate or "reasonable."
3.1.6 Consider student preference in deciding on specific accommodations and evaluate alternative access solutions.
3.1.7 Consider assistive technology (AT) solutions in the mitigation of identified barriers; provide/refer student for training as necessary.
3.1.8 Communicate the denial of a requested accommodation to students in writing and include information on how to grieve the decision.
3.1.9 Follow up with students to ensure agreed upon accommodations are effective.
3.1.10 Refer students to campus and community resources (e.g., counseling services, academic support, multicultural centers, vocational rehabilitation) as needed.

3.2 Consult with faculty members to mitigate disability-related barriers for individual students through design strategies and reasonable accommodations.

3.2.1 Consult with faculty on accommodation decisions when there is a potential for a fundamental alteration of an academic requirement.
3.2.2 Inform faculty of accommodations that should be provided to their students and the faculty role in implementing them.
3.2.3 Collaborate with faculty to ensure that design changes or accommodations are effective in providing access and are implemented efficiently.
3.2.4 Follow up with faculty when students report that an accommodation is not available or is ineffective.
3.2.5 Address concerns about student behaviors perceived as potential conduct code violations in light of disability.
3.2.6 Consult with department representatives and community agency personnel to ensure accessibility in internships, field placements, and other community-based academic experiences.

3.3 Consult with administrators and staff to implement design strategies and reasonable accommodations that mitigate barriers identified by individual disabled people.

3.3.1 Collaborate with on- and off-campus partners (e.g., admissions, career services, residence life, dining services, library, event management) to address barriers to access identified by disabled individuals.
3.3.2 Follow up with campus units when individuals report a lack of access or unavailable/ineffective accommodations.

### Domain 4: Office Administration and Operations

Disability resource professionals are guided by a program mission, have appropriate resources to fulfill the mission, operate under practices consistent with the mission, and establish an ongoing process of assessment in achieving the mission.

4.1 Develop and publicize a program mission that advances the institution's commitment to access.

4.1.1 Develop and disseminate a program mission statement and philosophy that is aligned with the mission of the institution and with the values of the profession, including accessibility, equity, and diversity.
4.1.2 Use the mission statement for strategic planning, establishing specific goals, and reviewing progress regularly.
4.1.3 Promote understanding of and support for the mission by office personnel and institutional stakeholders.
4.1.4 Advocate for a reporting structure that strategically positions the office to fulfill its mission.
4.1.5 Develop a staffing plan appropriate to achieving the mission and advocate for its implementation.
4.1.6 Ensure the mission aligns with a service delivery model that respects students' experiences, autonomy, and responsibility.
4.1.7 Regularly review the mission for its alignment with emerging best practices and as a tool to assess progress.

4.2 Ensure the institution has committed appropriate resources for coordinating services for disabled individuals.

*Staff*

4.2.1 Establish staffing at the level necessary to address individual and systemic barriers in a timely manner.,
4.2.3 Prioritize hiring a diverse staff that represents multiple identities and demonstrates understanding of diversity, equity, and inclusion.
4.2.4 Provide services by personnel with training and experience in working with disabled college students (e.g., student development, relevant degree programs).
4.2.5 Ensure staff has knowledge of the applicable laws that provide for an accessible higher education experience for disabled students.
4.2.6 Assign staff with appropriate training to each aspect of service delivery (e.g., assistive technology, communication access, digital access, accommodation implementation, etc.).
4.2.7 Ensure that personnel adhere to a relevant code of ethics (e.g., AHEAD, APA).

*Space*

4.2.8 Operate from a welcoming, accessible office space appropriate to meet service needs and ensure appropriate confidentiality.

*Budget*

4.2.9 Administer a budget to support office operations.
4.2.10 Administer, or participate in the administration, of a budget to support individual accommodations.

4.2.11 Ensure adequate budget is available to support the timely implementation of accommodations determined to be reasonable.
4.2.12 Communicate budgetary needs and strategies, expense projections, and budget updates to institutional administrators.
4.2.13 Advocate for additional internal and external funds as needed to address individual situations and create equitable campus environments.
4.2.14 Ensure that professional development funds are available for staff.

*Equipment*

4.2.14 Acquire, maintain, and update appropriate technology to support effective staff productivity (e.g., computers, assistive technologies, service coordination software).
4.2.15 Implement a secure, computerized database to maintain and organize confidential student records; facilitate coordination of services; support communication with students and faculty; and support development of reports.

4.3 Create, review, and revise professional practices for the effective and efficient delivery of services.

4.3.1 Create written procedures and practices for determining student status as a "qualified individual with a disability" eligible for accommodations; review and revise as needed.
4.3.2 Create written procedures and practices for determining reasonable accommodations; review and revise as needed.
4.3.3 Establish a process for conferring with faculty to determine whether an accommodation would fundamentally alter an essential course or program objective.
4.3.4 Establish a process for notifying faculty (and/or others with a need to know) of the accommodations determined to be reasonable for individual students.
4.3.5 Create, written procedures for managing common accommodations (e.g., test accommodations, interpreting); review and revise as needed.
4.3.6 Develop procedures for determining when provisional accommodations are appropriate; review and revise as needed.
4.3.7 Develop an internal procedure for students to grieve accommodation decisions; review and revise as needed.
4.3.8 Maintain professional, FERPA-protected records that document eligibility, availability of accommodations, and services provided for each student.

4.4 Design and implement a rigorous program of ongoing assessment to improve service delivery and demonstrate institutional impact.

4.4.1 Establish a written assessment plan that aligns with the program mission statement and philosophy and includes qualitative and quantitative data and measurable goals; review and revise the plan as needed.
4.4.2 Collect data to track use of accommodations and services.
4.4.3 Collect data to identify campus barriers, track outreach activities, and guide development of technical assistance and collaboration.
4.4.4 Collect data to assess student, faculty, and administrator satisfaction with the quality and effectiveness of services.
4.4.5 Collect data to assess the effectiveness and efficiency of services and identify areas for improvement.
4.4.6 Collect and utilize data from all relevant campus units to evaluate services, improve practices, and identify additional resource needs.
4.4.7 Develop an annual report of activities, achievements, and needs to document institutional impact and share with administrators.

Domain 5: Professional Development

Disability resource professionals maintain up-to-date professional knowledge and skill relevant to access and equity for disabled individuals.

5.1 Provide disability resource professionals with ongoing opportunities for quality professional development.

5.1.1 Provide orientation to new staff.
5.1.2 Determine professional development needs of staff members on an individual basis, including disability, access, technical, executive, and leadership knowledge and skills.
5.1.3 Support staff in accessing on- and off-campus professional development activities with release time, coverage of work assignments, and funding.

5.2 Provide opportunities for disability resource professionals engage in professional communities to contribute to the growth and development of the field.

5.2.1 Recommend staff for service on institutional committees and work groups.
5.2.2 Nominate staff for leadership positions in disability organizations (e.g., governors' councils, AHEAD Affiliate groups).
5.2.3 Provide staff with funding, release time, and coverage to contribute to the growth and development of the field.

*NOTE: AHEAD Program Domains, Standards, and Performance Indicators developed/revised in 1999, 2006, 2021.*