

# An Empirical Analysis of the ApplyTexas Postsecondary Application

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# Why the Application Matters

Access to United States higher education has remained an important topic in educational research for decades (Clinedinst & Patel, 2018; Hearn, 1984; Hurtado et al., 1997; Orfield, 1992; Perna, 2006). Within this body of research, emerging work has found that knowledge of postsecondary processes—such as how to write admissions essays and how to apply for financial aid—may be critical barriers for many students to overcome to gain admission to the institution of their choice and successfully enroll (Bettinger et al., 2012; Clayton & Umbach, 2020; Fu, 2014; Pennebaker et al., 2014). Merely having reliable Internet (Dettling et al., 2018) and understanding how to use computer applications has been deemed an "invisible academic prerequisite[s]" for access to the United States higher education system (Goode, 2010, p. 584).

Then, once students overcome these considerable hurdles and access the higher education system, researchers have already discovered that postsecondary students experience a considerable amount of stress on their path to a postsecondary credential (Mark et al., 2014; Shields, 2011; Zajacova et al., 2005). Students often struggle to find institutions of good academic fit (Mattern et al., 2010), procure necessary financial aid (De La Rosa, 2006), and gain an adequate support network on campus or at home (Means & Pyne, 2017) to persist long enough to earn their credential. If one or more of these elements are missing on a student's postsecondary path, students often transfer from institution to institution, embarking on another disjointed, complex, and problematic process toward graduation (Duggan & Pickering, 2008; Laanen et al., 2010; Townsend, 2008; Townsend et al., 1993). In all, access to and success within the U.S. higher education system has been a stressful, rigorous, and difficult process for postsecondary students for as long as the system has been in place.

As this access and success has remained elusive, this study posits that one element of accessing the system has remained equally elusive and surprisingly understudied: the difficulty of the postsecondary application itself.

Studies related to postsecondary applications have largely focused on how many applications a student successfully completes each admissions cycle (Clinedinst & Patel, 2018) and what drives change in application patterns (Legatt, 2021). These changes have been owed a multitude of diverse and seemingly unrelated factors such as institutional reputation (Alter & Reback, 2014), standardized test score policies (Hurwitz et al., 2017), Affirmative Action (Long, 2004), geographic location and access to social capital (Chenoweth & Galliher, 2004), the success of an institution's athletics program (Pope & Pope, 2009), and most recently, the coronavirus (COVID-19) global pandemic (Smith, 2020; Walsh,



2020). However, beyond studies capturing both quantitative and qualitative data to articulate application trends, very little knowledge exists about how difficult postsecondary applications are. A myriad of answered questions remain, such as:

- How long does it take to complete a postsecondary application?
- Do completion times vary across different applications?
- How long is the postsecondary application by question or word count?
- How readable are postsecondary applications?
- Are postsecondary applications translated into languages beyond English?
- Are postsecondary applications web accessible for people with disabilities?
- Are postsecondary applications mobile optimized to be completed on cellular devices?
- Are postsecondary applications small enough by bit size to be easily downloaded and completed across many Internet-capable devices?

Each of these questions hint at postsecondary application elements that could render a postsecondary application exceedingly difficult to complete. Consider first-generation in college students, English language learners, students with disabilities, students living in rural areas or areas without access to high-speed Internet, or any students who hold a combination of these intersectional identities. Here is what we do know:

# **Postsecondary Application Volume on the Rise**

Descriptive research has found that the average postsecondary student has been completing more postsecondary applications than ever, with most prospective postsecondary students completing applications to at least three institutions, with the most privileged and wealthy prospective students completing upwards of a dozen applications (Clinedinst & Patel, 2018). This phenomenon is likely due to the rising popularity of common, national postsecondary application systems such as the Common Application (The Common Application, Inc., 2021), the Universal College Application (ApplicationsOnline, LLC., 2021), and the Coalition for College Application (Coalition for College, 2021). Despite the effects of COVID-19 on postsecondary application numbers, many elite and prestigious institutions are reporting increases in applications for the Class of 2025, including Harvard University who reported a 42% increase. However, less prestigious public institutions and many small private liberal arts institutions



have experienced marked declines in applications, as many institutions have considered year-long rolling admissions cycles to drive yield (Jaschik, 2021).

# **Minoritized Students Less Likely to Complete Postsecondary Applications**

Nearly fifty years of research into U.S. postsecondary application patterns has found that students of Color (Welton & Martinez, 2013), low-income students (Means & Pyne, 2017; Perna, 2006), first generation in college students (Pascarella et al., 2004), rural students (Nelson, 2016), English-language learners (Kanno & Cromley, 2013), and students from other minoritized backgrounds (Kezar et al., 2020) do not apply to and access U.S. higher education at the same rate as their peers. In an analysis of postsecondary application processes, Holland (2013) found that many U.S. colleges and universities do not adjust their messaging and information streams to low-income prospective students, nudging these students to apply to "undermatched" institutions (p. 154), revealing their absence of "college knowledge" (p. 121) necessary to successfully complete applications and postsecondary access processes, such as applying for financial aid.

### Most Postsecondary Content is Difficult to Read

Emergent research in higher education has found that many postsecondary materials, including admissions instructions and financial aid application instructions are often written above the 14<sup>th</sup> grade English reading level (Taylor, 2017, 2018, 2019b, 2020), rendering this content very difficult for traditional high school students and the average U.S. adult to read and comprehend. Current literacy statistics suggest the average U.S. adult reads and comprehends English language text between the 7<sup>th</sup> and 8<sup>th</sup> grade (middle school) levels (Center for Plain Language, 2017; Clear Language Group, 2021). Moreover, many studies have articulated either "college knowledge" (Holland, 2013, p. 121) or college jargon that complicates postsecondary materials at the word level, beyond difficult readability of postsecondary materials at the document level (Ardoin, 2013; Taylor & Bicak, 2020).

### Most Postsecondary Content is not Translated Beyond English

Related research has found that access information for the U.S. higher education system is predominantly English (Kanno & Varghese, 2010; Núñez, 2014; Taylor, 2018), meaning that very little postsecondary access information is accessible to English language learners (ELL) or English as a second language (ESL) students. However, decades of research have called for the widespread translation of U.S. higher education access information, including translated admissions applications (Ceja, 2006; Pérez



& McDonough, 2008; Núñez, 2014; Taylor, 2018). Of course, this lack of linguistic equity could be partially responsible for the equity gaps between native English speakers and ELLs and ESLs in their access of the U.S. higher education system (Great Schools Partnership, 2014; Kanno & Cromley, 2013; Taylor, 2018).

### Most Postsecondary Content is not Americans With Disabilities Act (ADA) Compliant

Historically, people with disabilities have not accessed U.S. higher education at the same rate as their peers (Kutscher & Tuckwiller, 2019; Petcu et al., 2017; Wright et al., 2016). As technology has changed to allow for web accessible postsecondary information for these audiences, researchers have found that most U.S. postsecondary institutions do not publish web accessible communications for prospective students with disabilities (Erickson et al., 2013; Hackett & Parmanto, 2009; Taylor & Bicak, 2019). Although no prior studies have analyzed whether postsecondary application systems are web accessible for people with disabilities, Taylor's (2019a) exploratory analysis of the ApplyTexas, Common Application, Coalition Application, and Universal College Application found that no application was entirely ADA-compliant, with ApplyTexas being most compliant (97 web accessibility issues) and the Common Application being least compliant (325 web accessibility issues).

### The Digital Divide Restricts Access to Postsecondary Applications

As postsecondary access processes (i.e., applying for admission, financial aid) become increasingly digital and Internet-based, researchers have found that low-income and rural students often struggle with access to high-speed or adequate Internet to successfully complete these processes (Jones et al., 2009; Scott et al., 2016; Sundeen & Sundeen, 2013; Venegas, 2006, 2007). Dettling et al. (2018) examined the relationship between prospective student access to high-speed Internet and college application rates, finding that "students with broadband in their postal code perform better on the SAT and apply to a higher number and more expansive set of colleges" (p. 260). Moreover, the researchers learned the availability of broadband Internet generally improved application rates, yet this improvement was concentrated in high socioeconomic areas, perhaps exacerbating pervasive inequities related to poverty, Internet access, and postsecondary admission (Dettling et al., 2018). Recently, the Federal Communications Commission (FCC) established the Emergency Broadband Benefit Program which provides a \$50 monthly subsidy to help purchase standard Internet services and equipment, addressing how the COVID-19 pandemic has negatively impacted the "turn to virtual learning" and postsecondary access for low-income individuals (Federal Communications Commission, 2021, p. 2).



### The Modern U.S. Postsecondary Student Embraces Cellular Technologies

Cell phone use among U.S. postsecondary students is ubiquitous (Harvard University, 2021; Lee et al., 2017; Lepp et al., 2015a, 2015b), as the average U.S. postsecondary student uses their cell phone for at least nine hours per day (Cumberledge, 2017). Research focused specifically on postsecondary students and cell phone usage has found that modern, digital-native postsecondary students are quite literally addicted to their cell phones (Roberts et al., 2014). However, unless prompted by an instructor, students are more likely to use their cell phone for leisure than academic tasks (Lepp et al., 2015b), suggesting that institutions of higher education strike a balance between mobile- and desktop-focused information processes related to postsecondary access and success. Yet, both national—Common Application (The Common Application, Inc., 2021) and Coalition for College Application (Coalition for College, 2021)—and state-level applications—ApplyMaine (University of Maine System, 2021), University of California System (The Regents of the University of California, 2021), and University of Wisconsin System (Board of Regents of the University of Wisconsin System, 2021)—have published mobile-optimized versions of applications to entice prospective students to use their cell phones to apply to an institution of higher education.

# **Focusing on ApplyTexas**

As one of the largest and most widely used postsecondary application systems in the country, ApplyTexas was written into Texas law as a requirement for all public institutions of higher education to use when facilitating the admissions application process for prospective postsecondary students in Texas and beyond. Under Title 3 of the Texas State Education Code (Sec. 51.762a):

> The [Texas Higher Education Coordinating] board, with the assistance of high school counselors and an advisory committee composed of representatives of general academic teaching institutions, junior college districts, public state colleges, public technical institutes, and private or independent institutions of higher education, and with the consultation of all institutions of higher education that admit freshman-level students:

(1) shall adopt by rule:

(A) a common admission application form for use by a person seeking admission as a freshman student to a general academic teaching institution;

(B) an electronic common admission application form for use by a person seeking admission as a freshman student to an institution of higher education that admits freshman-level students, other than a general academic teaching institution; and



(C) if the board determines that adoption of the form would be cost-effective for nursing schools, an electronic common admission application form for use by a person seeking admission as a student to an undergraduate nursing education program at an institution of higher education; and

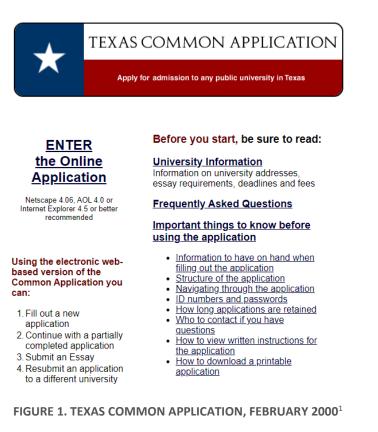
(2) may adopt by rule a printed format common admission application form for use by a person seeking admission as a freshman student to an institution of higher education that admits freshman-level students, other than a general academic teaching institution. (Admission Application Forms, Tex. Educ. Code Ann. § 51.761 of 1997, Amended 2017)

According to the ApplyTexas website, ApplyTexas was created "through a collaborative effort between the Texas Higher Education Coordinating Board (THECB) and the colleges and universities represented on the site" (Texas Higher Education Coordinating Board, 2007, para. 1), as all public institutions and many private institutions of higher education allow students to apply using ApplyTexas. ApplyTexas also allows students to complete such tasks as:

- Apply for admission to any Texas public university, as well as to participating community and private colleges.
- Apply for undergraduate, international, and graduate admission.
- Copy a submitted application to another institution.
- Submit your application essays online.
- Apply for scholarships from participating universities.
- Search for and view both general and university specific information. (Texas Higher Education Coordinating Board, 2007, paras. 3-8)

Early iterations of ApplyTexas were written as the Texas Common Application, and the first web version of the State of Texas Common Application for Admissions was developed and implemented for the Summer 1999 and Fall 1999 terms. Below is a screenshot from the Texas Common Application in February of 2000.





Over time, the Texas Common Application was updated several times to keep pace with technology, including the login screen being integrated into the landing page. The screenshot below

from June 2007 makes an early mention of "ApplyTexas."

Welcome To Applytexas! ore you start, be e to read: We believe the college application process should be as simple and streamlined as possible. That is why at www.applytexas.org, you can accomplish a multitude of tasks, including: 4 Yr. University Info <u>Graduate Admission</u> <u>2 Yr. College Info</u> <u>Scholarship Info</u> Apply for admission to any Texas public university, as well as to participating community and private colleges Apply for admission to any leads public university, as wen as to Apply for undergraduate, international and graduate admission
 Copy your submitted application to another institution.
 Submit your application essays on-line. FAQ Things to Know Apply for scholarships from participating universities.
 Search for and view both general and university-specific information. myApplyTexas Login: We HIGHLY recommend reading through the informational pages of this website BEFORE you begin using this site. Thanks - We wish you the best on your journey to college! Username \_\_\_\_\_ Click here to ENTER APPLYTEXAS -> Go to Apply 🗸 Browser Recommendation Log in ?> New users click here. Forgot vour username or password? Look it up.

FIGURE 2. TEXAS COMMON APPLICATION, JUNE 2007

<sup>&</sup>lt;sup>1</sup> All screenshots taken from ApplyTexas' archival captures at the Internet Archive (<u>www.archive.org</u>)



By 2010, the Texas Common Application had become ApplyTexas, and the ApplyTexas.org website had been considerably updated with a new user interface and color palette:

	About ApplyTexas Help Counselors log in here »				
Explore. Apply. Repeat.					
Texas Public University, plus some and schola private and two-year schools. <u>Get started</u>	and submit your admission No need to start from scratch. Copy a arship applications online.				
First time here? No problem. Get started	Already have an account? Log in now				
It's fast. It's easy. It's free. <u>Create your account now »</u>	username password Department or password? Log in				
Last updated July 22 , 2010 <u>Privacy</u> FAQ Partner of College for All Texans					

FIGURE 3. APPLYTEXAS APPLICATION, JULY 2010

The 2010s witnessed the rise of social media technologies such as Facebook, Twitter, and Instagram, as well as smart devices and cloud computing. As these technologies exploded in popularity, web developers could build websites to include many more interactive features and customizable user experiences that the Internet had not seen before (Massachusetts Institute of Technology, 2019). However, ApplyTexas did not undergo the same type of advancement, as the ApplyTexas landing page has largely remained unchanged since 2010:



#### **APPLYTEXAS, AUGUST 2011**

	A	bout ApplyTexa	s Help	Counselors log in here »	
Explore. Apply. Rep	eat.				
Research your options. Admission information for every Texas Public University, plus some private and two-year schools. Begin your search »	Apply online. Complete and submit yo and scholarship applicad Get started now » or preview the 2012-13.	ions online.	completed a	start from scratch. Copy a application and use it to other school.	
First time here? No pro		A	ready have	an account? ו NOW	
It's fast. It's ea It's free. <u>Create your account</u>	,	usemame password <u>Forgot your</u>	usemame or	password? Log in	
Last updated A5, 7011 Riverse FAQ					

APPLYTEXAS, JULY 2014

		About ApplyTex	as Help	Counselors log in here »	
Explore. Apply. Rep	eat.				
Research your options. Admission information for every Texas Public University, plus some private and two-year schools. Begin your search a	Apply online. Complete and submit and scholarship appli <u>Get started now »</u> preview the 2014-15 a the 2015-2016 applica	cations online. applications » or	completed	start from scratch. Copy a application and use it to other school.	
First time here? No problem. Get started		Already have an account?			
It's fast. It's easy. It's free. <u>Create your account now »</u>		usemame password Foroot voi		r.nassword? Log in	
Last updated July 22, 2014 <u>Privacy</u> FAQ					

### **APPLYTEXAS, JUNE 2017**

	About ApplyTex	as Help Co	unselors & Administrators log in here »
Explore. Apply. Rep	oeat.		
Research your options. Admission information for every Texas Public University, plus some private and two-year schools. Begin your search a	Apply online. Complete and subm and scholarship app Get started now a Preview the 2018-20 Preview the 2017-20	ications online.	Do it again. No need to start from scratch. Copy a completed application and use it to apply to another school. Learn how a
First time here? No pro		ł	Aiready have an account?
It's fast. It's e It's free. <u>Create your account</u>		usemame password <u>Forgot voc</u>	
Last updated June Privacy Web Accessi			SecureFrust Insted Commerce Autocontention



#### **APPLYTEXAS, JUNE 2020**

	About ApplyTexa	s Help Cou	nselors & Administrato	ors log in here »
Explore. Apply. Repe	eat.			
Research your options. Admission information for every Texas public university and two-year school, plus many private colleges and universities. Begin your search a	Apply online. Complete and submit and scholarship appli Get started now a Preview the 2021-202 Preview the 2021-2022 of View the 2021-2022 of	cations online.	Do it again. No need to start from s completed application i apply to another school Learn how »	and use it to
Essay prompts for U.S. Freshman a 2021, and Spring 2022 have been pos		ed from the previo		
First time here? No prob <u>Get started</u>		A	ready have an accour	rt?
It's fast. It's easy. It's free. <u>Create your account now ≫</u>		usemame password Problems loosing in? Click here Log in		Log in
Last updated June 2 Privacy Web Accessibi			SecureTrust	

As will be addressed in the qualitative analysis section of this study, one of ApplyTexas' major strengths is its ubiquity within the state of Texas due to legislative requirements and its ability for students to apply to many Texas institutions at once, while also navigating the transfer process and graduate school application process within the same application system. Here, students can apply to a community college in Texas, complete a transfer application to a four-year institution in Texas, and then pursue graduate studies in Texas without ever leaving the ApplyTexas application. This consolidation works to keep Texas students in Texas throughout their postsecondary career at multiple levels, as many other institutions of higher education outside of Texas staff regional admissions counselors to recruit Texas students away and toward out-of-state institutions (Louisiana State University, 2021; University of Florida, 2021).

As a result of competition and the COVID-19 global pandemic, postsecondary enrollment in Texas declined roughly 3% during the 2020-2021 academic year, with two-year institutions suffering a sharper decline at roughly 9% (White, 2020). These declines and situations related to the COVID-19 pandemic led many Texas institutions to waive standardized testing requirements (Hoover, 2020), adopt other application systems beyond ApplyTexas (The University of Texas at San Antonio, 2020), and waive application fees (Chandler, 2020). To move ApplyTexas further toward more contemporary technology, the Texas Higher Education Coordinating Board launched a chatbot named ADVi which "uses artificial intelligence to provide on-demand support to Texans looking to attend or return to higher education" (Texas Higher Education Coordinating Board, 2020, para. 2), allowing students to text with the bot to learn more about Texas institutions to "complete their certificates or degrees at Texas colleges and



universities" (para. 9). These shifts embrace an ethos of *keeping Texas students in Texas*, yet little attention has been paid to whether ApplyTexas is as simple and intuitive as possible for Texas students, in an effort to lower the information and access bar for Texas students to begin their pursuit of a degree or credential from a Texas institution.



# **Evaluating ApplyTexas: Reviewing the 2018/2019 Study**

Since its writing into Texas state law, only one empirical study has been published which compares the relative ease or difficulty of ApplyTexas against other national-level postsecondary applications of which ApplyTexas competes with. Taylor's (2019) cross-analysis of ApplyTexas versus the Common Application, Coalition for College Application, and Universal College Application was revealing, as ApplyTexas was longer (by word count) and more difficult to read (14.6<sup>th</sup> grade reading level) than the other applications in the study. Table 1 below displays how the 2018-2019 admissions cycle version of ApplyTexas measured against other applications from the same admissions cycle:

#### TABLE 1.

Descriptive statistics from 2010/2019 Apply Texas Report (Taylor, 2019a, p. 2)							
Application	Word Count	Readability	Clicks	Time (est.)	Translated?	Web Accessible?	Mobile Optimized?
Apply Texas	14,692	14.6 <sup>th</sup> grade	87	50 minutes	No	No - 97 errors	No
Coalition Application	6,407	14.2 <sup>nd</sup> grade	56	45 minutes	No	No - 164 errors	Yes
Common Application	7,990	9.7 <sup>th</sup> grade	146	45 minutes	No	No - 325 errors	Yes
Universal College Application	3,872	11.9 <sup>th</sup> grade	39	35 minutes	No	No - 135 errors	No

### Descriptive statistics from 2018/2019 ApplyTexas Report (Taylor, 2019a, p. 2)

Data in Table 1 suggests the 2018/2019 ApplyTexas was longer by word count and more difficult to read by English reading comprehension grade level than any other application system in the sample. These findings reveal that the 2018/2019 application may have been very difficult for the average prospective postsecondary student and U.S. adult to read and comprehend, especially if attempting to complete the application in one sitting. Moreover, this study implied that ApplyTexas required the 3<sup>rd</sup> most mouse clicks of the four application systems studied in the previous report, was not translated beyond English, and was not mobile-optimized for complete for students whose only electronic device is their cell phone.

To render postsecondary applications more accessible for minoritized populations, research has suggested that postsecondary access materials be translated (Ceja, 2006; Pérez & McDonough, 2008;



Núñez, 2014; Taylor, 2018), be web accessible for people with disabilities (Erickson et al., 2013; Hackett & Parmanto, 2009; Taylor & Bicak, 2019), and be mobile optimized (Venegas, 2006, 2007) so that students of all abilities, backgrounds, and varying degrees of technology access can read and comprehend the material. However, in the 2018-2019 report, neither ApplyTexas, nor any other common application, was entirely web accessible for people with disabilities, while only the Coalition for College application and Common Application were mobile optimized. Additionally, no applications were translated into a non-English language. This is especially problematic for ApplyTexas, as there has always been and continues to be a large Spanish speaking population seeking access to higher education in Texas at a higher rate than ever (Ura & Novak, 2020). Subsequently, Taylor's (2019a) 2018/2019 ApplyTexas exploratory report made several recommendations to improve ApplyTexas, including:

- Translating ApplyTexas into at least Spanish and potentially other languages
- Writing ApplyTexas in the most web accessible fashion possible
- Mobile-optimizing ApplyTexas so that low-income students and their support networks can complete the application on their cellular device
- Allowing ApplyTexas to be auto-saved by each fillable form (a text entry box within an online form) so that students do not lose application progress

After these recommendations were made, ApplyTexas system administrators shared information regarding a migration of ApplyTexas to Amazon Web Services (AWS), a technology enhancement that would allow ApplyTexas to incorporate several of the recommended application features. As of April 2021, that migration has not occurred. Ultimately, amid the COVID-19 pandemic (Chandler, 2020; Hoover, 2020) and declining postsecondary applications from students in Texas (White, 2020), the Council of Public University Presidents & Chancellors (2021) asked that the ApplyTexas report be refreshed to reflect the 2020/2021 application cycle, resulting in the study at hand.

# **Evaluating the 2021/2022 ApplyTexas Application**

The 2020/2021 version of the ApplyTexas exploratory report needed to speak to the prior report to appropriately compare the newest version of ApplyTexas to the one evaluated in 2018/2019, informing how the application has or has not changed. Yet the current report also needed to be expanded to encompass more postsecondary application systems, allowing an understanding of the holistic postsecondary application landscape across the United States. Moreover, by adding more



application systems and more evaluative metrics to the current study, administrators of application systems can better understand how other application systems are written and how to improve their application system for their unique prospective student audiences.

### **The Applications**

The current study evaluates ApplyTexas as it compares to the Common Application, Coalition for College Application, and Universal College Application. In addition, this study evaluates these additional applications: ApplyMaine, ApplyMontana, the California State System Application, the City University of New York (CUNY) Application, the Common Black College Application, the Connecticut State Community Colleges Application, the Minnesota State System Application, the Penn State System Application, the State University of New York (SUNY) Application, the University of California System Application, and the University of Wisconsin System Application.

### The 2018/2019 Metrics

Akin to the 2018/2019 ApplyTexas exploratory report, this 2020/2021 study evaluates the length (by word count), readability level, web accessibility, presence of translation, and mobile optimization of each application. Word count was calculated by manually extracting each page from the application, as it was being completed, and then analyzing each application's full text document with Readability Studio, quantitative linguistics software program (Oleander Software, Ltd., 2021). Readability Studio was also used to calculate English language readability of each full text document using four reliable, empirically rigorous readability measures, including the Automated Readability Index, Flesch-Kincaid Grade Level Test, Gunning-Fog Index, and Simple Measure of Gobbledygook. Each readability measure captures a unique and nuanced combination of syllables, letters, words, sentences, and punctuation per document, producing a grade level equivalency score of readability difficulty (e.g., a score of 11 indicates a text appropriate for a person who can read and comprehend English at the 11<sup>th</sup> grade level). These metrics have been used in foundational higher education studies of readability and have been found to be useful proxies for measuring the difficulty of higher education communication meant for prospective and current student audiences (Taylor, 2017, 2019b, 2020).

To evaluate web accessibility, the current study employed Tenon, an application programming interface (API) driven accessibility service that reads a webpage's code (e.g., HTML) and detects web accessibility errors. Tenon's web accessibility evaluation is in line with the most recent Web Content Accessibility Guidelines 2.0 (WCAG), written into Section 508 of the Rehabilitation Act of 1973. WCAG represents the official threshold of web accessibility that all Title IV institutions of higher education must



adhere to in order to remain compliant with federal regulations (U.S. General Services Administration, 2020). As each application system under study encompasses Title IV institutions, using Tenon to evaluate the web accessibility of each application was important to ensure that postsecondary application processes are accessible for people with disabilities.

Each application was also evaluated for presence of translation, specifically if any content, institutional contact information, or assistance guides/frequently-asked-question (FAQ) sections were written into any languages beyond English. Each application system was reviewed and binary coded if there was presence of translation ("1" = yes, "0" = no). Finally, each application system was evaluated for mobile optimization, including the landing page of the application and each page of the application itself. These webpages included the login page, the profile creation page(s), and each application page. Each application system was reviewed and binary coded if a page or pages were mobile optimized ("1" = yes, "0" = no).

### New Metrics for 2020/2021

This new study integrates several new metrics for evaluating the difficulty of postsecondary applications. To address emergent research suggesting Internet speed can affect students' ability to access postsecondary education (Dettling et al., 2018), this study employs Sitechecker Pro's page size tool (Sitechecker, 2021), which measures the byte size of a webpage, informing the website developer as to how quickly or slowly a webpage may load depending on the speed of an Internet user's connection. Moreover, given the progress toward migrating the ApplyTexas application to Amazon Web Services to increase its technological capacity, this study evaluated the auto-save features of each application system to learn if technological safeguards are being written into application systems to save application progress in the event of a device shutdown, Internet outage, or user error. Applications were completed using a high-speed, 100mbps Wi-Fi connection.

Regarding metrics related to how the application is written at the question- or fillable formlevel, additional metrics were added to the current study to provide further insight as to how long or complicated the application may be for the average student. First, this study captures both the number of fillable forms required to create an application profile and the application itself, providing a measurement of how many questions or "blanks" a student needs to fill in order to complete the application. This study also evaluates the overall number of webpages required to complete the application, again providing a measure of how long the application is and how difficult it may be for a person with a low-speed Internet connection to load and complete each page of the application. Finally,



this study captures the overall number of minimum mouse clicks it takes to complete the application, another measurement of how long and difficult an application may be for a student.

# **Creating a Synthetic Student Profile: Willie Goes to College**

A postsecondary application may be more or less difficult to complete depending on the type of student one is. Consider the depth of information required for a returning adult student with 100 transfer credits from four different institutions versus a first-time-in-college (FTIC) student coming straight from traditional public high school with no dual credit, Advanced Placement (AP), or international baccalaureate (IB) courses. The synthetic student profile was used to create an application profile and complete the application up until the payment screen: No applications were actually submitted to institutions to alleviate administrative burden and uphold the ethical obligations of the study. An outline of the synthetic student profile can be found below:

- Name: Willie College (no middle name)
- Birthday: December 10, 2001
- Gender: Selected at Random
- Race/Ethnicity: Selected at Random
- Marital Status: Single
- Veteran Status: Never a Member of the Armed Forces
- Citizenship: United States Citizen
- High School: A.N. McCallum High School, Austin, TX 78756
- High School Enrollment Date: August 2017
- High School (Anticipated) Graduation Date: May 2021
- Coursework Rigor: No dual credit, AP, or IB courses
- Coursework Reported: English 9-12, Science 9-12, History 9-12, Math 9-12
- Grade-Point Average: 3.5
- Test Score(s) Reported: One SAT Score of 1200, No ACT Score
- Essay(s) Reported: One Personal Statement
- Club Membership/Extra Curriculars: None
- Valid Social Security Number: Yes
- Degree Sought: Accounting



- Parents (Married): Will and Willemina College
- Parental Education: Both parents with bachelor's degrees in Accounting
- Siblings: None
- Address: (researcher's home address)
- Phone: (researcher's phone number)

Given the build of the synthetic student profile, each application was likely shorter than many prospective students' applications, as many prospective students take upper-level or advanced coursework, write several essays, participate in many clubs and extra-curriculars, and take multiple SATs and ACTs to bolster their application strength. As a result, the current study likely represents an *underestimation* of how long or difficult a postsecondary application really is, given the basic and rudimentary nature of the synthetic student profile. Future studies could utilize more complex synthetic student profiles to better norm the length and difficulty of postsecondary application processes across the United States.

# Individual Institutions Utilized in 2021/2022 Update

Although common state-, system-, or nation-wide application systems allow students to complete a single application and send that application to any number of institutions of higher education, prospective students must specify which institutions to send the application to. This requires a selection of the institution, which subsequently requires the student to answer institution-specific questions. From here, this study employed an alpha-random selection strategy using the specific degree sought by the synthetic student profile: Accounting. This strategy involved the researcher selecting an institution from each application system at random using a random letter generator (set to parameters A-Z) and then exploring whether that institution offered an Accounting degree of any kind. If the institution did not offer Accounting, the alpha-random selection strategy continued until an institution was selected which offered an Accounting degree. The list of institutions utilized for each application can be found in Table 2 below:



TABLE 2.

# List of applications and randomly selected institutions utilized in the study (n=15)

Application	Institution	Institution Home URL
ApplyMaine	University of Maine at Augusta	https://www.uma.edu/
ApplyMontana	University of Montana	https://www.umt.edu/
ApplyTexas	Texas Christian University	https://www.tcu.edu/
California State System	Cal State Dominguez Hills	https://www.csudh.edu/
CUNY	Queens College	https://www.qc.cuny.edu/
Coalition for College	North Carolina State University	https://www.ncsu.edu/
Common Application	Seton Hall University	https://www.shu.edu/
Common Black College	Tuskegee University	https://www.tuskegee.edu/
Connecticut State	Asnuntuck Community College	https://asnuntuck.edu/
Minnesota State	MSU Moorhead	https://www.mnstate.edu/
Penn State	Penn State Altoona	https://altoona.psu.edu/
SUNY	Stony Brook University	https://www.stonybrook.edu/
Universal College	University of Charleston	https://www.ucwv.edu/
University of California	UC Davis	https://www.ucdavis.edu/
University of Wisconsin	UW River Falls	https://www.uwrf.edu/



# Results: Comparing 2018/2019 to 2020/2021 Metrics

To begin, Table 3 below displays comparative descriptive statistics between the 2018/2019 exploratory evaluation of ApplyTexas against the four other application systems.

### TABLE 3.

Comp	arative	aescriptive s	tatistic	s between z	018/2019 an	a 2020/2021 r	eports
Application	Word Count	Readability	Clicks	Time (est.)	Translated?	Web Accessible?	Mobile Optimized?
2018/2019 Apply Texas	14,692	14.6 <sup>th</sup> grade	87	50 minutes	No	No - 97 errors	No
2020/2021 Apply Texas	8,281	11.9 <sup>th</sup> grade	172	70 minutes	No	No – 21 errors	No
2018/2019 Coalition Application	6,407	14.2 <sup>nd</sup> grade	56	45 minutes	No	No - 164 errors	Yes
2020/2021 Coalition Application	8,503	10.5 <sup>th</sup> grade	458	110 minutes	No	No – 137 errors	Yes
2018/2019 Common Application	7,990	9.7 <sup>th</sup> grade	146	45 minutes	No	No - 325 errors	Yes
2020/2021 Common Application	4,885	12.8 <sup>th</sup> grade	231	90 minutes	No	No – 117 errors	Yes
2018/2019 Universal College Application	3,872	11.9 <sup>th</sup> grade	39	35 minutes	No	No - 135 errors	No
2020/2021 Universal College Application	7,401	13.4 <sup>th</sup> grade	85	60 minutes	No	No – 20 errors	Yes

#### Comparative descriptive statistics between 2018/2019 and 2020/2021 reports

Given the data in Table 3, the 2020/2021 versions of all application systems changed, suggesting that postsecondary application systems are updated from year to year. This is a unique finding of this study, as transfer students or students completing postsecondary applications across multiple years may encounter different or updated versions of the application, possibly compounding the difficulty in completing the application. Specific to ApplyTexas, data in Table 3 suggests the 2020/2021 version became shorter (by word count) and more readable than its 2018/2019 counterpart, while also becoming more web accessible for people with disabilities. However, ApplyTexas became longer by click and time, while also not being translated into a language beyond English or mobile optimized.



Comparatively, all other application systems became longer and more difficult across several metrics. Paradoxically, the Coalition for College Application became much easier to read, shaving roughly four grade levels of reading comprehension difficulty between the 2018/2019 version (14.2<sup>nd</sup> grade level) and 2020/2021 version (10.5<sup>th</sup> grade level). However, the Coalition for College Application is now much more complex by click, requiring a minimum of 458 mouse clicks to complete compared to the 2018/2019 version which only required 56 mouse clicks. This is likely due to the Coalition asking for self-reported high school grades, adding many additional mouse clicks and fillable forms to the application that were not required in previous iterations of the application. In all, given current U.S literacy statistics suggesting U.S. adults read and comprehend at the 8<sup>th</sup> grade level, these results suggest many prospective postsecondary students and their support networks would struggle to read and comprehend how to apply for admission using the application systems in Table 3. Additionally, no applications were translated beyond English, none are entirely web accessible for people with disabilities, and few are not mobile optimized, compounding the difficulty in completing these applications.

### **Results: 2020/2021 Application Systems**

Table 4 displays comparative metrics across all 2020/2021 applications in this study's sample (n=15).

Data in Table 4 suggests the longest application by word count was Penn State's (12,579 words), while the shortest was ApplyMaine (726 words). This 11,500-word gap is notable, as the synthetic student profile information was unchanged between applications, and each application was used to apply the same degree plan: a bachelor's degree in Accounting. From here, this study indicates that postsecondary applications are written at dramatically different lengths, even though the applications are completed to seek the same degree. There were also marked gaps between the simplest and most difficult application to read. The Common Black College Application was written at the 15.2<sup>nd</sup> grade reading level compared to the SUNY Application (ApplySUNY), which was written at the 9<sup>th</sup> grade level. Here, this study also suggests that different applications are more or less difficult for the average prospective student to read and comprehend, even though the prospective student is seeking application to the same degree program.

Across all metrics, considerable gaps were present, including minimum clicks to complete the application, overall time to application completion, and web accessibility of the application for people



with disabilities. The Coalition for College application required 458 clicks to application completion, whereas the Connecticut State Colleges & Universities application only required 51 clicks. The Coalition for College application also required roughly 110 minutes for the application to be completed (up to payment submission screen), whereas both the Common Black College Application and Connecticut State Colleges & Universities application only required 30 minutes to completion. Similarly, both ApplyMaine (2 web accessibility errors) and the Minnesota State System Application (10 web accessibility errors) were deemed web accessible for people with disabilities, whereas other application systems featured hundreds of web accessibility errors, likely rendering these applications inaccessible for people with disabilities.

#### TABLE 4.

Application	Word Count	Readability	Minimum Clicks	Time (est.)	Translated?	Web Accessible?	Mobile Optimized?
ApplyMaine	726	11.8	135	15 minutes	No	Yes – 2 errors	Yes
ApplyMontana	2,417	11.6	130	30 minutes	No	No – 86 errors	No
ApplyTexas	8,281	11.9	172	70 minutes	No	No - 21 errors	No
California State System	7,070	12.5	326	60 minutes	No	No – 117 errors	No
CUNY	1,760	9.6	94	30 minutes	No	No – 166 errors	No
Coalition for College	8,503	10.5	458	110 minutes	No	No – 137 errors	Yes
Common Application	4,885	12.8	231	90 minutes	No	No – 117 errors	Yes
Common Black College	1,951	15.2	95	20 minutes	No	No – 202 errors	Yes
Connecticut State	1,711	12.6	51	20 minutes	No	No - 119 errors	Yes
Minnesota State	3,147	12.3	59	30 minutes	No	Yes – 10 errors	Yes
Penn State	12,579	13.4	316	100 minutes	No	No – 43 errors	No
SUNY	2,090	9.0	64	30 minutes	No	No – 102 errors	No
Universal College	7,401	13.5	85	60 minutes	No	No – 20 errors	Yes
University of California	7,060	10.8	209	90 minutes	No	No – 91 errors	Yes
University of Wisconsin	2,676	10.6	150	30 minutes	No	No – 54 errors	Yes

An Empirical Analysis of the ApplyTexas Postsecondary Application



Regarding the length of the application by question or fillable form, Table 5 below displays the number of fillable forms and information required to complete a profile to complete an application across all application systems in this study.

#### TABLE 5.

### **Overview of profile creation information required within postsecondary applications (n=15)**

Application	Fillable Forms: Account Creation	Required Account Creation Information
ApplyMaine	3	email, password, and password confirmation
ApplyMontana	10	email, cell phone, password, password confirmation, text agreement, username
ApplyTexas	55	name, date of birth, place of birth, grade level, citizenship, email, permanent address, physical address, phone numbers, emergency contacts, race, gender, password, password confirmation, captcha verification
California State System	16	name, email, phone number, text agreement, username, password, password confirmation, terms and conditions, EU agreement
CUNY	8	name, date of birth, gender, email, username, password, password confirmation
Coalition for College	7	name, email, password, confirm password, date of birth, terms agreement
Common Application	15	name, email, password, confirm password, phone number, address, date of birth, EU location, student type, 3 questions for terms of service
Common Black College	6	name, email, phone, password, password confirm
Connecticut State	16	name, email, phone number, text agreement, birth date, college, entry term, student type, academic area of interest, academic program of interest, password, password confirmation
Minnesota State	6	name, email, password, password confirmation
Penn State	21	name, birth date, email, mailing address, email verification, policy agreement, password, password confirmation
SUNY	9	name, birth date, email, email confirm, password, password confirm, accept terms of service
Universal College	8	name, birth date, email, password, password confirm, security question, security answer
University of California	5	name, email, email confirm, password, accept terms
University of Wisconsin	8	name, email, password, password confirmation, cell phone, text agreement

Perhaps an afterthought as part of the postsecondary application process, this study finds that ApplyTexas has the most complex and information-intensive profile creation process for students to access the application itself, requiring a student to complete 55 fillable forms and provide detailed



personal information. In contrast, ApplyMaine and the University of California System application required little information to create a profile to access the application, with ApplyMaine only requiring an email and password, while the University of California System application required a name, email, password, and an acceptance of user terms. Here, these results suggest many students may struggle to complete a profile to access a postsecondary application, placing perhaps unnecessary hurdles toward application completion. Moreover, many students may see applications such as ApplyTexas as requiring too much information before the application starts, leading that student to use a different application system with a lower bar of information access, such as Universal College Application, which requires much less information to complete a profile and access the application itself.

To explore other measurements of application difficulty both as the application is written and how the application integrates technology, Table 6 displays webpage, byte size, and auto save results.

By length in terms of webpages, ApplyMaine (1 webpage) and the Connecticut State Colleges & Universities application (9 webpages) were the shortest applications across the entire sample. Comparatively, the Coalition for College (79 webpages) and the Penn State System application (71 webpages) were the longest, implying that students may experience application fatigue or may struggle to load the entire application over a long period of time if they do not have access to high-speed Internet. By application question, the Minnesota State System application was the shortest, requiring only 27 mandatory questions to complete the entire application, whereas the Coalition for College application contained 259 required questions. For the purposes of this study, "required questions" were those that must be completed before advancing to the next webpage of the application, making it impossible to complete the application without answering every "required question." Similarly, the Coalition for College application also featured the most required and optional questions (363 questions), while the Connecticut State Colleges & Universities (62 questions) and SUNY applications (67 questions) were the shortest by question. ApplyTexas held the middle ground at 67 required and 168 overall questions to complete the Texas Christian University version of the 2021/2022 ApplyTexas application.



TABLE 6.

		period			
Application	Application Webpages	Application Questions: Required	Application Questions: Required and Optional	Average Byte Size (in kb)	Autosave?
ApplyMaine	1	55	>75	941	Yes
ApplyMontana	>19	64	>115	2,080	No
ApplyTexas	>22	67	>168	0.083	No
California State System	>50	175	>199	527	No
CUNY	>21	45	>100	94	No
Coalition for College	>79	259	>363	2,400	Yes
Common Application	>48	136	>182	1,110	No
Common Black College	>16	62	>85	3,360	No
Connecticut State	>9	44	>62	11	No
Minnesota State	>29	27	>72	8	No
Penn State	>71	196	215	341	No
SUNY	>27	34	>67	739	No
Universal College	>21	51	>241	170	Yes
University of California	>62	131	>154	528	No
University of Wisconsin	>59	83	>94	184	No

# **Overview of application composition and technology integration** within postsecondary applications (n=15)

Regarding technological elements, the 2021/2022 version of ApplyTexas was by far the smallest application by byte size, with its average application webpage written at fewer than 0.1 kilobytes per webpage. This finding suggests that ApplyTexas should quickly load across nearly any Internet bandwidth speed, rendering it accessible for people using low-speed or dial-up Internet connections. Both the Minnesota State System and Connecticut State Colleges & Universities applications were also written in an average byte size of fewer than 11 kilobytes per webpage, rendering it a small and accessible application for low-speed Internet connections. Inversely, the Common Black College application (3,360kb), the Coalition for College application (2,400kb), and ApplyMontana (2,080kb) were the largest applications by byte size, potentially rendering these applications difficult to complete



because of their average webpage load speeds across low-speed Internet connections. For instance, 3G Wi-Fi is considered a standard mobile Internet speed for cellular devices, and 3G speed allows for anywhere between 400kbps or 4,000kbps depending on the strength of the wireless signal (Segan, 2015). To put this speed into the context of this study, the Coalition for College application included a minimum of 79 webpages at the average size of 2,400kb. Extrapolating those size measurements, it may take a student using a 3G cellular connection nearly 8 minutes of Internet load time to merely load the webpages, not including the time it takes to complete each fillable form on each webpage (79 webpages\*2,400kb/400kbps/60 seconds per minute). Inversely, students using 3G or lower cellular connections could load each webpage of ApplyTexas almost instantaneously, lowering the technological bar of access to the application itself, even though ApplyTexas was not mobile optimized.

Finally, only three application systems employed autosave technologies (ApplyMaine, Coalition for College, and Universal College Applications). This finding is problematic, especially for longer applications that include webpages with multiple fillable forms/questions on those webpages. During the application process, students may have their application interrupted by poor Internet connections or outages, electronic devices with poor battery life, or simply not having all of the required information for their application, such as an essay or their high school grades. In these cases, a student may benefit from an application that autosaves their progress to ensure that an inadvertent disconnection—or the student getting distracted or forgetting to save—does not derail a student's application.

### **Other Observations**

Akin to the 2018/2019 ApplyTexas exploratory report, there were other application-specific observations that could influence how easily, quickly, or accurately a student may complete an application. Of these observations, several are related to required content and questions, while other observations concern technological elements or automatically generated communication after the application is submitted.

### **Demographics**

Although basic demographics may seem necessary to complete a postsecondary application, many applications did not require students to disclose personal demographics. For example, the CUNY application did not require any parental information and Seton Hall's version of the Common Application, the University of California System, the Universal College Application, and the Minnesota State System application did not require any student demographics (race, gender, religion, criminal



history). Similarly, many applications did not ask or did not require military history, such as the University of Wisconsin System application.

Inversely, the SUNY application required citizenship status, the California State System application asked for but did not require a family's adjusted gross income (AGI), and the Common Black College application required nearly all demographics, including military history, first generation in college student status, and a student's marital status. This finding indicates that students may experience the disclosure of an uncomfortable amount of demographic information within some applications, but simply not be asked or be required to disclose much demographic information at all within other applications. As a result, application systems—and individual institutions—should assess how much information they are asking students for, what information is absolutely necessary to glean from the application, and what information students feel comfortable disclosing to ensure that students are comfortably completing the application.

### **Social Security Numbers**

Several applications required a student's social security number (SSN) to advance in the application or required a student to acknowledge that they do not have one. The Common Black College application, the California State System application, and the CUNY application required students to either enter an SSN before advancing or clicking a box to acknowledge that the student does not have an SSN. All other applications did not require a student to input an SSN or acknowledge a lack of an SSN, potentially rendering these applications more inclusive of students without SSNs, especially undocumented students living in the United States.

### **COVID-19 Questions**

This study was completed amidst the COVID-19 global pandemic in early 2021. Several applications asked COVID-19 related questions, primarily assessing a student's emergency needs and if their academic, social, personal, or economic situations were substantially altered as a result of the pandemic. Three applications—ApplyMaine, the Coalition for College application, and the Common Application—all asked this type of question, but an answer was not required to complete the application.

### **Technological Elements**

Several state system applications—ApplyMontana and the California State System—used Liaison (Liaison International, 2021) to host their applications, suggesting these applications are not



administrated by these systems, but rather these systems rely on a third party to administer the application. The same can be said for the Connecticut State Colleges & Universities application, which is hosted by Ellucian (Ellucian Company, LP, 2021). Inversely, it seemed as if the University of Wisconsin System, CUNY, and SUNY systems all administered their applications, possibly providing a bit more control over application settings and features. Future research should investigate how institutions, states, and systems partner with third-party companies to administer application systems and what institutions can learn or benefit from when administering their own application or contracting it out.

Most applications allowed for self-reporting of grades, while the University of Wisconsin System allowed for a PDF upload of a transcript, circumventing a transcript upload service and instead allowing students to upload transcripts. As will be discussed in the qualitative section of this study, there exists a divide between allowing students to self-report grades—which is faster to render an admissions decision but perhaps less accurate—and integrating a transcript upload service to allow students, guidance counselors, or other verified entities the ability to upload a student transcript on a student's behalf. A transcript upload service may be more professional and result in a more accurate student application, but there may be lags in this service, as it requires the application to incorporate a transcript upload service in addition to the human resources necessary to locate the transcript and upload it through the system.

### **Communication Follow Up**

Since completing all application systems in early January 2021, the synthetic student email account for Willie College has received the following 'nudge' emails (as of March 2, 2021):

- 14 emails from Seton Hall University (Common Application)
- 9 emails from UW-River Falls (University of Wisconsin System application)
- 8 emails from Stony Brook University (SUNY system application)
- 3 emails from Asnuntuck Community College (Connecticut State application)
- 3 emails from the Penn State System (Penn State System application)
- 2 emails from the CUNY system
- 1 email from California State-Dominguez Hills (Cal State System application)

Meanwhile, the synthetic student profile email account has not received any email correspondence from any of the other application systems, including ApplyMaine, ApplyMontana, ApplyTexas, the Common Black College application, the Minnesota State System application, and the University of



California System application. Additionally both Seton Hall University (Common Application) and Penn State (Penn State System Application) sent print mail to the researcher's home address, suggesting that there are processes to send applicants print mail if they stop out of these applications.

Here, these findings suggest that students may or may not be reminded to complete their application, depending on the application and if they reached the school specific questions on the application. Additionally, students may or may not have additional information shared with them from their prospective institutions to provide them with more context to make their decision, possibly helping students understand where to enroll, as many students may complete more than one application. As a result, both prospective students and institutions themselves should understand how application systems can integrate automated communication and how students prefer to be contacted during and after the application, including specific messaging, timing, mode of communication, and frequency.

# **Qualitative Analysis**

To increase the rigor of the study and better understand how practitioners view ApplyTexas, a series of semi-structured qualitative interviews were conducted in early 2021. The researcher interviewed at least one enrollment management professional (Director level or higher) from each Texas public university system (University of Houston, University of North Texas, University of Texas, Texas A&M University, Texas State University, and Texas Tech University Systems). Moreover, the researcher interviewed several enrollment management professionals working at two-year institutions in Texas (Alamo Colleges, Tarrant County College, Austin Community College). The decision was made to discuss ApplyTexas with enrollment management professionals working in public institutions, as Texas state law requires public institutions to accept ApplyTexas, whereas private institutions are not held to the same legislative mandate (Admission Application Forms, Tex. Educ. Code Ann. § 51.761 of 1997, Amended 2017).

Each interview lasted around one hour, and in agreement with the interviewees, no interviewee responses will be connected to any interviewee. This sense of anonymity provided the interviewees a sense of comfort and allowed for in-depth responses and honest reporting of attitudes toward ApplyTexas. Audio from the interviews was not recorded, as the interviewer took notes and followed the subsequent interview protocol:

- What are your impressions of the ApplyTexas application?
- What are ApplyTexas' strengths?



- What are ApplyTexas' weaknesses?
- What should remain the same about ApplyTexas?
- What should be changed about ApplyTexas?

# **Findings: Professional Perspectives on ApplyTexas**

After conducting interviews with enrollment management professionals working for Texas' public institutions of higher education, it became clear that professionals held both positive and negative views of ApplyTexas, its advisory committee, and how the application has or has not changed since its inception. Encompassing all questions from the interview protocol, this section is divided thematically into responses focused on 1.) The ApplyTexas application itself, 2.) The roles and responsibilities of the ApplyTexas Advisory Committee, 3.) Administrative functions of ApplyTexas, and 4.) The strengths and future of ApplyTexas.

### ApplyTexas: The Application as Written

Professionals unanimously agreed that the current iteration (early 2021) of ApplyTexas is dated, not user friendly, and too long for most students to complete in one sitting. Professionals unanimously remarked that ApplyTexas has not maintained pace with current technology and has only been updated when institutions have wanted to add or subtract questions from the application. This direction has resulted in ApplyTexas maintaining a simple, archaic user experience that may not be attractive to prospective students and has been made too complex at the question-level by institutions consistently adding and changing questions to fit specific institutional needs.

Moreover, professionals expressed frustration that the ApplyTexas has not been mobile optimized or translated into Spanish, two enhancements that had been suggested for years by the Advisory Committee but had never materialized. Given these two limitations, professionals expressed concern that students who rely on their mobile devices to complete postsecondary processes and students whose first language is Spanish—or whose support network speaks Spanish—would face unfair hurdles on their path to completing ApplyTexas and pursuing higher education. Several professionals explained that over 30% of their first-year applications were completed on mobile devices, suggesting that many Texas students rely on mobile devices to complete their postsecondary applications. Additionally, nearly all professionals repeatedly reinforced the fact that Texas' demographics have been rapidly changing and institutions of higher education want to be inclusive and supportive of Spanish speakers across the state and country. In many professionals' view, the fact that ApplyTexas remains



English only is unacceptable and sends the wrong message to the many Spanish speakers pursuing a higher education in Texas.

Regarding application questions, most professionals claimed that ApplyTexas has become too long with too many institution-specific questions that students may struggle with. However, some professionals praised ApplyTexas for being flexible and allowing institutions to ask specific questions to help with internal institutional enrollment management and financial aid functions. This tension between institutional flexibility and the information burden placed on students completing the application—was apparent throughout many of the responses from professionals. In one regard, professionals insisted that they needed to ask students institution-specific questions to allow enrollment management and financial aid staff to connect with students for a multitude of institutional functions: invitations to new student orientation, first-year programming and grouping, scholarship awarding, and both academic and financial aid advising.

However, this shifting of an information burden to the student during the application renders it more difficult for students to complete the application itself. Here, professionals claimed they are continually faced with a difficult choice. Institutions can ask students for a wealth of information on the front end in hopes they complete the application and can be onboarded and recruited quickly by an institution, or, institutions can require less information from students on the front end and rely on their institutional staff to gather prospective student information in another way, such as nudging admitted students to complete an institutional profile after they have applied. In this case, most professionals asserted that they needed to maintain their institution-specific questions, as it would be unrealistic and extraordinarily difficult to capture student information after a student has applied. As a result, without major institutional changes, ApplyTexas may remain long and complicated for many students applying to four-year institutions, given the necessity for these institutions to capture information within the application instead of after the process.

Finally, several professionals suggested that institution-specific questions be shifted toward the beginning of the application, as students now have to select and institution and program, then complete the basic section of ApplyTexas, and then answer institution specific questions at the end. As of March 2021, ApplyTexas is written in the following order: profile creation, institution selection, general application questions, and institution-specific questions. Many professionals claimed that because of this application arrangement, the logic of the questions is not clear and requires students to give institution-specific information twice in two different sections of the application. From here, nearly all



professionals agreed that students should select institutions first, and then only see the institution specific questions required after that selection, drastically cutting down the length of the application and removing much of the confusion surrounding institution-specific questions.

### The ApplyTexas Advisory Committee

Since the inception of the application, a committee has existed to steer the direction of the Texas Common Application and then ApplyTexas. Professional members from both two- and four-year institutions have held committee membership, including postsecondary student representatives and staff members from Texas high schools and the Texas Higher Education Coordinating Board. Multiple professionals who were interviewed for this study have also held ApplyTexas Advisory Committee membership as far back as 2010, providing a historical perspective on how the committee has worked to change—or not change—ApplyTexas and why certain updates or changes could or could not be made.

Unprompted by the interview protocol and the interviewer, multiple professionals spoke about the power of the Advisory Committee and how, over time, the Advisory Committee held less and less power as it related to the overall direction of ApplyTexas. Since the inception of the committee, professionals asserted that institutions have been given considerable latitude to change and add application questions and customize the application within the technological parameters of ApplyTexas. Yet, professionals explained that bigger picture planning and long-term strategic initiatives were often halted, and the committee itself had much of its power revoked over the years. This power struggle resulted in many professionals feeling disenfranchised, understanding that public institutions were paying to use ApplyTexas but did not have control or input as to the future of the application and how it may be technologically enhanced. This tension in part, according to professionals, led to several public institutions deciding to accept other application systems, such as the Common Application.

However, professionals working for two-year institutions made it clear that due to budgetary restraints and lower levels of pre-enrollment information required from students pursuing two-year institutions, ApplyTexas was, is, and will be their preferred application. Paradoxically, ApplyTexas Advisory Committee members from two-year institutions often felt that the committee worked to optimize ApplyTexas for the traditional high school graduate and FTIC student pursuing four-year institutions, often discussing two-year institutions as an afterthought. Here, several two-year institutional professionals felt that ApplyTexas Advisory Committee must work to support students seeking two-year institutions for two main reasons: 1.) two-year institutions typically enroll higher numbers of low-income students, students of color, and non-traditional adult students than four-year



institutions do, and 2.) enrollment in two-year institutions and transfer to four-year institutions is part of the strategic goals within the THECB's 60x30TX Plan, necessitating a strong pipeline between two-year and four-year institutions in Texas.

Professionals from two-year institutions also explained that each application received through ApplyTexas costs between \$0.40 and \$0.50, a price structure that most professionals from four-year institutions also mentioned. Conversely, many professionals from four-year institutions claimed that each application received through the Common Application and similar application systems can cost anywhere between \$4.00 and \$7.00. In the case of the Common Application and similar applications, the cost is too prohibitive for two-year institutions to adopt these applications, as two-year institutional professionals remarked that many students applying to two-year institutions may prefer a four-year institution but need a backup plan in case they do not gain admission. As a result, many applications received by two-year institutions are from students who ended up at four-year institutions, yet the twoyear institution still must bear the cost of the application.

Moreover, professionals from two-year institutions asserted that four-year institutional professionals often times adopted new application systems, such as the Common Application, without considering the ramifications for two-year institutional enrollment and the inter-Texas transfer pipeline. For instance, a student can complete ApplyTexas and send it to any number of two- and four-year institutions in Texas, and when the time comes to transfer, the student logs back into the same portal and can see all of their Texas-specific options for transfer. Yet, if a student completes the Common Application, they do not have access to the same transfer functionality, in addition to having to potentially circle back to completing ApplyTexas, instead of simply using ApplyTexas in the first place. Here, some two-year institutional professionals felt that the ApplyTexas Advisory Committee could have better supported the needs of two-year institutions and the THECB's strategic 60x30TX Plan by focusing on how ApplyTexas could be improved with access and transfer in mind.

### Administrative Functions of ApplyTexas

Perhaps one of the strongest and unanimous themes of the interviews, all professionals agreed that the reporting and administrative functions of ApplyTexas are poor and do not push timely and relevant information to enrollment management offices at institutions in Texas. Many professionals cited the Common Application has having particularly strong reporting mechanisms that push information to professionals, instead of professionals having to access the ApplyTexas administrative suite to manually pull the information they need. In fact, professionals effusively praised the Common



Application for its timely, accurate, and user-friendly reporting that can be customized to what an institution wants to see on a daily, weekly, monthly, or yearly basis. Although not part of the interview protocol, professionals consistently noted that one of the major weaknesses of ApplyTexas was its lack of automated reporting to inform how enrollment management professionals work to recruit and yield Texas students.

### The Strengths and Future of ApplyTexas

Many professionals praised ApplyTexas for its ubiquity among Texas students, their families, and high school counselors, its cost effectiveness, and its ability to allow students to apply to an undergraduate institution, transfer between institutions, and pursue graduate studies all in one application. Moreover, professionals lauded ApplyTexas' Advisory Committee, both past and present, for trying to work together for many years despite not reaching universal agreement on any number of topics during committee meetings. However, attitudes diverged when discussing the future of ApplyTexas.

Several professionals—those working in large, selective public four-year institutions—reasoned that ApplyTexas has not been a viable option and ApplyTexas' immutable nature necessitated a shift toward accepting other application systems. In turn, many professionals reasoned that they felt compelled to accept other applications—such as the Common Application—because out-of-state competitors were accepting it. Here, a movement toward other application systems was not a product of any inadequacy of ApplyTexas: the market had changed, and institutions were adapting to survive.

For two-year institutional professionals, ApplyTexas will continue to be a low-cost, familiar application system that dozens of institutions will continue to rely on into the future. However, two-year institutional professionals were weary of cost changes if larger institutions, mainly four-year institutions, did not promote the application and accepted fewer applications through ApplyTexas, possibly catalyzing a pricing change that two-year institutions may have to bear. Moreover two-year professionals felt that if movement away from ApplyTexas continued, that more Texas students who are a good fit for two-year institutions may feel pressured to apply to institutions of poor fit or out-of-state institutions through another application system, such as the Common Application. In all, two-year professionals expressed gratitude for ApplyTexas' pricing and notoriety but were also concerned about what the future holds.

Ultimately, all professionals from two- and four-year institutions agreed that in order to survive in a highly competitive higher education marketplace, ApplyTexas needed to change with the times. The



section that follows is a series of suggested enhancements to ApplyTexas, drawn from the application analysis and qualitative analysis sections of this study.

## Paths Forward: Enhancing ApplyTexas for the 21<sup>st</sup> Century

Given results of the application analysis and insights from many professionals working in public institutions in Texas, several enhancements are recommended to increase the simplicity, accessibility, and usability of ApplyTexas. Future iterations of ApplyTexas should:

- 1) Be updated with a new user interface and experience that embraces modern technology, including autosaving, automated nudging, and file uploads. In earlier sections, it was demonstrated that the landing page and user interface of ApplyTexas has not undergone a substantial change for over ten years. Other applications look and feel more up-to-date and user friendly, including larger fillable forms, modern fonts, and graphics. Beyond user experience, technological features such as autosaving and automated nudging to remind students to complete their applications should be integrated into ApplyTexas. Other application systems include both autosaving and automated nudging, and ApplyTexas should as well. Moreover, other applications allow for students and counselors to upload transcripts, letters of recommendation, resumes, essays, and other pertinent documents. ApplyTexas should allow file uploads to streamline the process and cut down the communication required between the student and institution. These features render the user experience more in line with what college students and Internet users have come to expect in the 21<sup>st</sup> century. However, ApplyTexas should strive to maintain its current byte size, as the March 2021 version of ApplyTexas loads quickly and reliably.
- 2) Be mobile optimized to allow students to complete ApplyTexas easily on mobile devices, including cell phones and tablets. Several other national applications embrace mobile technology, and several Texas professionals interviewed in this study asserted that around 30% of their first-year students completed their applications on their phone. Even though many prospective students may prefer laptops or desktops for their applications, a large percentage of students, many of them low-income, may rely on their phone for many postsecondary processes, including applying for admission. Moreover, Federal Student Aid has already embraced mobile platforms by publishing their MyStudentAid app, allowing students to complete the Free Application for Federal Student Aid (FAFSA) entirely on their phones. ApplyTexas should do the same and be mobile optimized.
- 3) Be translated into Spanish. Although the predominant language of instruction at Texas' institutions of higher education is English, many of Texas' students and their support networks speak Spanish as a first language in the home. Texas' students and their support networks should not feel as if their language is not valued, and moreover, ApplyTexas should embrace the linguistic diversity of Texas and offer Spanish-



language applications. Harnessing modern technology, institutions could receive English versions of the admissions application on the submission end, but students could access a Spanish language version that would allow for support networks to help their students better access the higher education system in Texas.

- 4) Be written with ADA compliance in mind. Although drastically improved from the 2018/2019 version of ApplyTexas, the 2021/2022 iteration of ApplyTexas was still not entirely ADA compliant. Compliance should be at the top of the priority list, especially as ApplyTexas should also be mobile optimized, presenting more compliance challenges across different device types (laptops, cell phones, tablets, etc.).
- 5) Lower the bar of access by simplifying the profile creation process. As the application analysis section of this study demonstrated, asking students to complete 55 fillable forms to merely create a profile in order to start an application is far too high of a bar for many students to clear. Future iterations of ApplyTexas should require a student's name, a valid email, and a password. This way, students enter ApplyTexas much sooner and may not be as tempted to stop during the profile creation process.
- 6) Ask less of students and more of institutions. As the 2021/2022 ApplyTexas application is written, the information burden is clearly on the student—the application requires the student to disclose a wealth of information at a count of 55 fillable forms to complete a profile and 67 required questions across 22 webpages to complete the application. By comparison, ApplyMaine only requires a student to disclose an email and password to create a profile. Similarly, the SUNY application only asks for 34 required questions, and the Minnesota State System application only asks for 27 required questions. From here, institutions should explore ways of capturing student information after the application is submitted, possibly driving up application numbers given that the application itself would be made shorter, and thus, easier to complete.
- 7) Be reorganized so that institution questions come first and are adaptive to the institutions a student selects. Although institutions want to maintain control over the questions they require within ApplyTexas, the application itself could be reorganized so that students select their institutions and see those questions first, followed by anything else that may be required at the discretion of the ApplyTexas Advisory Committee. By front-loading institutional questions, students will not bounce back and forth between basic application questions and institutional questions, smoothing the process and producing an application that is more linear and logical.
- 8) Nudge high school counselors to upload transcripts. After asking a student for their high school within the ApplyTexas application, the high school could receive a notification that one of their students requires a transcript or diploma to complete their ApplyTexas application. Then, counselors could upload transcripts or diplomas on the behalf of the student, potentially cutting down the time it takes for institutions to receive official transcripts to make admissions decisions. Now, counselors can access



ApplyTexas data through the Counselor Suite to track application progress. These functions should be expanded to document uploading to expedite the application process for the student.

- 9) Be consistently analyzed. Starting on the application side, all professionals agreed that ApplyTexas captures an immense amount of data—that data should be analyzed to understand completion trends, demographic changes, and specifically where students stop out of the application to understand how to continue refining ApplyTexas from a student's perspective.
- 10) Integrate ADVi to allow students to have their ApplyTexas questions answered in real time using artificial intelligence. Many institutional websites feature chatbots and other forms of artificial intelligence to help students complete processes online. If ADVi proves viable and can be integrated into ApplyTexas, students could ask ADVi questions throughout the application, including asking for help directly from institutions. If a student encounters an unclear question for a specific institution, they could potentially text ADVi and receive information for how to answer the question correctly or contact the institution.
- 11) Nudge students to complete the application if they stop out. Several application systems nudged the synthetic student email with application completion reminders for weeks after the applications were started. Similarly, both Seton Hall University (Common Application) and the Penn State System sent print mail to the researcher's home address within weeks of starting the applications but not finishing. Although print mail is likely more costly than email, ApplyTexas should consider building nudges within the application, including a text, email, and print nudge (if cost effective) to remind students to complete the application within a certain window (one week after application start, etc.). These reminders would likely increase the number of completed applications, and thus, possibly increase enrollment in Texas' institutions of higher education.

## **Closing Thoughts**

As one of the oldest common application systems in United States higher education, ApplyTexas has a proud legacy supported by state legislation and countless professionals working for Texas' institutions of higher education and its students. Lauded for its ubiquity and cost effectiveness, ApplyTexas has opened the gates of higher education to millions of Texas students, many of whom have remained in Texas and continued to support the state's strong economy and workforce. In no uncertain terms, ApplyTexas has and will continue to be an important vehicle for postsecondary access and economic growth in Texas. Now is the time to bring ApplyTexas into the 21<sup>st</sup> century to ensure that Texas remains a leader in U.S. higher education and economic output, supporting the Texas Higher



Education Coordinating Board's 60x30TX Plan for 60% of Texans aged 25-34 to have a postsecondary degree or credential by 2030.

Even though statewide goals and economic growth are surely important, Texas must do right by their prospective and current postsecondary student population; they are the future of Texas. Extending this ethos, ApplyTexas should be simple, intuitive, and truly speak to the modern Texan pursuing higher education. Ideally, the results of this report will catalyze this change to render ApplyTexas a modern, sleek, and effective application that maintains deference to institutional caretaking and continued, meaningful counsel from the Advisory Committee. Striking a balance between student-centricity and institutional necessities will be difficult, but this tension should be seen as a constant effort toward equity and supporting students where they are, whoever they are.

Ultimately, change is on the horizon for ApplyTexas. Even though changing demographics will likely threaten the health of the U.S. higher education in the coming decades, ApplyTexas can work to keep Texans in Texas, never forgetting the decades of work it took for ApplyTexas to take shape in the first place. An application and legacy worth reviving, it is hoped that ApplyTexas can place student equity first and foremost, supporting a bright future of higher education in Texas, owed in large part to the diligence and sacrifices of the past.



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