

 THE RESEARCH AGENDA

Tech-Driven Transitions: Investigating College Applicants' Resource Utilization in the Digital Age of College Applications

By Mark E. Butt

An increasing variety of resources and modalities exist for students beginning the college search and admissions process. Using the theoretical framework of Connectivism, this study investigates the dynamics of resource utilization among college applicants throughout the college search, selection, and application process. Employing a specific inquiry embedded within the Common Application for Fall 2024 enrollment at a highly-selective research university, data were collected from a cohort comprising 28,468 respondents out of 34,617 applications submitted, resulting in a response rate of 82.2 percent. Through a single multiple-choice question with seventeen options, participants were prompted to identify any of the resources they engaged during their college application journey. Examination of responses revealed a discernible hierarchy in resource preference, with college websites, high school counselors, college planning websites and books, social media channels, and immediate family (parent or sibling) emerging as the most frequently cited sources, in respective order. Further, 61.7 percent of resources used were either digital or hybrid modality emphasizing the deeper integration of technology in student resource use. Findings also reveal a critical modality ratio of 2:1:2 of in-person to hybrid to digital resource use. These findings underscore the importance of resources within the intricate college ecosystem, provide insights crucial for supporting prospective college students, and new understandings of institutional resource allocation in the digital era.

In the modern-day ecosystem of American higher education, the choice of a university is not merely a decision but a defining moment for aspiring college students (Perna, *et al.* 2008). During the process of searching and selecting higher education institutions, students encounter a multitude of factors that shape their decisions and eventual outcomes, encompassing economic, cultural, and social resources (Perna 2006; Wolniak and Engberg 2007). Yet, navigating this intricate journey is no simple feat, but a process filled with complexity and uncertainty (Palmer, *et al.* 2004). At the core of this process lies the student utilization of resources, an indispensable process that shapes students' understanding of the educational landscape and informs their decision-making (McDonough 1997). From the conventional guidance of school-based counselors to the digital world of college websites and social media platforms, the battery of resources available to students is vast and multimodal, reflecting both the breadth and depth of the contemporary higher education landscape (Guri-Rosenblit 2014).

Amidst the abundance of information and resources, the dynamics of resource utilization among prospective college students remain ambiguous. While considerable attention is often directed toward the processes by which selective colleges make their admissions decisions, the intricacies and influences of student decision-making presents a conundrum for colleges and universities alike (Hossler and Bontrager 2008). Understanding the factors that influence students' selection and utilization of resources is significant, as it unveils the web of influences that shape students' perceptions, preferences, and pathways in the college search process (Goyette 2008).

Through the process, students are creating a complex web of connections. Each resource within the educational ecosystem serves as a unique conduit through which students learn and navigate the complexities of the college admissions journey. By taking campus tours, engaging school-based counselors, visiting college websites, seeking advice from peers and family, students rely on a diverse array of sources to glean insights and forge connections with prospective institutions (Hoss-

ler and Bontrager 2008). As the landscape of higher education continues to evolve in response to societal shifts and rapid technological advancements, understanding students' resource utilization behaviors is of greater importance (Varga-Atkins, *et al.* 2013). This investigation delves into which resources students are engaging with, focusing on the mechanisms through which learning occurs, whereas previous investigations have primarily focused on identifying the factors that matter to students. By shedding light on these dynamics, this research endeavors to generate a new understanding of the modern-day student behavior around utilization of resources and offer insights for educators, policymakers, school-based counselors, and university administrators alike (Riggert, *et al.* 2006).

Research Question

Which resources, and respective modalities, do prospective college applicants utilize during their university search and selection process?

Literature Review

The process of choosing a college is complex and influenced by various individual, financial, geographic, social, and contextual factors, as extensively discussed in the extant literature (Chapman 1981; Ding 2024; Han 2014; Paulsen 1990; Perna 2006; Wilson and Adelson 2012). Students rely on a multitude of information sources to inform their decision-making process, reflecting the multifaceted nature of college choice (Huntington-Klein 2018). Despite the comprehensive nature of the extant literature on factors influencing college choice, there remains a research void in understanding *how* students acquire information in the digital era about the college process.

While previous research has identified key considerations in college choice, such as academic factors, financial considerations, practical issues, social aspects, and institutional prestige (Audyatis 2021; Burleson 2010; Ceja 2006; Han 2014; Nixon, *et al.* 2021), there is limited information on the specific sources through which students gather information. Goff, Patino, and Jackson (2010) categorized information sources into groups such

as media, social, and direct sources, shedding light on the diverse array of channels through which students receive information about higher education; however, the research excludes much of the technological apparatus that exists today.

Within the literature, school counselors have emerged as some of the most important and influential resources for students navigating the college selection process (Avery 2010; Cholewa, Burkhardt and Hull 2016; Goff, Patino and Jackson 2010; McDonough 1997; Velez 2016). Despite variations across social class, family also play a pivotal role in guiding students, providing valuable insights, resources, and support as students explore their options and make informed decisions about their academic futures (Ceja 2006; Rowan-Kenyon, *et al.* 2008).

Despite the valued and central roles of school counselors and family members, new research is needed to understand the specific roles and impact of various information sources in shaping students' college choices in the digital era. Understanding how students learn about the college process and which resources they prioritize can inform the development of targeted interventions and support services aimed at assisting students in their college search and selection journey. With the findings of this investigation, researchers and practitioners can more effectively reach and support students as they navigate the critical transition from high school to higher education in the age of technology.

Theoretical Framework

Connectivism, proposed by Siemens (2005), redefines learning in the digital age as a networked process where individuals acquire knowledge through dynamic interaction with complex networks of information, resources, and connections. This theory challenges traditional views of learning as an individual, cognitive process, emphasizing instead the distributed nature of knowledge across interconnected networks (Siemens 2005). At its core, Connectivism emphasizes the dynamic exchange of information and collaboration within networked environments, highlighting the importance of networks in shaping learning experiences (Siemens 2005).

Central to Connectivism is the concept of distributed cognition, which posits that cognition extends beyond individual brains and is distributed across the “networked world” (Siemens 2005, 3). In this view, knowledge is not confined to individuals but is distributed throughout the network, with each node contributing to the collective pool of knowledge (Siemens 2005). Learning, therefore, involves engaging with and leveraging the collective intelligence of the network, challenging traditional notions of expertise and authority (Siemens 2005).

In the context of higher education, Connectivism offers insights into how students navigate the college search and selection process in the digital age. With the proliferation of online resources, social media platforms, and digital communities, students have unprecedented access to information relevant to their college search. Connectivism suggests that students learn about colleges through interaction with online communities, peers, and collaborative knowledge creation within digital networks.

Furthermore, Connectivism highlights the importance of developing students' digital literacy skills to navigate and evaluate information within networked environments effectively. Colleges and universities can leverage Connectivist principles to design learning experiences that foster collaboration, knowledge sharing, and active participation in higher education learning journeys. Connectivism provides a timely lens through which to understand and enhance students' engagement with college resources in the modern digital era.

Methodology

This study is an investigation into the resource utilization behaviors of prospective college applicants. The instrument used to collect data was the Common Application. The Common Application is a centralized college application platform used by students to apply to multiple colleges and universities simultaneously. It streamlines the admissions process by allowing students to fill out one application and submit it to multiple institutions, thereby reducing redundancy and simplifying the application process. The Common Application has more than 900 member institutions worldwide, mak-

ing it a widely recognized and utilized tool for college applicants (Common Application 2024).

Data Collection and Sampling

Data collection was facilitated through the inclusion of one multiple-choice question within the Common Application of a single, anonymous, highly-selective research university applying for admission for Fall 2024. The question was optional for applicants. The question was phrased as follows and was included on the member page of the Common Application, which is the section specific to the individual institution.

The university is conducting research on a study of how students learn about college admissions and financial aid. Please identify the resources you used in the university search and selection process. Check all that apply. (This question is optional).

This optional question provided respondents with seventeen choices in the sets, encompassing a diverse array of resources, as delineated below. Students were able to select an unlimited amount of resources (including all, or none) that applied to their search and selection process. The choices given to the students were:

- College Admissions office (in-person)
- College Admissions office (virtual)
- College fairs
- College guidance organization
- College planning websites and books (*e.g.*, College Board, Common Application, Fiske Guide to Colleges, Princeton Review, etc.)
- College websites
- Essay writing coach or editor (paid)
- Essay writing coach or editor (unpaid)
- Extended family (*e.g.*, aunt, uncle, grandparent, etc.)
- Financial Aid offices and resources (including FAFSA and scholarship search, MyIntuition.org)
- Immediate family (parent or sibling)
- Independent counselor (paid)
- Independent counselor (unpaid)
- Social media channels and online forums (*e.g.*, YouTube, Instagram, etc.)

- Test preparation courses or resources
- Virtual campus tours
- Your high school counselor

Respondents were prompted to select all applicable resources they utilized during their university search and selection. At the conclusion of the admissions cycle, data analysis ensued, involving an examination of the frequency and distribution of resource selections among respondents.

Resource Categorization

The choice set of seventeen resources were divided into one of three types of modalities: digital, hybrid, or in-person. Most resources were explicitly stated as a specific modality in the resource type itself; however, in the case that it was not, the hybrid modality was selected if hybrid options were available. For example, a writing coach or college guidance organization might be available in-person or digitally, and therefore the modality is hybrid.

Participants

The initial participant dataset of applicants includes 20,831 females and 13,806 males. Additionally, there are eight occurrences labeled as neither male nor female. It's important to note that the race and ethnicity of students are not known since that information was not visible at the time of the study due to a recent Supreme Court of the United States ruling, which prohibits the consideration of race/ethnicity in the college admissions process (*SFFA v. Harvard* 2023). With respect to citizenship status, there are 8,231 entries for non-U.S. citizens; 1,376 entries for U.S. Permanent Residents (Green Card holders); 24,904 entries for U.S. citizens; and 134 entries with a blank citizenship status. Pertaining to the location of high schools, 77.6 percent of the applicants attended high school in the United States, while 22.4 percent of students were situated outside of the country. In total, the dataset comprises 34,617 entries. Because of the academic reputation of the institution, the academic strength of the participants is considered strong. The mean SAT score was 1476 out of

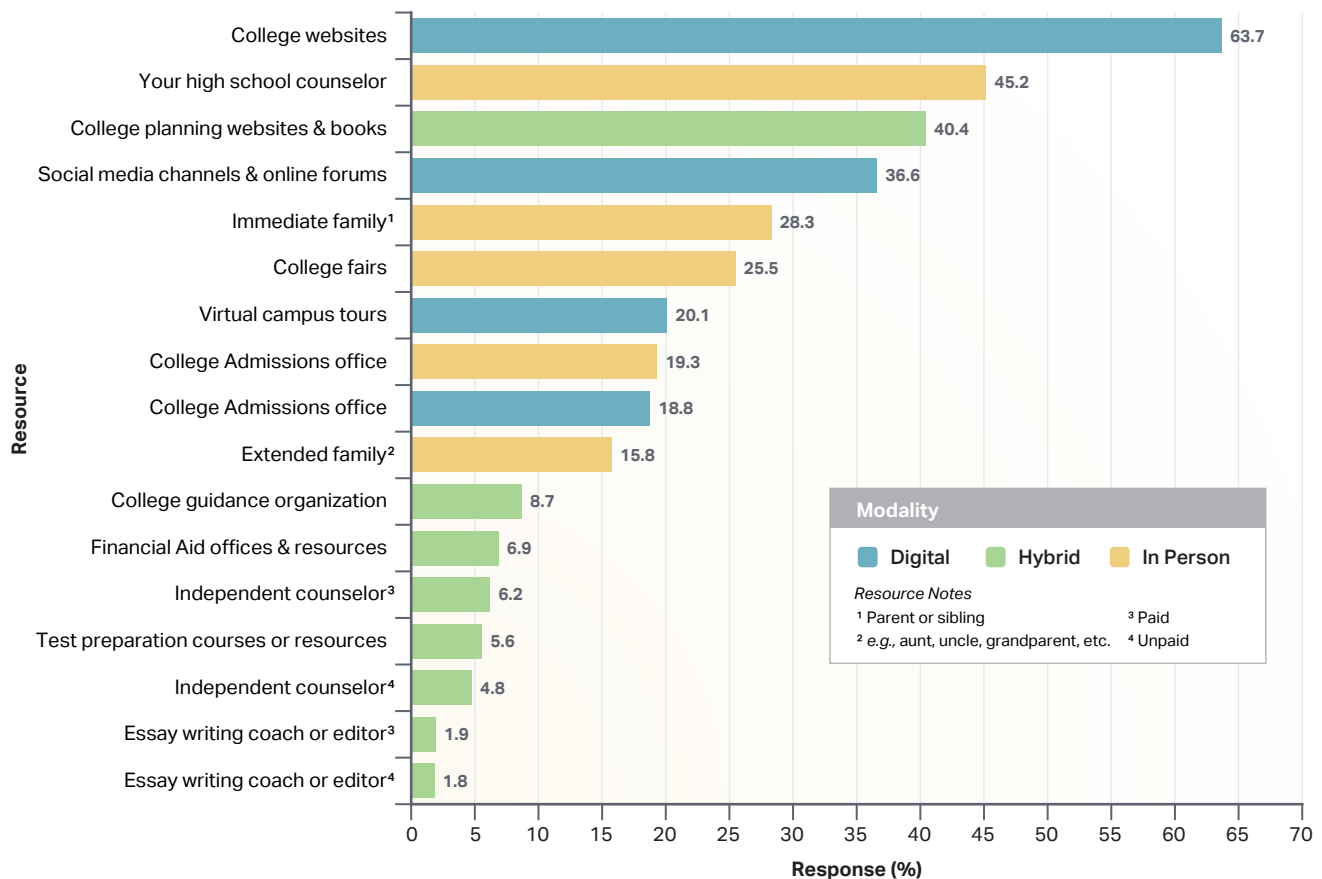


FIGURE 1 ► Resource Utilization as a Percent of Total Applicants

a total possible score of 1600 ($n=17,590$). The number of students who expressed interest in financial aid was 60.4 percent.

Findings

Of 34,617 applications submitted, 28,468 identified at least one resource they used in the college search and selection process, which results in a response rate of the investigation as 82.2 percent. As such, 6,149 (17.8%) students opted not to respond to the question. The descriptive statistics revealed that the mean number of resources students used was four ($\mu=3.98$). Nine students selected all seventeen resources available in the choice set, and the most frequently occurring resource was college websites (22,042). In total, students identified 120,976 resources within a choice set of seventeen

options. Percentages were based on the entire applicant pool to not over-inflate perceptions of resource use.

Figure 1 provides a comprehensive summary of college applicant resource use, including both the frequency and percentage of students who utilized each resource, and categorized by modality. Resources are classified into three main categories: digital, in-person, and hybrid, based on their mode of engagement. Among digital resources, college websites were the most commonly utilized, with 22,042 students (63.7%) reporting their usage, followed by social media channels and online forums, utilized by 12,669 students (36.6%). In contrast, high school counselors were the most popular in-person resource, with 15,635 students (45.2%) seeking guidance from them. Hybrid resources, which combine digital and in-person elements, include college

planning websites and books, utilized by 13,999 students (40.4%), and financial aid offices and resources, utilized by 2,375 students (6.9%). These findings highlight the diverse array of resources students utilize in their college search and selection process, with preferences spanning both digital and traditional avenues.

An analysis of the data presents a breakdown of resource utilization across three categories: digital, hybrid, and in-person. Digital resources constitute the largest proportion, accounting for 39.8 percent of total resource utilization, while hybrid resources represent 21.8 percent. In-person resources make up 38.4 percent of the distribution. Additionally, when combining hybrid and digital resources (the resources available through technology), they collectively account for 61.7 percent of the total resource utilization. A ratio of 2:1:2 can be determined when trying to understand resource utilization of in-person to hybrid to digital. This finding will be further explored as a key theme of the investigation.

Discussion

This investigation unveils seven central themes in students resource utilization that merit exploration and discussion. These themes include (1) the continued rise of digital resources, (2) the popularity of college websites, (3) a continued gap in financial planning, (4) the balance of virtual and in-person campus tours, (5) the continued use of the school counselor, (6) the emergence of independent counseling apparatus, and (7) the 2:1:2 ratio of in-person to hybrid to digital.

The Rapid Rise of Digital Resource Availability

The COVID-19 pandemic accelerated the rapid shift in the landscape of higher education, ushering in an era of increased technological integration and reliance on online resources for both prospective students and colleges (Reynolds and Dhawan 2022). As physical distancing measures necessitated the closure of campuses and the suspension of traditional in-person activities, colleges and universities were compelled to swiftly adapt to digital environments to maintain continuity in educational offerings (Burbio 2020). Consequently, for-

merly in-person resources, such as college fairs, campus tours, and admissions counseling sessions, were forced to transition to digital platforms to reach students effectively (Selingo 2020). But, while colleges were shifting to virtual spaces, students were already fully plugged in. Recent investigations have shown more than half of high school students in 2017 were spending six hours or more on social media (Stolzenberg, *et al.* 2019). In a way, the world was catching up to technology natives, the high school students who have never known a world without iPhones, the internet, and social media. This rapid paradigm shift underscores the growing importance of digital resource utilization in the college search process and are substantiated by these findings.

The rapid growth of digital resources, however, is contingent upon access to stable and reliable internet services. Despite the transformative potential of digital platforms to democratize education, systemic inequities in internet access persist, particularly in underserved communities, both urban and rural (Nicola, *et al.* 2020). Colleges, while hoping to leverage digital resources for the college search and selection process, grapple with the reality that they cannot single-handedly overcome the systemic inequities entrenched in society with respect to internet access (Van de Werfhorst, Kessenich, and Geven 2022). Across various regions of the United States and globally, inadequate technology infrastructure and socioeconomic barriers hinder access to high-speed internet, thereby constraining the transformative power of digital resources (Van de Werfhorst, Kessenich, and Geven 2022). While digital platforms hold promise for greater inclusivity, addressing the broader digital divide remains essential and critical.

College Websites as the Central Hub

College websites serve as the primary gateway to information for prospective students, offering valuable resources and insights into various aspects of campus life, academic programs, and admissions procedures (Ford 2011). As evidenced by the data, with 63.7 percent of students citing college websites as their most frequently utilized resource, it is clear that these online platforms play a central and vital role in the college search and

selection process today. Much like the hub of a bustling airport, college admissions websites act as a central hub, directing students to a variety of useful information and resources, including virtual campus tours, application portals, financial aid information, and academic program details. Therefore, keeping college websites updated, accurate, and user-friendly is paramount, ensuring that prospective students have access to timely and relevant information to make informed decisions about their educational journey (Ford 2011; Phillips 2021). A well-designed and informative website not only enhances the student experience but also reflects positively on the institution's commitment to transparency and accessibility in the admissions process.

Untapped Potential of Financial Aid Resources

College planning, encompassing both academic and financial considerations, is a pivotal stage in the transition from high school to higher education (Fuller 2014). While academic preparedness often takes precedence, the significance of financial planning cannot be overstated. Financial resources, including scholarships, grants, loans, and other forms of financial aid, play a crucial role in determining a student's ability to access and afford higher education opportunities (Fuller 2014; Bastedo and Jaquette 2011). However, the findings indicate that a relatively small percentage of students, only 6.86 percent, engage with dedicated financial aid offices and resources during the college search and selection process. University officials and advocates for higher education access are to be concerned about this finding. This suggests a potential gap in students' awareness and utilization of available financial resources, which could impact their ability to make informed decisions about college affordability. Recent studies also show great variation in the extent colleges successfully communicate their costs through their websites (Perna, *et al.* 2021). It also may reflect the relative affluence of the students applying the institution and the exclusion of Questbridge applications in the sampling, which is addressed in the limitations section, as 60.4 percent of the applicants expressed an intention to apply for financial

aid. Further, it is plausible that students may defer this responsibility later in the process or to their parents/guardians, underscoring the importance of fostering financial literacy and empowerment among students to navigate the complexities of financing higher education effectively. The findings suggest financial aid remains an afterthought. As such, there remains a pressing need for increased emphasis on financial resource research and education as integral components of the college planning process, ensuring equitable access to higher education opportunities for all students.

On Foot or Online: Exploring Campus Tours in the Digital Age

Prospective students engaging in campus tours, whether in-person or virtual, are afforded invaluable opportunities to explore and evaluate potential educational institutions. The data reveals that both types of tours are utilized *equally*, with 20.11 percent of students opting for virtual campus tours and 19.32 percent visiting college admissions offices in person. In-person campus tours offer firsthand experiences, allowing students to immerse themselves in the campus environment, interact with current students and faculty, and gain insights into campus culture and facilities (Selingo 2020). Conversely, virtual tours provide the convenience of exploring campuses from the comfort of home, offering accessibility for low- or limited-income families who may face barriers to traveling to multiple campuses (Selingo 2020). The emergence of online platforms has democratized the college exploration process, bridging knowledge gaps and providing options previously unavailable. But as mentioned previously, limitations remain as access is dependent on reliable connectivity. In short, both in-person and virtual campus tours play integral roles in empowering prospective students to make informed decisions about their educational journey.

The Ever-Essential Role of School Counselors

Despite the rapid digitalization of college resources as shown by the data, the high school counselor remains a critical and central figure in the college planning process for students. As indicated by the data, 45.2 percent

of students cite the high school counselor as their most frequently used in-person resource. It is evident that their role is paramount and not to be overshadowed by the rise of digital resources. School-based counselors can offer personalized guidance, academic support (Hurwitz and Howell 2014), and expertise tailored to individual student needs, navigating the complexities of college admissions, financial aid, and academic planning (Shi and Brown 2020) even in light of the strain on the profession during the COVID-19 pandemic (Savitz-Romer, *et al.* 2021). Their central roles with students provide invaluable assistance in exploring college options, completing applications, and accessing resources for college affordability (McMahon, *et al.* 2017). Thus, while digital resources offer convenience and accessibility, the human connection and expertise provided by high school counselors remain irreplaceable in the college planning journey. Research suggests the demands are high and complex for school-based counselors and continued investment is desperately warranted (Savitz-Romer, *et al.* 2021). The finding that school-based counselors are the most frequently used in-person resource further reinforces their critical role and supports the call for greater investment in the profession itself.

Unveiling Disparities: Paying for Independent Counselor Services

The findings of this study reveal that 6 percent of students engaged a paid Independent Educational Consultants (IEC) in the college search and selection process. This finding may be one of the first to uncover a preliminary understanding of IEC use in the marketplace. IECs offer services that can come at a high price point, rendering them inaccessible to many students from lower socioeconomic backgrounds (Picchi 2023). This exclusivity can reinforce existing socioeconomic inequalities in college access and perpetuate disparities in educational opportunities. That said, IECs may fulfill a role that far exceeds the role and capacity the school-based counselor. The expertise and resources provided by paid counselors may further advantage students from affluent families, widening the gap between privileged and disadvantaged students in the college admissions process.

The 2:1:2 Ratio of In-Person, Hybrid, and Digital

The findings unveil the 2:1:2 ratio of in-person, hybrid, and digital resource use among prospective college students. This offers critical and valuable insights for colleges and universities as they reimagine financial resource allocation and staffing levels post-COVID (*see* Figure 2, on page 11). This ratio indicates that while there is a significant utilization of digital resources, there remains a substantial reliance on in-person and hybrid resources as well. Colleges and universities can utilize this key ratio to inform decisions related to the allocation of time, staffing, and financial resources toward the development and maintenance of digital platforms, the provision of in-person support services, and the integration of hybrid approaches that combine digital and in-person elements. Institutions, especially those under resource constraint, can consider this ratio to guide resource allocation. Additionally, this ratio may provide insights into how much time staff contribute to projects related to each modality, allowing institutions to optimize staffing levels and responsibilities to effectively meet the diverse needs of prospective students throughout the college search and selection process.

Limitations

This investigation faces several limitations. First, it excludes students who used alternative application platforms like Questbridge or Coalition Application, potentially limiting insights into their perspectives and experiences. Secondly, due to the university's highly-selective nature, findings may not fully represent the broader applicant pool, warranting cautious generalization in the marketplace. Additionally, the survey's predetermined resource choices, while comprehensive and robust, may overlook less common ones. Further, the absence of an "other" option limited the scope of responses.

Fourth, there exists the possibility of response conflation between the item types "College Websites" and "Financial Aid Offices and Resources." While participants may have indicated their use of college websites for accessing general information about institutions, it's plausible that these websites also contained financial

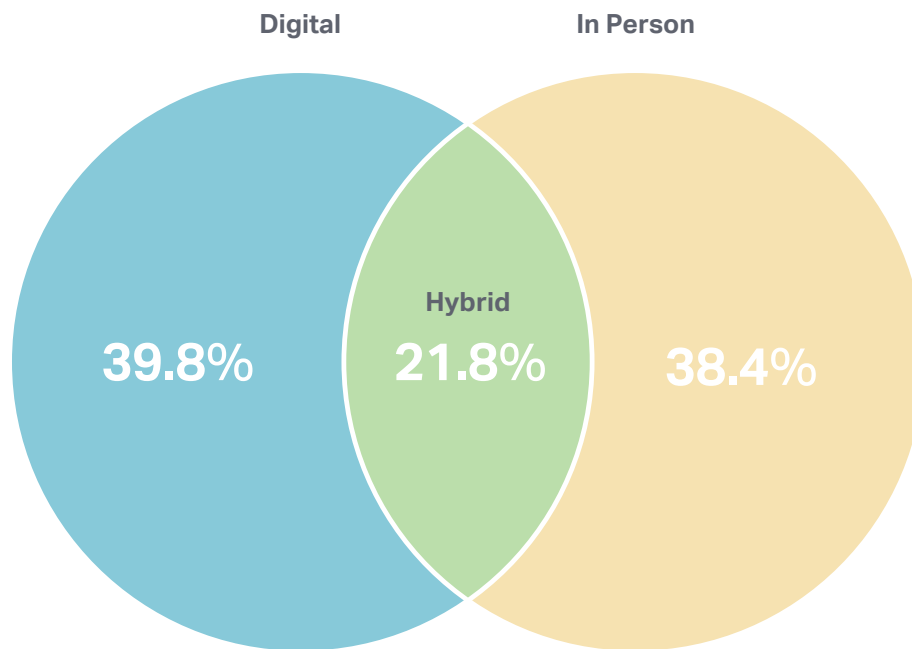


FIGURE 2 ➤ Modality of Student Resource Use in College Search and Selection

aid information. As a result, respondents who primarily utilized college websites may have inadvertently included financial aid engagement within their responses, potentially skewing the perceived frequency of financial aid resource utilization. Thus, the apparent limited engagement with financial aid resources observed in the study may be a consequence of response conflation rather than an accurate representation of students' actual engagement with financial aid offices and resources.

Finally, as a single-case study, generalizability to other institutions may be limited; however, it serves as a valuable model for similar investigations, offering insights into resource utilization among prospective students.

Future Research

Recent research (Savitz-Romer 2021) highlights school counselors' experiences during COVID-19, but further study is needed on how students interact with college counselors post-pandemic, examining dynamics, guidance types, modality use, and counseling efficacy for informed decision-making. Next, there's a knowledge

gap on social media's role in college planning, which in 2024 and onwards may be more significant than previously understood (Stolzenberg, *et al.* 2019). Research should delve into students' social media use for college-related purposes, its influence on perceptions, and effective strategies for leveraging its benefits. Third, research should explore how students utilize financial aid resources pre-college, particularly in understanding and navigating college website information. Understanding online financial aid resource effectiveness for low SES students could enhance access and equity in higher education (Bastedo and Jaquette 2011). Despite media coverage (Picchi 2023), there's insufficient insight into independent counselors' utilization and effectiveness. Research should examine students' motivations, services offered, and impact on college outcomes.

Most importantly, understanding how resource utilization varies across applicant characteristics such as socioeconomic status, first-generation college student, high school type, and different racial identities can provide institutions with guidance on how best to reach

students of all backgrounds. Those investigations are critical and will allow institutions to meet the full ecosystem of students where they are.

In Policy and Practice

This dataset provides critical insight into resource utilization by college-going applicants. Accordingly, insights pertaining to higher education resource allocation by university administrators might be drawn from the outcomes.

■ **Financial Resource Allocation.** With college websites, social media channels, and virtual campus tours emerging as popular digital resources, universities must prioritize investments in digital platforms and technologies. This should involve enhancing the functionality and user experience of their websites, developing engaging and informative virtual campus tours, and leveraging social media channels to connect with and engage prospective students. While digital resources are prevalent, in-person resources like high school counselors and college fairs still play significant roles in the college planning process. Universities should allocate resources to support in-person outreach efforts, such as hosting college fairs, facilitating campus visits for high school counselors, and strengthening partnerships with high schools and community organizations to provide personalized guidance and support. Given the popularity of hybrid resources like information sessions and campus/virtual tours, universities may consider investing in hybrid approaches such as self-guided campus tours which leverage technology and on-campus experiences.

■ **Staffing Levels and Time Contributions.** One key implication of the data is the need to bolster digital support teams within university settings. With digital resources such as college websites, social media channels, and virtual campus tours being frequently utilized by prospective students, universities may need to increase, or at very least re-evaluate, staffing levels in areas such as web development, content creation, and social media management. Admissions offices are experiencing unprecedented strain (Zahneis

2023), and revisiting roles and their time allocation is vital. This would enable universities to maintain and enhance their digital platforms, develop engaging virtual experiences, and effectively engage with prospective students through online channels.

In addition to digital support, the dataset also highlights the continued importance of in-person resources such as the role of high school counselors and visits to college admissions offices. Despite the prevalence of digital resources, the findings note that many students still rely on in-person interactions for advice and support during the college search process. As such, universities may need to maintain or increase staffing levels in these areas to provide personalized assistance to prospective students. This could involve hiring additional admissions counselors, outreach coordinators, or admissions advisors to facilitate in-person interactions and support services.

Finally, the emergence of hybrid resources, such as college planning websites and books, suggests a greater exploration for a hybrid staffing approach within university settings. Staff members capable of navigating both digital and in-person interactions may be required to effectively support hybrid resource utilization. This could entail cross-training existing staff or hiring individuals with versatile skill sets capable of engaging with prospective students through various channels.

Conclusion

This investigation sheds light on the resource utilization patterns among prospective college students during the college search and selection process. Through this analysis of resource frequency and modality, significant insights have emerged, which have implications for higher education institutions, policymakers, and practitioners alike. The prevalence of digital resources underscores the need for institutions to invest in digital infrastructure and innovative technologies to cater to the new needs of students in the digital age. If there was any question about the role of technology, the future is indisputably digital, or at very least hybrid based on these findings. Nevertheless, the sustained utiliza-

tion of in-person resources underscores the enduring value of personalized guidance and human-centered support throughout the college planning journey. As institutions navigate this ever-evolving Connectivist ecosystem, it becomes imperative to adopt a strategic approach to resource allocation and staffing, striking a balance between digital innovation and human interaction. By leveraging these insights, colleges and uni-

versities can enhance their support offerings, optimize student engagement, and ultimately foster student and institutional success in the digital era.

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References

- Audyatis, T. 2021. The college choice criteria of African American Students: A literature review. *College and University*. 96(2): 53–56.
- Avery, C. 2010. *The Effects of College-Counseling on High Achieving, Low-Income Students*. Cambridge, MA: National Bureau of Economic Research.
- Bastedo, M. N., and O. Jaquette. 2011. Running in place: Low-income students and the dynamics of higher education stratification. *Educational Evaluation and Policy Analysis*. 33(3): 318–339. Available at: <doi.org/10.3102/0162373711406718>.
- Burbio. 2020. More than 50% of U.S. K–12 public school students will be going back to school “virtually” this fall (press release). *PR Web*. August 11. Retrieved from: <prweb.com/releases/more-than-50-of-u-s-k-12-public-school-students-will-be-going-back-to-school-virtually-this-fall-880495557.html>.
- Ceja, M. 2006. Understanding the role of parents and siblings as information sources in the college choice process of Chicana students. *Journal of College Student Development*. 47(1): 87–104.
- Chapman, D. W. 1981. A model of student college choice. *Journal of Higher Education*. 52(5): 490–505. Retrieved from: <doi.org/10.1080/00221546.198111778120>.
- Cholewa, B., C. Burkhardt, and M. Hull. 2016. Are school counselors impacting underrepresented students’ thinking about postsecondary education? A nationally representative study. *Professional School Counseling*. 19: 144–154. Retrieved from: <doi.org/10.5330/1096-2409-19.1.144>.
- Common Application. 2024. *About the Common Application*. Retrieved from: <commonapp.org/about>.
- Ding, L., S. Li, and Y. Xue. 2024. Choosing American colleges from afar: Chinese students’ college choice in the US. *Journal of International Students*. 14(3): 89–108.
- Ford, W. 2011. Evaluating the effectiveness of college web sites for prospective students. *Journal of College Admission*. Summer 2011: 26–31.
- Fuller, M. B. 2014. A history of financial aid to students. *Journal of Student Financial Aid*. 44(1): Article 4. Retrieved from: <doi.org/10.55504/0884-9153.1078>.
- Goff, B., V. Patino, and G. Jackson. 2004. Preferred information sources of high school students for community colleges and universities. *Community College Journal of Research and Practice*. 28(10): 795–803. Retrieved from: <doi.org/10.1080/10668920390276957>.
- Goyette, K. A. 2008. Race, social background, and school choice options. *Equity & Excellence in Education*. 41(1): 114–129. Retrieved from: <doi.org/10.1080/10665680701774428>.
- Guri-Rosenblit, S. 2014. *Higher Education in the Digital Age: Technology Issues and Strategies for American Colleges and Universities*. Greenwood Publishing Group.
- Han, P. 2014. A literature review on college choice and marketing strategies for recruitment. *Family and Consumer Sciences Research Journal*. 43(2): 120–130. Retrieved from: <doi.org/10.1111/fcsr.12091>.
- Hossler, D., and B. Bontrager. 2014. *Handbook of Strategic Enrollment Management*. San Francisco: Wiley.
- Huntington-Klein, N. 2018. College choice as a collective decision. *Economic Inquiry*. 56(2): 1202–1219. Retrieved from: <doi.org/10.1111/ecin.12470>.
- Hurwitz, M., and J. Howell. 2014. Estimating causal impacts of school counselors with regression discontinuity designs. *Journal of Counseling & Development*. 92(3): 316–327. Retrieved from: <doi.org/10.1002/j.1556-6676.2014.00159.x>.
- McDonough, P. M. 1997. *Choosing Colleges: How Social Class and Schools Structure Opportunity*. Albany, NY: SUNY Press.
- McMahon, G., C. Griffith, M. Mariani, and B. Zyromski. 2017. School counseling intervention research on college readiness, college access, and postsecondary success: A 10-year content analysis of peer-reviewed research. *Journal of College Access*. 3(2): 8–27.
- Nicola, T., A. Gable, and J. Ash. 2020. *The Response of Rural Districts to the Covid-19 Pandemic*. Cambridge, MA: Center for Education Policy Research.
- Nixon, W. L., Z. A. Mayo, and W. Koo. 2021. Student-athlete college choice: Division I, II, and III football players. *Journal of Issues in Intercollegiate Athletics*. 14(1): 27.
- Palmer, M., J. Hayek, D. Hossler, S.A. Jacob, H. Cummings, and J. Kinzie. 2004. *Fifty years of college choice: Social,*

- Political and Institutional Influences on the Decision-Making Process*. Lumina Foundation. Retrieved from: <files.eric.ed.gov/fulltext/ED484237.pdf>.
- Paulsen, M. B. 1990. *College Choice: Understanding Student Enrollment Behavior* (ASHE-ERIC Higher Education Report No. 6). Washington, D.C.: George Washington University.
- Perna, L.W. 2006. Studying college access and choice: a proposed conceptual model. In *Higher Education: Handbook of Theory and Research* (Volume 21), edited by J. C. Smart. Dordrecht, Netherlands: Springer Nature. Retrieved from: <doi.org/10.1007/1-4020-4512-3_3>.
- Perna, L. W., J. Wright-Kim, and N. Jiang. 2021. Money matters: Understanding how colleges and universities use their websites to communicate information about how to pay college costs. *Educational Policy*. 35(7): 1311–1348. Retrieved from: <doi.org/10.1177/0895904819867398>.
- Perna, L. W., H. Rowan-Kenyon, S. Thomas, A. Bell, R. Anderson, and C. Li. 2008. The role of college counseling in shaping college opportunity: Variations across high schools. *The Review of Higher Education* 31(2): 131–159. Retrieved from: <doi.org/10.1353/rhe.2007.0073>.
- Phillips, C. 2021. The role of your institution's website in driving student enrollment. *The Evollution*. December 14. Retrieved from: <evollution.com/attracting-students/marketing_branding/the-role-of-your-institutions-website-in-driving-student-enrollment-2>.
- Picchi, A. 2023. What does it take to get into an Ivy League college? For some students, a \$750,000 consultant. *MoneyWatch*. December 18. Retrieved from: <cbnews.com/news/college-acceptance-ivy-league-750000-consultant/>.
- Reynolds, S., and M. Dhawan. 2022. *How the Rapid Adoption of Edtech is Changing K-12 Education*. Boston: EY-Parthenon. Retrieved from: <ey.com/en_us/insights/education/the-rapid-adoption-of-edtech-is-changing-k-12>.
- Riggert, S. C., M. E. Boyle, J. M. Petrosko, D. Ash, and C. Rude-Parkins. 2006. The influence of significant others on high school students' career expectations. *Journal of Career Development*. 32(3): 235–251.
- Rowan-Kenyon, H. T., A. D. Bell, and L. W. Perna. 2008. Contextual influences on parental involvement in college going: Variations by socioeconomic class. *Journal of Higher Education*. 79(5): 564–586. Retrieved from: <doi.org/10.1080/00221546.2008.11772117>.
- Savitz-Romer, M., H. T. Rowan-Kenyon, T.P. Nicola, E. Alexander, and S. Carroll. 2021. When the kids are not alright: school counseling in the time of COVID-19. *AERA Open*. 7. Retrieved from: <doi.org/10.1177/23328584211033600>.
- Selingo, J. 2020. How to normalize the college search process for juniors. *The New York Times*. June 3. Retrieved from: <nytimes.com/2020/06/03/well/family/college-search-class-of-2021-coronavirus.html>.
- Shi, Q., and M. Brown. 2020. School counselors' impact on school-level academic outcomes: caseload and use of time. *Professional School Counseling*. 23(1). Retrieved from: <doi.org/10.1177/2156759X20904489>.
- Siemens, G. 2005. Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*: 2. Retrieved from: <itdl.org/Journal/Jan_05/article01.htm>.
- Stolzenberg, E. B., M. K. Eagan, M.C. Aragon, N. M. Cesar-Davis, S. Jacobo, V. Couch, and C. Rios-Aguilar. 2019. *The American Freshman: National Norms Fall 2017*. Higher Education Research Institute, UCLA.
- Students for Fair Admissions, Inc. v. President and Fellows of Harvard College*, 600 U.S. ____ 2023.
- Varga-Atkins, T., P. Dangerfield, D. Brigden, and M. Brown. 2013. Enhancing students' critical thinking skills through online group work: A mixed methods study. *Research in Learning Technology*. 21(1): 1–21.
- Van de Werfhorst, H. G., E. Kessenich, and S. Geven. 2022. The digital divide in online education: Inequality in digital readiness of students and schools. *Computers and Education Open*. 3. Retrieved from: <doi.org/10.1016/j.caeo.2022.100100>.
- Velez, E. D. 2016. *How Can High School Counseling Shape Students' Postsecondary Attendance? Exploring the Relationship Between the High School Counseling Context and Subsequent Postsecondary Enrollment*. Arlington, VA: National Association for College Admission Counseling. Retrieved from: <nacacnet.org/globalassets/documents/publications/research/hsls-phase-iii.pdf>.
- Wilson, H. E., and J. L. Adelson. 2012. College choices of academically talented secondary students. *Journal of Advanced Academics*. 23(1): 32–52. Retrieved from: <doi.org/10.1177/1932202X11430269>.
- Wolniak, G. C., and M. E. Engberg. 2007. The effects of high school feeder networks on college enrollment. *The Review of Higher Education*. 31(1): 27–53. Retrieved from: <doi.org/10.1353/rhe.2007.0054>.
- Zahneis, M. 2023. Turnover is bad across higher ed. It's even worse in admissions. *The Chronicle of Higher Education*. April 18. Retrieved from: <chronicle.com/article/turnover-is-bad-across-higher-ed-its-even-worse-in-admissions>.

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