

August 2025



Changing the Narrative

New Strategies to Enhance Access to
Post-Secondary Education in the Age of
Digital Media and Technology

Final Research Report

Table Of Contents

Table Of Contents	1
Executive Summary	3
Introduction	6
1. Literature Review	9
Methodology	9
Findings	10
Postsecondary Narratives	10
Social and Cultural Factors of a College-Going Culture	13
Information Consumption Preferences	14
Recommendations	17
2. Qualitative Research	19
Methodology	19
Findings	24
Deciding to Pursue Postsecondary Education	24
Drivers for Pursuing Postsecondary Education	29
Finding Information on Postsecondary Options	35
Erroneous Assumptions about Postsecondary Education	37
Recommendations	40
3. Creative Testing	42
Methodology	42
Findings	44
The Importance of Financial Concerns	44
Authenticity and Belonging	44
Empowering, Not Pressuring	45
Recommendations	48
4. Usability Testing	50
Methodology	50
Phase One: Moderated Interviews	50
Phase Two: Asynchronous Survey	52
Findings	56
User Engagement and Visual Appeal	56
Navigational and Terminology Challenges	56
Value of Complementary User Behavior Analysis	58
Recommendations	59
Conclusion	60
Works Cited	61

Executive Summary

The Changing the Narrative Project

The *Changing the Narrative* pilot project is a collaborative initiative between the [Washington Student Achievement Council](#), [Central Washington University \(CWU\)](#), [Sandbox Inc.](#) supported by [Lumina Foundation](#). The project aims to make the college transition easier by developing messaging, media and interactive tools that resonate with prospective students and their families. The project is especially targeted at underrepresented groups in postsecondary education who lack the knowledge, confidence, and networks to effectively navigate key decisions regarding their life after high school. Those groups include for instance first generation students, low-income students and students of color. The project was conceptualized and developed between September 2024 and August 2025.

Research-to-Product Approach

This report outlines the research-to-product approach used to create the [@CollegeToolkit](#) platform, combining social science and user-centered design methods. The research had a dual purpose: to design a platform based on real user needs and to contribute to broader policy goals of increasing college attainment, especially for underrepresented students. The research involved two phases and included 102 participants from across Washington state, including students, higher education staff, and postsecondary education access professionals.

The first phase, conducted from September to November 2025, focused on understanding the barriers and motivations for college access, particularly among underrepresented groups. This involved a literature review and qualitative research, including interviews and focus groups with 51 participants.

The second phase, from February to April 2025, gathered specific feedback from students on the platform's content and design. This included creative testing with 17 students and usability testing with 34 high school and university students to refine the interactive prototypes, ensuring the final platform effectively meets their needs.

Key Findings

The research components, taken together, yielded rich, multi-dimensional, insights:

- **Financial barriers remain a major deterrent.** The cost of college, fear of debt, and the administrative burden of financial aid are hurdles for students, particularly those from underrepresented groups and adult learners. Many feel college is unaffordable and that financial aid information is difficult to find or understand.

- ***Motivation is often communal, not just individual.*** While economic security is a primary driver for pursuing postsecondary education, many underrepresented students are also motivated by familial obligations and a desire to be a role model for siblings or to honor their parents' sacrifices.
- ***A lack of belonging creates a significant barrier.*** Many students, especially those from underrepresented backgrounds, express an underlying doubt that college is "meant for them." This feeling is reinforced by a lack of representation and concerns about fitting in and making friends.
- ***Trusted messengers are highly influential.*** Personal connections with mentors, teachers, family members, and peers are powerful motivators that provide encouragement and help students see themselves as "college material."
- ***Existing information on postsecondary options is often fragmented and unrealistic.*** Students reported receiving limited and at times simplistic messages about their postsecondary options, often presented as a binary choice between a four-year degree and work. They also wished for more realistic depictions of college life that acknowledge both its challenges and rewards.
- ***Design and usability are crucial for engagement.*** User testing confirmed the importance of both appealing visual designs to engage audiences as well as explicit navigation, terminology, and instructions. Assumptions about students' familiarity with website navigation and prior knowledge about postsecondary education had to be reevaluated given that students prioritize explicit guidance and speedy access to relevant answers. This finding highlighted the importance of engaging with students directly to understand evolving digital behaviours and expectations.
- ***Practical tools and a guided experience are needed.*** There is a demand for tools that simplify complex processes such as applying for college and financial aid. Users express a desire for a guided experience that helps them navigate the platform efficiently while also allowing for self-exploration.

Key Recommendations

The multi-stage research process resulted in several recommendations for the design and development of the @CollegeToolkit platform and for broader research and policy initiatives.

Recommendations relevant to @CollegeToolkit pilot platform

- ***Address financial concerns with clarity.*** Many students are deterred by the fear of debt and a lack of financial literacy, and they need help navigating complex financial aid processes. A top priority is thus to provide direct, honest information about college costs and financing.
- ***Use authentic and relatable messengers.*** Messaging is most effective when it comes from relatable individuals who have shared life experiences and can serve as role models. Personal experiences should be leveraged to build trust and make various study and career options feel more accessible.
- ***Provide dedicated resources for parents and families.*** Since parents and families play a prominent role in students' decisions, resources tailored specifically to them should be available. This is

especially important for families who speak a language other than English or have no postsecondary experience.

- ***Make navigational cues and terminology explicit.*** An explicit approach in navigational cues and terminology is crucial to ensure good user understanding and limit frustration. Strategies should be used to actively assist navigation and information understanding.
- ***Leverage video for engagement and accessibility.*** Short, topic-specific, videos that feature diverse and authentic student experiences can engage users and retain their attention. Messaging in videos must be carefully tailored to the target audience's unique needs.
- ***Create a supportive and empowering tone.*** Students want honest, authentic portrayals of college that acknowledge both the rewarding freedoms and the inevitable challenges. The ideal tone should balance approachability with expertise, helping students prepare for and navigate potential ups and downs.
- ***Make key tools more prominent.*** Valuable interactive tools, such as a proposed step-by-step guide to financial aid, should be placed prominently on the platform to improve their discoverability and utility. Users expressed a desire to access these practical resources faster, as they are often overwhelmed by the volume of available information and want quick answers.

Recommendation for broader research and policy initiatives:

- ***Further tailor information to specific needs and goals.*** Generic information is less effective than targeted guidance that aligns with individuals' specific needs, interests, and career aspirations. The goal should be to provide decision-making support, not to steer or pressure individuals toward one specific postsecondary pathway. There is an opportunity to explore the use of technology, including artificial intelligence, to provide more tailored support.
- ***Broaden the conversation beyond four-year degrees:*** The conversation about postsecondary options needs to be more inclusive, presenting all postsecondary pathways, such as community college degrees, certificates or apprenticeships in a single discussion. This approach prevents students from feeling pressured toward a single path and acknowledges that decisions can evolve.
- ***Expand outreach to include adults.*** Communication efforts should extend beyond high school to reach adult learners, who may decide on education outside the traditional timeline. Adult students are often motivated by career advancement and increased earning capacity, and messaging should reflect these priorities, while further research is also needed to understand adult learners' needs and behaviours.

Introduction

This report summarizes findings from research conducted as part of the *Changing the Narrative* pilot project, a collaborative initiative between the [Washington Student Achievement Council](#), [Central Washington University](#), [Sandbox Inc.](#) and supported by [Lumina Foundation](#), which resulted in the release of the [@CollegeToolkit](#) platform in August 2025.

Context and Rationale

Data on the economic and social benefits of postsecondary education is plentiful, and opinion research provides a strong understanding of the U.S. population's evolving views on the value of higher education. However, a smaller body of research is focused on what messages, information formats and sources of motivation are most impactful for individuals who are skeptical about the benefits of postsecondary education in general and for themselves specifically, or who may be interested in postsecondary education but face challenges when navigating the process to explore, consider and access college.

This project departs from traditional institutional or government-driven communications about postsecondary education opportunities and benefits by taking a user-centric approach to conceptualize messages and tools that should be prioritized to encourage youth and adults to consider postsecondary education. This approach recognizes that understanding prospective students' beliefs, concerns, preferences and behaviours are critical to develop messages and tools that have the capacity to enhance awareness and understanding of postsecondary education benefits, while also boosting individuals' motivation and emotional readiness to engage in a postsecondary education pathway.

Focus

The research sought to gather information on decision-making to pursue postsecondary education. The research assesses where people get information about college, concerns and motivations for pursuing postsecondary education, and the meaning assigned to college or other postsecondary educational experiences. The study also gathered information on postsecondary access and student service professionals' thoughts on messages to motivate individuals who have never attended a postsecondary institution to consider college. Postsecondary education access professionals included experts and leaders from public organizations like the Washington Office of the Superintendent as well as nongovernmental organizations supporting underrepresented students in accessing postsecondary pathways. Postsecondary student service professionals included university staff in a diversity of student outreach, support and guidance roles. The creative testing and usability testing components of this research relied on continuous engagement with CWU students, facilitated by CWU's communications team, and engagement with high schools supported through WSAC's outreach.

The project includes a particular focus on groups that are underrepresented in postsecondary education. To address this dimension, the research uses a definition of underrepresentation that highlights diverse groups facing challenges in participating in postsecondary education, particularly Black, Indigenous, and Latinx students as well as other intersecting identities such as adult learners (ages 25 and older), foster youth, incarcerated individuals, low-income and first generation students, LGBTQ+ students, undocumented/DACAmented individuals, and veterans (Kwakye & Deane, 2022).

Research Design

The research design included two sequential strands of research, each composed of two components. In total, 102 participants including current and former Central Washington University (CWU) students, CWU staff, high school students, and postsecondary access and student support stakeholders working across Washington state offered their perspectives and insights.

The first strand of research, implemented between September and November 2025, focused on establishing a detailed understanding of the motivators and barriers to college access, particularly among underrepresented groups. It involved:

- ***A targeted review of recent literature*** on individuals' behaviors, perceptions, and attitudes pertaining to postsecondary education decisions, which helped identify key themes, barriers and motivators and guide the qualitative research process.
- ***Qualitative research***, including in-depth interviews and focus groups with CWU students and staff, high school students in Central Washington and postsecondary access stakeholders across Washington state. This research provided a direct and detailed understanding of students' journeys, barriers, sources of motivation, institutional supports and gaps, and decision-making challenges. A total of 51 participants took part in this research phase.

The second strand of research, implemented between February and April 2025, focused on eliciting granular input from the primary target audience – high school and university students – about the types of information that would be most helpful to them and their families as they navigate the college access decision-making process. It involved:

- ***Creative testing focus groups*** with CWU students, requesting comments from participants on key messages and visual materials selected by the project team based on findings from the first phase of the research. In total, 17 students participated in this component. Based on input received, interactive design prototypes were designed to sketch out what would become the @CollegeToolkit platform.
- ***Usability testing*** with CWU students and high school students, requesting feedback on the design prototypes to identify strengths and weaknesses. Six university students participated in an in-depth individual observational interview and 28 high school students completed an

asynchronous survey asking them to navigate the prototypes, providing analytics and feedback to the project team from a broader group.

This research acknowledges limitations. Constraints related to timelines and engagement of youth under 18 skewed our sample toward university rather than high school students, about whom further research is warranted. Reflections from university students are highly valuable because they went through the college consideration, application and access process and therefore know well what would have helped them in their journey. However, their successful access into college and reliance on recent memory when discussing the college consideration process introduce a perspective that must be borne in mind. Additionally, and despite broad thematic alignment with the literature, the geographic focus of this pilot project limits the generalizability of primary research insights.

Possible Research Uses

The present report consolidates the various strands of research that inform the conceptualization and design of the @CollegeToolkit platform. This research draws both from established practices in social sciences research and methods from user research, service and product design.

The research supports a dual objective: first, it helped conceptualize and design the @CollegeToolkit platform's features, textual and video content on the basis of real user needs, taking a student-centered approach to postsecondary outreach and access communications. In addition, the research offers insights that could contribute to broader policy and research initiatives on college access and attainment, especially among underrepresented students who fail to reap the economic and social benefits of attending and completing postsecondary education. In particular, the project supports the commitment of the Washington Student Achievement Council to increasing educational opportunities and attainment in Washington and Lumina Foundation's 20240 Goal, which aims for 75 percent of adults in the U.S. labor force to have college degrees or other credentials of value leading to economic prosperity by 2040.

The report was prepared by Sandbox Inc. For any questions about the project, please contact:

Patricia Mangeol, Director of Research and Digital Learning Initiatives, patricia@sandboxinc.ca

Isaac Kwakye, Deputy Director of the Washington Student Achievement Council: isaack@wsac.wa.gov

1. Literature Review

Methodology

This targeted literature review was conducted to explore key factors influencing postsecondary education decisions among underrepresented groups. The review focused on three primary areas: existing postsecondary narratives, including beliefs, perceptions, and priorities of underrepresented groups; social and cultural factors influencing a college-going culture, and media consumption preferences.

Relevant literature was collected from peer-reviewed journal articles, policy reports, and behavioral studies on educational decisions to ensure the inclusion of diverse perspectives on the barriers and motivators shaping educational decisions for marginalized populations.

The following questions guide the literature review:

1. What topics and issues do underrepresented youth in higher education consider most important and relevant to their personal economic and social success today and in the future?
2. What social and cultural factors contribute to building a "college-going culture" among underrepresented youth?
3. What awareness-raising campaigns, including those involving social influencers or narrative-changing techniques, have been successful in resonating with underrepresented youth?
4. How effective is the video format for engaging and retaining information when it comes to motivating people to take action in education or work?
5. During what times and in what contexts are underrepresented youth most receptive to receiving learning, education, and career information?
6. Through which media and formats do underrepresented youth prefer to access learning, education, and career-related information?

By synthesizing findings across these key thematic areas, this literature review aims to provide a foundation for developing evidence-based messaging strategies and tools that resonate with the lived experiences of underrepresented groups.

Findings

Postsecondary Narratives

Existing Narratives and Beliefs

While there is broad agreement that a college degree brings benefits in terms of employment and higher earnings, there is substantial evidence of disparities in the outcomes for students from underrepresented groups. In addition, common narratives about the value of higher education are based on the experience of predominantly White youth from middle or affluent households. The degree to which underrepresented youth feel these narratives apply to them will impact their perception of their options, plans, and sense of self as decision agents as they make the transition from adolescence to adulthood. Other identity factors, such as race, socioeconomic status, family history, nativity, work history, and family obligations, among others, significantly mitigate the experience of these transitions.

Studies focused on the topics and issues individuals consider most important and relevant to their personal, economic, and social success are most commonly focused on underrepresented students who are already engaged in an educational setting. This is for at least two reasons. First, many researchers seek to understand the factors that contribute to the success of these individuals relative to their group to inform policies and practices that seek to mitigate barriers to educational access. The second reason is likely due to convenience: university-affiliated researchers have greater access to students who are engaged in an educational setting. As a result, the current research may miss how underrepresented and engaged individuals differ from underrepresented and non-engaged individuals.

Scholarship on what individuals consider important or significant when deciding whether to pursue postsecondary education identifies the following:

- **Cost.** Although financial aid can increase access to college, particularly for low-income and racially minoritized individuals, the overall financial burden remains daunting in both real and psychological terms (Kwakye & Deane, 2022). Narratives about postsecondary education being cost-prohibitive tend to persist even when there are generous financial aid options (Kwakye & Lacalli, 2023). In addition, research into cost barriers for potential students and their families stresses the significance of the administrative burden of understanding eligibility, applying, and complying with financial aid requirements. The lack of financial literacy among families also exacerbates these concerns, making it difficult for students to plan for their educational futures (Herd & Moynihan, 2018; Kwakye, Moore, & Pasion, 2019).

There is a general weariness about financing college through debt, particularly when the individual lacks a clear vision of the job and earning potential they will have after completing the educational program. In a survey of 1,600 high school graduates who opted not to attend college, 45% of

respondents believed that a college degree is not worth the investment because they cannot afford the accompanying debt (Golston, 2022). However, 62% of respondents expressed a willingness to incur debt if it guarantees a good job post-graduation, underscoring the importance of assurance regarding returns on investment, whether through a two-year, vocational, or four-year program (Golston, 2022).

Many students are also concerned about disrupting their current livelihoods to pursue education, particularly those who are financially independent or have caregiving responsibilities.

- ***Identity and narratives about one's self shape perceptions about what is possible.*** The interplay between a sense of identity and beliefs about postsecondary education shapes individuals' perceptions and beliefs about their fitness for postsecondary education or the value of postsecondary education for themselves. For example, research on scholarships and supports for foster youth identifies a tendency of students to attribute challenges to their foster youth identity, viewing themselves as “terminally unique.” Program implementors report, “Our students go to college and have issues that are really typical of other college students, but because they have been in foster care, they think that nobody else has these issues” (Hernandez & Naccarato, 2010, p. 764). Students with experiences in systems like foster care or incarceration report feeling stigmatized and isolated because of their identities and may be reluctant to access help through institutions given prior negative experiences (as cited in Hernandez et al., 2024).

The relationship between one's own identity and peer or social referencing also figures prominently in research on educational persistence. Studies focused on students who have experienced adversity, including homelessness, abuse, or incarceration, found that students expressed a need for community. Programmatic interventions that stressed connections to peers strengthened the students' resolve for educational persistence (Hernandez et al., 2024)

- ***Educators tend to underestimate the level of interest in postsecondary education.*** The extensive literature on disparities in educational outcomes among groups distracts from the high rate of youth that aspire to attend higher education. A recent Washington STEM survey found that nearly 90% of students expressed aspirations to pursue postsecondary education, a departure from the educators' belief that only about half of students wish to continue their education after high school (Shapiro, 2022). As a primary source of information about postsecondary options, educators' under-recognition of interest in postsecondary education can lead to a steering effect in which youth are denied information and opportunities due to unconscious bias on the part of educators. Without other forms of information access, uneven access to information will contribute to patterns of underrepresentation in higher education.

Priorities of Underrepresented Groups

The project aims to build on recent studies that explore the interests and motivators of youth and adults from underrepresented groups as they consider their personal and working lives. The following findings have been identified:

- ***Financial goals are important but not as important as personal goals.*** Many believe earning a degree or other credential will bring economic and social benefits. While about a third of adults who re-enrolled into postsecondary education believed the credential led to an increase in pay, twice that rate reported that it made them feel good about their achievement (Gale et al., 2022). There is a common desire for these learners to strive for themselves and their families (Education Strategy Group, 2021). Many of the motivations articulated by these returning students intersect with other parts of their identity. For example, White responders were least likely to choose to achieve a personal goal while Native American respondents and first-generation college students most often mentioned the importance of being a role model to others.

Research on students with extremely adverse experiences (SEA) such as homelessness, abuse, or incarceration, found that students were able to reframe their past experiences and overcome the identity-based risks they experienced, such as a lack of community, safety concerns, and stigmatization. Hernandez et al. (2024) sought to understand the factors that enabled SEA to succeed in institutions that were not well-tooled to support them. They found that SEA “accepted the reality of having overcome many life challenges and recognized they had more room to grow in the context of higher education” (Hernandez et al., 2024). The students were able to leverage their community strengths to succeed in school and reframe their past experiences as critical capital to contribute to an on-campus community of peers with similar experiences.

- ***Some underrepresented groups place greater value on the communal benefits of higher education than on individual success.*** Motivations for pursuing postsecondary education intersect with cultural and ethnic identities. Research has shown that students of color express communal motivations for pursuing postsecondary education. Thiem and Dasgupta (2022) identify a “cultural mismatch” between contemporary United States university culture that emphasizes independence and self-reliance and low-income students who often come from families and cultures that emphasize interdependence and communality (Stephens et al., 2019; Thiem & Dasgupta, 2022).

Students from communal-oriented cultures are more likely to view college as a means to support their family or give back to their community (Stevens et al., 2012). Luedke and Corral’s research demonstrates a collectivist orientation of Latinx students who describe the utility of their degree as a means of giving back to their local communities (Luedke & Corral, 2024). Children of immigrants often make sense of their identity through their commitment and responsibility to their families. Leslie Lugueno’s research on family immigration history and college choice demonstrates that the experiences of the previous generation are a powerful motivator as students decide who they want

to be in the future (Luqueno, 2024). Students' strong commitment to their families served to build distinct beliefs about the purpose of college, creating a strong non-academic motivator for pursuing college.

Other academics have built upon these findings to broaden conceptions of a college-going culture from a model of individual success towards a communal orientation. Nancy Acevedo-Gil's "conocimiento" model integrates Chicana feminist epistemology with college choice models to highlight the importance of cultural knowledge and community resources in fostering a college-going culture. She explores how Latinx students reflect on the college information they receive in relation to their intersectional identities while preparing for college (Acevedo-Gil, 2019).

Social and Cultural Factors of a College-Going Culture

Conceptual framing and narratives are significant in motivating individual behavior. Environments shape individuals' beliefs about themselves, how they envision their futures, and whether or how they engage with academic opportunities.

- ***Educators and educational institutions play a crucial role in motivating students to pursue higher education and assisting them with navigating the administrative processes.*** There is general agreement that postsecondary advising should include individualized attention to students so that they can determine a path that best aligns with their goals (Kwakye et al., 2019; Wanti et al., 2022). However, educators and educational institutions do not serve every underrepresented group equally. A study focusing on Black male high school students reveals that many lack trust in their educators and school counselors, perceiving them as providing insufficient guidance for postsecondary education (Huerta et al., 2018). Even with counselors present, underrepresented students may not receive the essential support and guidance needed to navigate the college application process, as mere presence does not ensure meaningful engagement or effective communication.

Research on adults re-enrolling to complete a postsecondary degree underscores the importance of proactive outreach by postsecondary institutions, with successful re-enrollers noting the importance of an easy and straight-forward admissions process together with helpful and responsive staff (Gale et al., 2022).

- ***However, messaging should address a broader range of decision-making contexts to overcome disparities in postsecondary education access.*** For example, some researchers advocate for re-examining the role of family in the college choice processes, proposing a broader conceptualization of parental support that includes various familial and community networks, such as extended family, siblings, peers, and community members. Broadening support for college readiness to include support outside of the family can better address the decision-making contexts

of underrepresented groups. Studies have shown that non-parent family and community (NPFC) members play multifaceted roles in supporting students and fostering a "college-going culture." For instance, older siblings who have attended college can create expectations within the household, reinforcing the belief that higher education is an attainable goal.

Additionally, extended family members provide emotional support by modeling the value of education and encouraging students to overcome obstacles, ultimately establishing college-going as a norm through consistent interest in the students' aspirations and verbally communicating that a student should go to college (Mwangi, 2015). NPFC can also discourage the pursuit of postsecondary education. Research has demonstrated that the perspectives of an individual's non-parent family and community regarding topics such as the appetite for debt can significantly influence the development of a college-going culture (Wanti et al., 2022).

→ ***For those without family support, the social support of shared-identity peers creates better academic outcomes.*** Building a "college-going culture" among underrepresented youth relies heavily on support and encouragement from their broad social networks, including educators, family, and peers, as well as their beliefs about themselves and their futures. Research demonstrates the importance of support systems that encourage desired futures and help students connect their aspirations to concrete plans (Destin, 2021).

Information Consumption Preferences

Media

Many of the recent awareness-raising campaigns and movements focus on leveraging social media, digital platforms, personal stories, and trusted voices. Social media includes communication technologies such as Snapchat, YouTube, Instagram, Facebook, X, and TikTok that combine video, images, and text, often shared through networked profiles or promoted through algorithms based on user activity. Movements like Black Lives Matter effectively used social media to mobilize people and increase visibility through content sharing and videos. The "It Gets Better" campaign used personal stories from individuals to provide hope and support to LGBTQ+ youth. "March for Our Lives," led by young people advocating for gun control, used social media and storytelling to amplify the voices of youth impacted by gun violence. In addition to the content that may be motivating for underrepresented youth, we reviewed recent research on the media, platform, formats, and narrative constructs to which underrepresented youth are most receptive to receiving learning, education, and career information, with specific attention to video formats for engagement and information retention.

While the social media consumption habits of young people are studied, there has been little formal research into the effectiveness of these campaigns in motivating behavior change. In addition, despite the growing consumption of social media, it may not be the preferred format for accessing some types of

information. Research has demonstrated that contrary to common assumptions among educators, students want to receive information in person, not just on social media platforms like TikTok. While online tools can be beneficial, they should complement the efforts of qualified practitioners rather than replace them (Hofer et al., 2020).

While social media is suitable for disseminating information, increasing exposure to postsecondary information on its own may be insufficient to motivate intended behavior. The decision-making process regarding postsecondary education can be complex and overwhelming, leading to “choice overload.” Much research focused on postsecondary education decision-making emphasizes the lack of navigability of information or the lack of clarity around the returns or funding options for four-year programs. Other research focused on how students struggle to weigh various factors and options, causing them to rely on the most salient information with the most immediate returns rather than using the full range of information available (Hofer et al., 2020).

Regardless of the available information, situational factors may have more influence on educational decisions. DeLuca and colleagues’ (2023) research on how disadvantaged students make postsecondary education decisions emphasizes how students account for potential adverse shocks or events, often opting for shorter or less lucrative educational programs.

Formats

- ***Website and written material are the de facto formats for information on educational opportunities.*** However, traditional websites may not be as effective for engaging youth meaningfully. Studies by van Deurssen et al. (2011) and van Deursen and van Diepen (2013), which were reviewed by Hofer and colleagues (2020) have shown that many young people lack the skills necessary to navigate website functionalities effectively, impacting their ability to find information through selective searching. Websites aimed at sharing a wide range of information should be structured in a way that is conducive to the target audience’s cognitive capabilities and aligned with their information and processing preferences (Hofer et al., 2020).

Text messaging is one channel that has been increasingly used for outreach. The Delaware Department of Education is implementing a state-level college transition initiative and using personalized text message reminders to high school seniors and their parents (Resendez, 2022). Text message campaigns can help share helpful tips for navigating the enrollment process, send reminders about next steps and deadlines, and prompt actions by including links and automated responses to questions (Kenney et al., 2021). Randomized trials by Bettinger and colleagues (2012), Castleman and Page (2013), and Hoxby and Turner (2013), as reviewed by Castleman and Meyer (2020), have found that behaviorally informed text messaging campaigns can improve educational achievement and attainment, all campaigns were implemented while students were still in high school and focused on the college application or initial transition to college (Castleman & Meyer, 2020). It is unclear if the campaigns increased complex task completion or were effective

at introducing new ideas to students or families. In addition, it is unclear if the campaigns would achieve similar success for underrepresented populations not currently in high school.

- **Targeted videos can be an effective and familiar medium for individuals to access education and career-related information.** Videos are effective for engaging youth in education and information sharing, especially when optimized for mobile devices. As young people primarily consume short video content on their phones, this familiar and accessible medium combines visuals and audio to enhance message retention compared to text alone. Additionally, interactive features like embedded questions, prompts, and links can inspire action and further engagement.

Most research on multimedia presentations of information is on their effectiveness for learning. Research developed in partnership by Washington Student Achievement Council (WSAC) and North Central Educational Services District (NCESD) has demonstrated that informational videos can effectively engage students and families by leveraging appropriate behavioral science principles and learning. Research in educational settings found that multimedia instruction can help students understand complex ideas, increase student engagement, and support cognitive processing (Kwakye & Lacalli, 2023). Not only are videos effective, but they are also a familiar medium through which young people already engage in self-directed learning. Kwakye and Lacalli's research shows that integrating educational videos into students' regular schedules or environments ensures broader exposure to valuable information, reaching youth beyond those actively seeking the information (Kwakye & Lacalli, 2023). Educational technologies research provides valuable insight on how to improve the learning effectiveness of educational videos (Fyfield et al., 2022).

However, the effectiveness of videos is not guaranteed; intentional message framing and tailored content are vital. Messaging about one's options alone may be insufficient to convince someone to consider postsecondary education if they face identity-based risks or beliefs that it is not the right option for them. Speaking to the target audience's unique needs, lived experiences, and concerns can significantly enhance engagement. For example, research found that women and caretakers responded more favorably than other groups to messages referencing children, family, or other caregiving responsibilities (Kenney et al., 2021). Using messaging strategies and videos to augment, rather than replace, other efforts to provide tangible support for college access could help address common barriers (Kenney et al., 2021).

- **The messenger matters.** Partnerships with trusted organizations such as religious institutions, community-based groups, and local employers can effectively disseminate education and career information to underrepresented youth. These partnerships enhance communication credibility by coming from reliable, trusted sources, increasing engagement likelihood (Kenney et al., 2021).

Furthermore, messages from peers or others representative of an individual's local environment can positively impact their sense of belonging and expectations of success (Eccles & Wigfield,

2020; as cited in Lee et al. 2024). Peer models who express how they accomplished goals despite obstacles can help mitigate the identity-based risks associated with limited social capital, a mismatch to university culture, or a lack of exposure to future professional opportunities. In a recent study, Lee and colleagues (2024) developed a quasi-experimental design to provide role models through YouTube videos for community college engineering students. They found that students completing a reflection exercise after watching YouTube videos of former engineering students from similar backgrounds who successfully transferred to a four-year college received higher engineering course grades and had greater odds of enrolling in an engineering course in a subsequent term compared to the control group (Lee et al., 2024). Notably, Lee et al.'s experimental design enabled participants to choose whose YouTube videos they wanted to watch, allowing the participants to decide which persona was most relevant to them. The ability to choose increases interest and engagement in a task (Rosenzweig et al., 2019).

Recommendations

The literature review synthesizes research on the factors influencing postsecondary education decisions, particularly for underrepresented groups. The following takeaways are derived from the key findings regarding existing narratives, motivations, social influences, cultural factors, and information consumption preferences.

- ***Narratives about college outcomes often fail to resonate with underrepresented groups.*** Mainstream narratives on the value of a college education are often based on the experiences of affluent, predominantly White students and don't reflect the systemic disparities and unique identity factors (such as race, socioeconomic status, or family history) that significantly shape the college experience for underrepresented individuals.
- ***Financial concerns are a major deterrent, even with aid available.*** The psychological and administrative burden of financing college, coupled with a lack of financial literacy, can deter potential students from even investigating their options. Narratives about college being unaffordable persist, and many are unwilling to incur debt without a clear vision of the job and earning potential that a degree will provide (Golston, 2022; Herd & Moynihan, 2018; Kwakye et al., 2019; Kwakye & Deane, 2022; Kwakye & Lacalli, 2023).
- ***Personal and communal motivations often outweigh purely financial goals.*** While economic security is important, many underrepresented students, including Native American students and those from communal-oriented cultures, are more motivated by a sense of personal achievement or a desire to be a role model for their family and community. This communal orientation is a powerful, non-academic motivator that can drive persistence (Acevedo-Gil, 2019; Education Strategy Group, 2021; Gale et al., 2022; Hernandez et al., 2024; Luedke & Corral, 2024; Luqueno, 2024; Stephens et al., 2019; Stevens et al., 2012; Thiem & Dasgupta, 2022).

- **Educators and institutions may underestimate student interest and create barriers.** Research shows a significant disconnect between students' high aspirations for postsecondary education (nearly 90% in one survey) and educators' lower perception of this interest. This can lead to a "steering effect" where students are denied information and opportunities due to unconscious bias, creating a persistent pattern of underrepresentation. Furthermore, messaging needs to be proactive and the admissions process easy and straightforward to be effective for re-enrolling adults (Gale et al., 2022; Huerta et al., 2018; Kwakye et al., 2019; Shapiro, 2022; Wanti et al., 2022).
- **Social support networks beyond immediate family are crucial.** Messaging should broaden the concept of support beyond parental involvement to include extended family, siblings, and community members. These non-parent family and community (NPFC) members play a multifaceted role in building a "college-going culture," offering emotional support, reinforcing educational norms, and modeling the value of education. For those with adverse experiences, social support from shared-identity peers is particularly important for academic success (Destin, 2021; Mwangi, 2015; Wanti et al., 2022).
- **The messenger's credibility is as important as the message itself.** Information is most effective when it comes from trusted sources that can relate to the student's lived experiences. Partnerships with community-based organizations and messages from peer role models who have overcome similar obstacles can increase a sense of belonging and mitigate identity-based risks (Eccles & Wigfield, 2020; Kenney et al., 2021; Lee et al., 2024; Rosenzweig et al., 2019).
- **Video is a powerful but not universal medium.** While short, mobile-optimized videos can effectively engage youth and enhance message retention, they should be used to augment, not replace, in-person interactions with qualified professionals. Messaging in videos must be intentionally framed and tailored to the target audience's unique needs and concerns to be effective (Fyfield et al., 2022; Hofer et al., 2020; Kenney et al., 2021; Kwakye & Lacalli, 2023).
- **Traditional information formats have limitations.** Many young people lack the digital literacy to effectively navigate complex websites, suggesting that online resources need to be designed with their cognitive capabilities and processing preferences in mind. While text messaging campaigns have shown some success for high school students in the college application process, their effectiveness for introducing new ideas or reaching underrepresented populations not currently in high school is unclear (Bettinger et al., 2012; Castleman & Meyer, 2020; Castleman & Page, 2013; Hofer et al., 2020; Hoxby & Turner, 2013; Kenney et al., 2021; Resendez, 2022; van Deursen & van Diepen, 2013; van Deursen et al., 2011).

2. Qualitative Research

Methodology

Data collection included focus groups with individuals with similar pathway status or roles (enrolled college students, postsecondary student service professionals, and postsecondary education access professionals) and interviews with individuals (high school students, one recent high school graduate not enrolled in postsecondary education, and one postsecondary education access professional). The participants are distributed across the following groups:

- A total of 32 Central Washington University (CWU) students participated across eight group interviews, in which many self-identified as belonging to underrepresented groups, including first-generation college students, students of color, individuals with lived experience of homelessness, those from “poor” or “low-income” families, and those returning to or pursuing college as adults.
- Six (non-enrolled) youth participated in individual interviews. Five were seniors from Toppenish High School in Yakima Valley (located approximately one hour from CWU’s main campus) whose postsecondary plans included anticipating college enrollment immediately after high school (3), planning on college enrollment later (1), and not actively planning on college (1). The sixth was a recent graduate of Toppenish High School who was not enrolled in postsecondary education.
- Seven postsecondary student service professionals—CWU staff members from admissions, health promotion, food services, and programmatic areas—participated in a focus group.
- Six postsecondary education access professionals, primarily from organizations and foundations supporting disadvantaged youth. They were joined by a counselor and a staff member from the Office of Superintendent, who had expertise in career guidance.

Figure 1 and 2 below show the number of participants by gender, year of study, and whether the individual self-identified as first-generation, low-income, having immigrant parents, or being an adult student. Participants were not asked which income group, race, or nativity status they identified. This information was offered spontaneously, often in the context of explaining their perspectives on the research questions.

Table 1. College Student Participants by Gender, Year of Study, and Identity

Total Students		Gender (based on preferred first-person pronoun)			Year of Study in College							Identified as Underrepresented (First Gen, Low- Income, or Immigrant Parents)	Identified as Adults returning later in life
		She	He	They	1st	2nd	3rd	4th	5th	Graduated	N/A		
Students	32	19	11	2	6	4	10	6	2	1	1	20	3

Table 2. High School Participants by Gender, Year of Study, and Identity

	Total Participants	Year of Study in High School		Underrepresented (First Gen, Low Income, or Immigrant Parents)
		4th	Graduated	
High School Students	5	5	N/A	2
Recent High School Graduate	1	N/A	1	1

Note: High school participants were not asked their preferred pronouns.

Focus groups were 90 minutes long, and individual interviews were 60 minutes. They were conducted using a semistructured approach by a team composed of a facilitator and a note-taker. Facilitation guides were developed for each participant type by tailoring a set of open-ended questions and follow-up prompts (see Figure 3). While this served as a guide, the selection, phrasing, and order of questions and prompts varied in each conversation according to the flow, context, participant responsiveness, and timing.

This semistructured approach provided opportunities for unanticipated concepts or perspectives, while follow-up prompts were used if specific concepts of interest did not arise spontaneously. These prompts included concepts identified in advance by the project team based on key aspects of the project purpose and on themes and gaps identified in the literature review. Some prompts were added iteratively for concepts based on emerging themes not already covered in the initial guides.

The concepts the interview protocol was designed to gather information about related to the meaning people assigned to college, concerns about and motivations for pursuing postsecondary education, to what extent expectations and assumptions matched experiences of college, the information content and sources people accessed about college and other postsecondary options, and ideas for how messages, information, and support for decision making might be provided differently to help youth and adults to consider college.

The data collection team debriefed periodically, typically after every 2-3 groups or interviews. These debriefs were used to identify highlights and emerging themes, develop additional follow-up prompts where warranted, adjust any processes as needed, and engage in reflection and reflexivity about possible assumptions and biases that could affect the data collection, analysis, and interpretation.

Notes were analyzed using an inductive coding system to identify concepts and ideas.

Box 1. Interview Questions

QUESTIONS FOR POSTSECONDARY EDUCATION ACCESS OR STUDENT SERVICES PROFESSIONALS
1. <i>First, please introduce yourself and briefly describe your organization and role related to access to postsecondary education and/or supporting college students.</i>
2. <i>In your experience, what is at the top of students' minds when deciding whether to attend college?</i> <i>Follow up on: value/benefit; time and cost; availability of supports; sense of 'belonging' or fitting in; family, community, peer, and cultural norms and expectations; capability to succeed; missed opportunity to be earning</i>
3. <i>From what you have observed, how do decisions differ for different groups of students, including those who are underrepresented in college enrollment?</i>
4. <i>What do you wish prospective students understood better about the option of postsecondary education? How would you convey it?</i>
5. <i>What needs to change in the conversation about college? What could be different in how college is talked about?</i> <i>Follow up on among/by whom: students, families, teachers, advisers, colleges, funders/support providers, media, other influential messengers</i>
QUESTIONS FOR CURRENT COLLEGE STUDENTS
1. <i>Please introduce yourself and share what you are studying, what year you are in, what campus or program you attend, and what you were doing before you enrolled (for example, straight from high school, other training or schooling, working).</i>
2. <i>How would you describe what it means to you to go to college?</i>
3. <i>Think back to when you were deciding whether to go to college. What was most on your mind?</i> <i>a. What were you most excited about?</i> <i>b. What did you worry about?</i> <i>c. Follow up on: value/benefit; time and cost; availability of supports; sense of 'belonging' or fitting in; family, community, peer, and cultural norms and expectations; capability to succeed; missed opportunity to be earning</i> <i>d. What other options did you consider? How did you decide?</i>

4. *If you could go back in time, what would you tell your former self?*
 - a. *What surprised you? What did you expect or assume that didn't turn out that way?*
 - b. *What do you wish you had understood better? How could that have been better communicated to you or shared with you?*
 - c. *What would have convinced or helped you do anything differently?*
5. *What needs to change in the conversation about college?*
 - a. *How did you learn about options for after high school? (prompt about family, educators, advisors, peers, media, social media, other)*
 - b. *How was college typically portrayed?*
 - c. *What could be different in how college and other options were talked about?*
 - d. *Who needs to be more involved in the conversation?*

QUESTIONS FOR HIGH SCHOOL STUDENTS

1. *Please introduce yourself and tell us what path you are planning for after high school (for example, enrolling in college, pursuing other training or educational programs, seeking employment).*
2. *What has been most on your mind as you choose what path to pursue after high school?*
 - a. *What were you most excited about?*
 - b. *What did you worry about?*
 - c. *Follow up on: value/benefit; time and cost; availability of supports; sense of 'belonging' or fitting in; family, community, peer, and cultural norms and expectations; capability to succeed; missed opportunity to be earning*
 - d. *[If not pursuing college] Under what circumstances might you consider college? What would be different?*
3. *How did you learn about options for after high school? (prompt about family, educators, advisors, peers, media, social media, other)*
 - a. *How was college typically portrayed?*
 - b. *What could be different in how college and other options were talked about?*
 - c. *Who needs to be more involved?*
4. *What do you wish you had known more about earlier or understood better? How could that have been better communicated to you or shared with you?*
5. *If you could go back in time, what would you tell your younger self? What would have convinced or helped you do anything differently?*

QUESTIONS FOR RECENT HIGH SCHOOL STUDENTS AND GRADUATES

1. *Please introduce yourself and tell us about your current situation, such as whether you're working or seeking employment, or if you've participated in any training programs after high school.*
2. *What was most on your mind when you chose the path you are on?*
 - a. *What were you most excited about?*
 - b. *What did you worry about?*
 - c. *Follow up on: value/benefit; time and cost; availability of supports; sense of 'belonging' or fitting in; family,*

community, peer, and cultural norms and expectations; capability to succeed; missed opportunity to be earning

3. *Looking back to high school, what do you wish you had understood better about education and employment options?*

- a. If you could go back in time, what would you tell your former self?*
- b. What would have convinced or helped you do anything differently?*

4. *One thing we are trying to learn about is how people view the option of whether to go to college. When making your plans, did you consider college? Why or why not?*

- a. Under what circumstances might you consider college? What would be different?*

5. *How did you learn about options for after high school? (prompt about family, educators, advisors, peers, media, social media, other)*

- a. How was college typically portrayed?*
- b. What could be different in how college and other options were talked about?*
- c. Who needs to be more involved?*

Findings

The research sample includes mostly people currently engaged with an education credential-issuing institution, including a high school and a university (Central Washington University). Most of the student sample includes individuals with identity factors associated with underrepresentation in postsecondary education. While the research participants provided significant input on the conditions, learnings, and other factors related to college perseverance, the summary below prioritizes key themes useful to informing messages related to the decision to investigate or pursue postsecondary education. However, we have limited information about adults who are eligible to pursue a postsecondary credential but have never enrolled in a postsecondary educational opportunity, given the challenges of identifying and reaching out to this population within the parameters of the project.

Deciding to Pursue Postsecondary Education

College Student Perspectives

Students who are currently enrolled in college reported a wide variety of concerns, assumptions, experiences, and feelings when asked, “Think back to when you were deciding whether to go to college. What was most on your mind?” Many students spoke about their early experiences of college, as opposed to their recollections of their hopes, concerns, or motivations when they decided to pursue college. It is unclear how well students can recall their minds prior to starting college, as those memories are filtered through students’ college experiences. In addition, many of the comments refer to the students’ recollections of what was top of mind as they were preparing to attend college as opposed to an earlier point in time when they were deciding to pursue college.

Students who did try to describe their minds at the time they were deciding to go to college primarily discussed cost, the value of college, expectations about student life, and the path towards their longer-term career ambitions.

- ***Cost and affordability are top concerns for students when they are deciding whether to go to college.*** Many of these students’ first reactions to the idea of college was that it was simply unaffordable to them. Student concerns focused primarily on their ability to pay tuition, other associated costs, and living expenses. In discussions about affordability, many included commentaries on the role of their parents or the socioeconomic status of their own family, for example: *“I was trying to figure out how to pay for school. I have three siblings, and my parents could not help and were not well off to help support me with college even though [they are] hard-working and wanting to help. I had to figure out my own way to pay.” (FG6-556)* Notably, the price of college was not questioned. In fact, participants did not explicitly question the price of college in terms of whether it was too high or unreasonable for what was offered. However, they

expressed concerns about affordability, particularly in terms of their personal ability to pay. This concern was tied to a perceived deficiency in their own financial situation, not necessarily a critique of the inherent value of a college education relative to its price.

- ***Perceptions of cost and a lack of knowledge about financing options may deter students from investigating postsecondary options for themselves.*** Students' perceptions of the high costs of college deterred some students from exploring actual costs or investigating financial aid options. It is notable that in all the discussions about affordability, few discussed how they were financing college. One or two students shared a specific scholarship they were benefiting from, but few discussed details about how they were financing college. Students had limited insight into how their peers manage expenses or access financial resources and information, creating a sense of isolation regarding the financial experience of college.

The lack of conversation and specifics around financing college and the seemingly individualized experience students seemed to have financing are in stark contrast to the narratives around student debt.

"Applying to financial aid... I was doing [that] all on my own." (FG3-299)

"I was always told to apply for financial aid and scholarships but I did not know where to apply and I found online a lot of websites that were scams and you do not hear anything back so I was trying to get scholarships but it was hard to find them as well." (FG4-403)

"My stepdad did not know how it worked [to pay] even though he was American. No one knew how much money it was going to cost." (FG6-589)

"I still do not know how much I owe... I do not know people with the situation that I am in and no one is open as I am ... and finding people [to ask] is hard and the ones that went to college they had a full ride so it didn't really help." (FG7-699)

"I had to find it myself and I was not taught anything." (FG9-970)

"Information on financials is really hard to find and even looking at FAFSA is hard to navigate and hard to identify what a dependent or independent actually means and I did not know how it worked for me and if I am allowed to receive certain grants." (FG9-983)

- ***Debt, and the fear of debt, appear to be a significant and widespread deterrent to pursuing college.*** Participants are mostly students enrolled in college or have already decided to pursue college; thus, most have found a way forward in spite of the affordability challenges. While most students did not share details on how they are personally financing college, comments regarding debt were universally negative. Media coverage of student loan debt and students' experience with their family's debt inform a fear of debt among the student participants:

"I was told that college so much costs so much and get student loans. All those stories online about spending your whole life paying off loans." (FG4-366)

"My family was always in debt, and I didn't want to end up like that. I did not want to be in debt forever." (FG6-607)

For some, financing college through debt was not an option (*"I would not have attended college if I was going to go into debt."* (FG8-796), leading students to seek ways to balance school and work.

- ***Some students recall concerns related to social and community life.*** Students recall concerns about fitting in and finding a place to belong. Some described themselves as shy and shared concerns about not being able to make friends or worries about being isolated.
- ***For many, particularly among students from underrepresented groups, the decision to attend college was an outcome of the discovery of a career or life goal.*** For these students, the college decision was a stepping stone to their larger goal rather than an intrinsic aspiration or goal itself. These students connected the decision to pursue postsecondary education with experiences or exposures to careers or a clear understanding of the requirements for their desired careers. For example, for those college students pursuing teaching, counseling, a medical degree, a law degree, or an aviation license, college was seen as a necessary path or prerequisite to fulfilling requirements to enter certain fields:

"Once I realized I wanted to be a teacher [I tried]. I did an internship with fourth graders ... when you spend so much time in a classroom, I realized that was my purpose, and that's when I realized I did want to go to college." (FG3-269)

"It is more something I have to do to get my [teaching] certification." (FG6-542)

"It's not like you want to do this but to do child therapy, you have to have a degree." (FG7-706)

"Once I decided what I wanted to do, I realized I needed a bachelor's [degree] to do the things I wanted to do." (FG8-805)

High School Student Perspectives

High school students shared concerns similar to current college students:

- ***Concerns regarding the ability to pay for college.*** Having not yet transitioned into college, high schoolers were facing the unknown of how they were going to pay for college: *"how they were going to pay for it" (HS1-1024)* and *"wanting to find a balance between education goals and financial worries."* (HS2-1179) Their financial circumstances figured prominently in their decisions about postsecondary education: *"What if I have no money in college, should I even go?" (HS5-1409)*

- **Debt was also a concern and seen as a negative to avoid.** Being younger, high school students had limited experience with debt. Their impressions and concerns about debt were filtered through media portrayals of debt and their observations of the adults around them: *"My mom is still in debt from college, and it makes me rethink me going to college."* (HS5-1405)

They also had concerns that are distinct or differentiated from college students.

- **High school students had more frequent concerns related to social and community life than college students.** Unlike their college counterparts, high school students voiced anxieties about their anticipation of the unknown college community. Many expressed fears about finding a sense of belonging or the ability to build a community: *"I am very shy, and I am scared that I will not be able to make friends."* (HS5-1434) The transition to college represented a significant social adjustment and many were unsure if they could navigate successfully.
- **High school students were more concerned about their academic preparedness for college.** Many worried about whether their current academic abilities would be sufficient for the rigors they expected from college. These concerns sometimes stemmed from prior high school experiences: *"I am not the 'smart kid,' and I rethink all my choices, and I am scared I won't be able to pass."* (HS5-1422) This fear of underperformance or failure contributed to hesitancy and uncertainty about pursuing postsecondary education.

Having not yet attended college, many high school students spontaneously shared things about college that excited them, such as being in a new community and having more independence.

Postsecondary Education Access and Postsecondary Student Services Professionals Perspectives

The postsecondary student services professionals, employed by Central Washington University, tended to share their observations of the perceptions and concerns of current postsecondary students, as opposed to factors that influenced students' decisions to pursue a postsecondary credential, with the exception of staff working in an outreach position. Postsecondary education access professionals shared information from their observations of both prospective and current postsecondary students.

While also citing affordability as a concern among students, responses focused on two additional items:

- **Shifting perceptions about the value proposition of college.** Postsecondary student services and education access professionals report growing public skepticism about the value of postsecondary education as a worthwhile investment, leading potential students to consider whether alternative, less costly pathways might offer comparable opportunities for economic stability or career success. Additionally, they recognize that some individuals face an immediate need to prioritize earning an income over pursuing further education.

Education access professionals, especially the staff of organizations that work with high school students and adults who have completed high school and are coming back to pursue a postsecondary credential, report that the cost and value proposition of college figure prominently in the decision-making. For individuals who have a life that depends on their earned income, the costs to pursue college are even greater. Education access professionals also share that the cost of living keeps college unattainable for some despite generous financial aid packages.

→ ***A persistent doubt among underrepresented students that college is meant for them, or they are meant for college.*** One theme distinguishing the responses of postsecondary educational access professionals is the observation that many current or potential students have an underlying doubt that college is for them. These professionals report that many students, particularly those from underrepresented backgrounds or weaker academic records, grappled with self-doubt, questioning whether college was “meant for them.”

Educational services professionals report that students often perceive logistical hurdles as signals that they aren’t welcome or capable. Although some college students interviewed for this research did express concerns about academics, fitting in, and logistical barriers, they did not typically express this as a doubt about whether college is meant for them. The professional participants report that the lack of representation among peers and faculty is taken as further evidence that these systems are not designed for these students who are “discouraged from continuing in a system where they feel unseen and unsupported.” The professionals interviewed described that, for the students they serve, previous negative experiences with educational systems and a general distrust of institutions can compound this cycle. Those with negative high school experiences were particularly apprehensive about their ability to succeed in a more demanding environment. They questioned if they should continue their education and persist, given the challenges they face.

“We hear from students of color - and in Washington State, 50% of students are of color and the teachers are 80% white - that the teachers do not match me and they do not not understand what I am going through and I am surviving and not thriving and so why would I want to continue to stay in a system that is not culturally relevant to me... Why would you want to stay in structural racism and the system?” (FG2-172)

In addition to the significant financial and logistical challenges to pursuing postsecondary education, the cognitive framing that college institutions are not meant for them, built for them, or accommodating to what they can offer is a significant barrier for these students. Professionals report:

“Anything they face that is another complication [leads to] ‘Do I want to stick around, do I have what it takes?’ and ‘I have to do this form and then another form and then another form and am I supposed to know this and where is the information that helps me understand all the steps I need to go through and need to go through successfully. ‘We saw this season that once families were

not successful with getting through the FAFSA process, they concluded, 'Oh, I guess it is not for me. This system did not work for me, and this system did not want me to get through this process.'"

"Every interaction. If a financial aid office is busy, that means that they do not want to help me. If they get any form of rejection, they personalize it." (FG2-195)

"If you have an emergency and it makes it so you cannot go to school and you do not pass your classes, it affects your ability to get financial aid the next year. The pebbles for some people are huge. The students who need the most support get put through hoops. If the systems were more flexible with students coming in with unique systemic barriers they are facing, that would be better." (FG2-229)

These barriers may be experienced similarly by more represented students, but the risks to underrepresented students may be greater given their limited resources and lack of a safety net.

Drivers for Pursuing Postsecondary Education

The "meaning" associated with college

This research aims to identify the meanings that individuals assign to college and the relationship between those meanings and a person's sense of whether college is a fit for them. The interview protocols were designed to gather information on the "meaning" participants assigned to college, including questions such as "What does it mean to you to attend college."

Economic Security

In response to questions about the meaning of college, most students currently attending college discussed the long-term potential for economic security as the meaning they assigned to college. Many college students reflected that they viewed postsecondary education as a vital investment and a pathway to a more secure future, offering opportunities to escape living "paycheck to paycheck" and access to "good" jobs. College was seen as a foundation for long-term stability, freedom from worry, versatility, and success in life.

Some students describe this goal in relation to their status as a person from a low-income family, first-generation students, or those with immigrant parents. For these students, college represented an opportunity to stray from the life course and circumstances of their parents: *"I am the only one in my family to go to college but to get out of poverty and actually do something that is not hard labor"* (FG7-675). First-generation students who witnessed their parents' financial hardships without a college degree described higher education as an "easier path" to financial stability.

Many of the high school students who were planning to attend college or trade school also cited economic security as a main motivation. Some of the postsecondary education professionals said that students who are disengaged with the education system – those outside of K-12, typically adult students – come back to consider postsecondary education because they see the value and payoff, although this does not dissuade the affordability concerns they often have at this point:

"I see students who have been pushed out of education systems and come back because they typically see the value of [postsecondary] education, so [what is on their mind] it is more so like can I actually afford this." (FG2-124)

Opportunity and Freedom

Some students described what college means to them as "opportunity and "freedom." "Opportunity and freedom" included the opportunity to start over from high school circumstances, leave family, and gain independence, as well as the opportunity to pursue professional and personal goals, or thirdly as a means to escape poverty, to achieve upward mobility, or gain stability.

The students who felt that college represented "freedom" framed it in terms of independence from their family, leaving their high school circumstances behind, and the ability to make their personal choices. Students anticipated making new friends, exploring new opportunities, and experiencing life in a more self-directed way:

"For me, I think opportunities and freedom. As American as that sounds, I was able to get out there and I come from a small town, Wenatchee, and I was able to be somewhere that was not home and do things on my own, which I was not used to, and deciding what to do on my own... and having my own room at the dorms was pretty cool and time to hand out and study." (FG4-344)

"I was most excited about starting over in a new place, new town, new people, new classes, and I could redesign myself as a person." (FG6-571)

"I was excited about the freedom and having free reign over my own life." (FG4-374)

"and also excited about the stepping stone to live away from my family." (FG5-455)

Others framed "opportunity" as the opportunity to pursue professional and personal goals.

"Sometimes the purpose is to hang it onto your wall and say you did that!" (FG8-777)

"It is really about who you are and who you want to be and how to set yourself up." (FG4-340)

"To show other people and myself that I am not worthless and I can do it." (FG8-807)

"Having the opportunity to grow and pursue and make my dreams come true." (FG9-926)

"The opportunity through expressing myself and my community through film and education." (FG9-930)

Other students framed "opportunity and freedom" as a means to escape poverty, achieve upward mobility, or gain stability:

"College means an opportunity for me to be better off." (FG3-256)

"A deliberate step forward in your life to somewhere else." (FG8-774)

"It means I get to set myself up for a great future... I just want a better life." (FG4-341)

"I wanted more mobility and versatility that the college degree can give you and the certification gets you." (FG8-790)

"I would like to not live in poverty, and maybe I will not be super poor, and that is why I am here [at college]." (FG4-336)

Communal goals, roles, and obligations

Some students, particularly underrepresented students, framed the meaning of college in community and familial terms, for example:

"My degree is not just for me; it is for my family. I am here for my parents." (FG3-259)

"It is a big deal for me. I am a first-generation [student] and the oldest sibling of four. It is a way for me to create a path for my younger siblings and to be a role model for them. They are doing better than I am now, and I wanted them to learn from my mistakes [in] my college years, and they have learned from that. My parents are proud of me, and I feel accomplished for leading the pathway for my siblings to have a purpose in life." (FG4-332)

"...a way to show my son no matter what barriers you can still study and learn and continue to learn." (FG8-780)

Motivations

Most students responded to questions about what college means to them by describing their personal motivation for attending college.

Parent influence

The most common theme among student descriptions of their motivations for college was a positive parent or immediate family influence or expectations. The motivations ranged from a sense of obligation to following in the footsteps of a family member and meeting family members' expectations:

"I remember it was always my goal and my family's goal, and there was no second option for me." (FG3-271)

"They had a lot to do with why I went to college; I had grown up with a young mom, and my aunts and uncle went to college and seeing people go to college, and my mom went to a technical school for dental assisting and they say 'Ooh, you should because your mom went to school.'" (FG6-591)

"I am also first gen and have an older brother and was following in his footsteps. Everything lined up – my brothers [went here] and my mom [works here] and teachers directed me in different ways. My brother went here, and it seemed like he was having success, and so I followed him and did whatever he did." (FG5-435)

Others took inspiration from their parents' and immediate families' experiences as a reason to pursue a different path.

"I grew up with divorced parents and lived with my mom – basically single mother and my family none of them got a college degree and got to see how much a college degree helps you, ...how much it can really impact your life later on." (FG8-791)

"I knew I did not want to be in the same situation as my family and parents and I knew I wanted to go and was going and did not know the path but knew I was going." (FG8-792)

Significantly among children of immigrants is the desire to honor their parents' hard work through achieving a higher academic status than their parents were able to achieve.

"I remember I felt like I had to go to college to show my parents that all their work as immigrants was not for nothing." (FG4-355)

"A dream come true for me and my mom's and every immigrant's pride to see their child graduate and go to the next level." (FG10-1663).

Influence from Non-Parent Personal Connections

In addition to their family context, many students who were already in college and high school students who were planning to enroll in college referred to their relationship with another person, typically an older person, as a primary motivator for deciding to go to college. The advisors or connections were often, but not exclusively, family members, teachers, or counselors who provided encouragement, practical advice, and targeted information to help students see themselves as "college material." These connections

helped students navigate complex systems, clarify their options, and alleviate some of the overwhelming aspects of their decisions.

Among a congress of adults who likely had opinions, views, or advice on what these young people should do, it is unclear why these specific people's opinions had more influence on the young person's decision-making. In their recollections about decisions to pursue a postsecondary credential, these students often related their galvanizing interactions with these non-familial personal connections to discovering something about themselves, such as a skill or talent that could be cultivated or clarified what they wanted to pursue. Others described an interaction that reshaped their self-belief, particularly in overcoming the notion that they were not college material. These young people felt seen or knowable to these older personal connections and thus gave more weight to the feedback, suggestions, or advice. In this case, the valuable expertise was not about the pathways, institutions, or financial aid but rather valuable insight into the young person specifically or the young person's circumstances.

While these older personal connections did not always present all possible pathways, the options they did share carried significant weight and were often the ones students chose to pursue. Most participants did not share specific messages that these personal connections conveyed. It is unclear the degree to which the motivators are the same for adults who have transitioned into adulthood and have life experience beyond high school.

Career Goals

Following influences from people, career aspirations and job goals were the next most frequently discussed motivations for deciding to pursue college. Postsecondary education was viewed as a means to an end—a necessary step toward achieving larger career objectives rather than a goal in itself.

Underrepresented college students and high school students, who were either low-income, first-generation, or had immigrant parents shared this perspective more so than the students who did not self-identify as belonging to these categories. Underrepresented participants framed their decisions around specific career paths and destinations more so than students who did not identify as belonging to an underrepresented group.

College and high school students also framed their decision-making about postsecondary education through the lens of their work exposure and experiences. Their goals shifted based on what they experienced or observed, either solidifying a target career or prompting a decision to avoid certain types of careers. Exposure to specific roles, such as nursing or skilled trades, through internships, work experience, adult family friends, or life experiences was a strong motivator for pursuing further education, as these careers often required formal credentials or a degree. For others, their decisions were shaped by negative experiences in undesirable job conditions. Students who worked in minimum-wage jobs, such as retail or fast food, frequently expressed a desire to avoid similar paths after witnessing the challenges faced by adults in those roles. These experiences and perspectives noted in decision making and motivations were more common among underrepresented students as well.

There was a smaller subset of college students we heard from who had felt college offered an opportunity to discover interests and personal exploration. Some also added secondary motivations for social and extracurricular opportunities, a love of learning, personal growth, or campus community. This perspective was more common among students who did not identify themselves as belonging to an underrepresented group, meaning either low-income, first-generation, or having immigrant parents.

Postsecondary education is not universally seen as necessary to achieve economic security

For those considering or who have chosen a pathway other than college (high school students in the process of deciding and a single participant who chose an alternative pathway), beliefs about the cost and value of education were cited as the main motivators for not pursuing a college degree. Pursuing a certification that is quicker than a four-year degree or attending a trade school or community college appealed to people who were concerned about the cost of college. The recent high school graduate who chose an alternative pathway cited immediate economic need as their motivation to pursue employment after high school.

While most enrolled students saw postsecondary education as a pathway for their own economic security, indeed most cited this as a main motivator for going to college; it wasn't necessarily viewed as the only pathway toward economic security. Some enrolled students described family members who were economically secure without a degree or described other options, career pathways, or jobs that did not require postsecondary education:

"My cousin told me that once you are working you do not want to go to school because of the money [you are earning]." (FG5-509)

"There alternatives [to college] ... to be happy and successful... trade schools and other ways to make income." (FG4-424,427)

"My mom got a bachelor's and my dad got his AA but was in mechanics, and he brought a lot of money in without a degree, and I had a skewed view that because my dad had a blue-collar job and makes bank, that means you can make money without a degree." (FG8-800)

"I saw the high salary capacity of blue-collar work, and there is a spot for me in the truck driving company my dad has... you do not need college to make money, but it depends on what you want to do." (FG8-872)

"My boyfriend has the abilities for trade school, and I encouraged him to go down that path instead, and it should not be a one path fits all." (FG8-880)

Finding Information on Postsecondary Options

Information Sources

Almost all the participants were current college students or high school students who had elected to pursue a postsecondary credential. Not surprisingly, many received information about postsecondary options from services at their high schools (teachers, college centers, counselors, and field trips) or through college fairs and institution recruitment materials, suggesting that, in general, our research sample found information through existing communication channels.

Second to formal school or institution-based information sources, participants got information about postsecondary options through family, friends, and other parts of their personal networks.

Many college students also reported researching on their own using Google, college list books, articles, and social media. Some resorted to researching on their own due to perceived capacity constraints of the counselors and other resources that were available to them. Many college students described having difficulty navigating information about financial aid or financial support systems – this was especially the case for underrepresented students whose personal networks did not have experience with financial aid.

When asked, college students reported that traditional media, including film or TV, often portrayed college in extremes—either as a place for non-stop socializing or as a purely academic environment—both of which felt disconnected from students' lived experiences:

"I was under the impression that college was party city that everyone goes out and no one does homework ... that is what the media showed me and so that is the impression that I was under even though I knew that wasn't really real ... and then the other side of it shows like extreme essays and an extreme whiteboard with tiny equations on it" (FG6-651).

Students did not attribute their decisions to attend postsecondary education to traditional media, but they acknowledged their presence.

On the other hand, social media served as a more direct and impactful source of information about college and careers. Some students, mainly those currently in high school, reported that targeted, algorithm-driven content, such as vlogs and day-in-the-life videos, offered valuable insights into various topics. For instance, about specific career pathways, a student said: *"Ever since I started to pursue nursing, I get nursing TikToks and [I] follow them, and they tell us the opportunities that they have, and I consider the opportunities they are doing and I do not really hear the scholarship parts but they say how to study for quizzes and how school is."* (HS5-1473) Another student mentioned scholarship and application tips: *"There are videos about scholarships and the hardest majors or examples of college applications where the student got in."* (HS4-1357) This personalized exposure was particularly useful for students exploring career paths: *"If I didn't look into social media, I would not have known all the things I*

know now.” (HS5-1478) Other students, both high school and college students, did not think they got much information or ideas about college from social media.

Information Gaps

As a follow-up question, student participants were asked what they wished they had known when they were looking for options on postsecondary pathways. The topics for which they struggled to find information were around the cost and financing of postsecondary options, more emphasis on options outside of four-year degrees, earlier opportunities such as running start, more information about the day-to-day experience of college or career paths, and more specific or relevant information on study areas, career options, and majors.

Some participants described feeling overwhelmed by the volume of information available about postsecondary options. The lack of guidance or direction toward information that would be helpful for them specifically made the process of finding information stressful and anxiety-inducing. Many students also struggled to navigate the abundance of options, prioritize relevant details, or determine the credibility of information sources. This created tension: many students wanted more information to make informed choices, but some felt paralyzed by the amount of information to sort through.

Multiple Demands on the Attention of High School Students

Some college student participants acknowledged that during high school, they were uninterested in information about their postsecondary options, even when readily available. Many expressed some regret about not starting their decision-making process or thinking earlier. However, when asked what would have made them more receptive to the available information, many said they were not sure any additional information or information channel would have changed their decision-making. Many recall having limited capacity to think about more than their next step as they were “just trying to finish high school.” This suggests that they lacked the capacity to absorb new information at the time. While they may, in hindsight, wish they had sought out more information, it’s possible that additional information would not have been the solution, particularly for high school students. Introducing another speaker or more content might not have helped, as their limited time, dispersed focus, and the effort required to process information made it difficult to identify and absorb information that was relevant to them.

When prompted for ways they would have paid attention to the information available, a few college students suggested that hearing about the consequences of their decisions or pathways or hearing from other students who had similar experiences and life circumstances might have motivated them to pay closer attention and make more informed choices.

Messaging seemed too narrow or too siloed

Students in college reflected that they often received limited or overly simplistic messaging about their postsecondary options, typically framed in binary terms. They were typically given one pathway – whether

that be to pursue a four-year degree or to work after high school. If they had information about multiple pathways, these paths were rarely presented together in a single conversation or by the same source of information (college visits, counselors, teachers, peers, family, or work experience and exposure). Instead, students encountered fragmented guidance, with each source offering information about only one specific path. This lack of integration often left students unaware or not welcome to alternative pathways, such as technical schools, apprenticeships, or community colleges. It hindered nuanced discussions about the full range of opportunities available to them. These messages tend to present the pathways as competing options, requiring students to pre-select a pathway to sort through the information. Or, others were sorting students, steering them towards a pathway based on assumptions or biases about which students should be or are “college-bound.” The options are portrayed as linear and siloed, as though choosing one determines the rest of their lives. Instead of focusing on the students and their decision-making processes, the conversation becomes more about “selling” each pathway, as if by separate salespeople. Typically, we heard that most family information presented one path as the correct option, and their encouragement or discouragement had a significant impact on the student’s choice. Similarly, peers and certain high schools often reinforced assumptions and expectations about acceptable options.

Social Media

When prompted, some students mentioned that social media shaped their current perceptions and ideas about college and career decisions. As platforms become increasingly algorithm-driven and tailored to users’ interests, individuals are using them as a tool for career exploration. For instance, students shared that they watch vlogs, “day-in-the-life” videos, or similar content to gain insight into the daily experiences of professionals in careers they are considering.

However, the role of social media cuts both ways. Social media can also discourage the investigation of or pursuit of postsecondary education. Some students report encountering narratives about student debt through social media, creating significant concerns and contributing to widespread misconceptions about the costs of postsecondary credentials. Highly targeted content can reinforce misconceptions.

Erroneous Assumptions about Postsecondary Education

In sharing about their college experience, many current college students shared some narratives or myths that they believed about college that turned out not to match their experience of college. In most cases, these were things that could be deterrents for deciding to go to college that, for these students, didn’t pan out to be an obstacle. Some of the narratives proven wrong include:

→ ***Some recalled expecting college to be much more academically challenging than it proved to be.***

For these students, many tied their assumptions about the academic challenge of college back to their high school teacher’s warnings. For example, comments such as “[High school] teachers always use scare tactics. They say ‘college is going to be so much worse’ - like then I don’t want to go. All the teachers did this and said that college is 10x worse. It actually is better than high

school" (FG6-628) and "I thought college was going to be difficult and giant mountain you have to pass through. It is not that difficult" (FG10-1701) garnered some agreement among participants. Notably, much of this input came in response to the question, "what else would you like us to know?" suggesting that college students find these narratives around the academic challenge of college significant to their and their peers' decisions about whether or not to pursue college. It is unclear if high school teachers rely on this narrative because they believe it to be true or for other reasons.

The preponderance of concerns related to academic preparedness among high school student participants could be an outcome of this narrative. High school students, although all were on a pathway either to pursue college or trade school, echoed these narratives in expressions of concerns associated with college around their own abilities. A comment from a high school student aiming to go to college but still considering stated as such:

"For college it is the less hands-on with the professors because here there are 30 people max and if I go to UW there will be over 100 people in a class and I am always one to ask for help or clarifying questions and I just do not know if I could learn the same and I would struggle more." (HS4-1296)

This quotation demonstrates how narratives around the challenge of college are filtered through high school students' concerns over their ability and preparedness. Additional research is needed to determine how impactful this narrative is on the decision to pursue a postsecondary credential, as all the participants who shared this concern decided to pursue college.

- **Similarly, students expected professors to be more foreboding and stricter than they turned out to be.** Comments such as *"I did not expect the pros to be so laid back" (FG8-837), "there are memes that high school will talk about how serious college is and how serious your college professors will be. It makes it so serious but really it is about learning" (FG9-1003), and "I was also told that the professors would be strict but they actually want to get to know you and want to keep in touch" (FG10-1703)* speak to the narratives that could dissuade some high school students from considering a college pathway from themselves.
- **The social life of the college was more positive than expected.** Less frequent than concerns related to academic preparedness, some current college students had expected college to be more isolating or cliquey than it turned out to be. Some expressed this in terms of comparing the social experience of college favorably to the social experience of high school. Those who had concerns about being isolated or challenged to find social connections with other students reported that it was much easier to do so than expected. For example, quotes like *"I thought after the first week everyone would go back to their rooms and rot and that is the complete opposite. There are always people hanging out and the residents walking around and always someone to see or activities at all times. I did not think that there are activities every day of the week and I love*

that" (FG6-579) and "I expected it to be lonely and hard to make friends but going in it is so easy to make friends and interact and everyone would talk to you." (FG8-826)

Recommendations

The insights shared in this section are based on hindsight reflections from mostly college students. While these reflections come after the transformative experience of attending college, these retrospective insights highlight key messages that students wished they had encountered earlier, which could potentially benefit others in similar situations.

- ***Existing messaging may encode bias about who is “college material”.*** Many students participating in the research reported relying on their school counselors or high school career and college centers for information, but access to advising and resources varied widely. Education services professionals reported that counselors and adults generally may hold preconceived ideas about which students should be or are “college-bound,” possibly influencing who receives encouragement and information.
- ***Earlier and broader exposure to postsecondary options is needed.*** Student participants advocated for conversations about postsecondary education and careers to begin early, even before high school. They preferred information sources that presented all pathways—such as trade schools, technical schools, community colleges, and four-year universities—in a single discussion rather than focusing on just one option.
- ***There is a specific need for information about postsecondary education options tailored to people who are beyond high school.*** Adult students, some college students, and postsecondary education service professionals mentioned that outreach and engagement regarding education should extend beyond high school to reach students who may decide on postsecondary education outside the traditional timeline. Research suggests that returning adults were more likely to be motivated by factors such as career advancement and increased earning capacity rather than intrinsic motivators such as personal growth and self-discovery. However, additional research is needed on the motivations and specific needs of potential adult enrollees.
- ***More targeted information tailored to the potential individuals' specific needs, interests, and career aspirations.*** Students who participated in the research valued guidance from individuals who understood their unique goals and could offer career-focused advice, finding this far more helpful than generalized recommendations.
- ***A desire for more decision-making support to help individuals weigh options and navigate choices rather than feeling pressured or steered toward a specific pathway.*** Targeted information resources for parents, whose influence figures prominently in students' decisions about whether to pursue postsecondary education, would be helpful. This is a significant need for families who use a language other than English or parents who do not have postsecondary experience.

- ***A need for relatable examples of how people finance college.*** While affordability is a common concern and top of mind when considering whether or not to pursue a postsecondary credential, how to finance and manage the cost of college was a highly individualized experience. Many university students who participated in the research reported navigating the complexities on their own, lacking sufficient information, or and remaining uncertain till this day about aspects of their college financing.
- ***Decisions can evolve over time and multiple pathways are possible.*** Students in college reflected that they wish they heard options presented to them in a way that emphasized, in a serious manner, consequences of action or inaction, but also valued messages highlighting the possibility of changing one's mind and pursuing more than one pathway during one's learning journey and career.
- ***Social media may be able to approximate the personal connection or role-model relationship that high school students find helpful.*** The short video format with a relatable or aspirational figure may be conducive to a perceived intimacy that makes the career option seem more accessible to the viewer. It is possible that these types of messages and content can yield similar motivating impacts as the "trusted adult" reported by high school students. Additional research is needed to test whether the benefits of information delivered through personal connection can be replicated through video media to encourage future thinking, shifting one's narrative of career possibilities and leading adults to develop new career goals that the person previously did not have. These connections could be similar to how students view a personal connection and their influence.
- ***Students valued engagement with relatable, diverse messengers who shared similar life circumstances and experiences.*** Participating university students preferred advice from individuals they could identify with—such as current college students, young professionals, or mentors—rather than from adults perceived as disconnected from their realities. They need models of what they could be in the future - the role model needs to look like them. Pathway models help them think about the destination.
- ***Realistic and honest depictions of college.*** Participating university students expressed a desire for authentic portrayals of higher education, alluding to the takeaway that college is an "adulting" and learning process that comes with rewarding freedom and independence but also comes with responsibility, challenges, and learning hiccups. This is a period of growth in all ways in which circumstances are very different than in high school. Students wanted honest portrayals of college life that depict more of the day-to-day experience and acknowledge challenges and opportunities. For example, they appreciated hearing how college could be difficult but also rewarding, helping them prepare for and navigate potential ups and downs.

3. Creative Testing

Methodology

Based on the literature review and qualitative research findings, a core concept was validated for design and development through the project: (1) a main online platform serving as a hub for prospective students, hosting media materials and learning tools, and (2) engaging multimedia resources, including videos and interactive tools, which would live on the platform.

To inform the design of the platform and media, an online creative testing study was conducted in January 2025. The study's goal was to test seven key components of a proposed digital platform and its associated media to assess whether those components evoked the intended emotional response, resonated with the target audience's interests and values, and could drive action.

The seven tested components were the following:

- **Platform's Core/Key Message:** This component focused on testing messaging strategies to address core concerns like affordability, career value, and belonging.
- **Platform Messaging: Voice and Tone:** This component aimed to determine the most appealing and effective voice for the platform, balancing expertise with approachability.
- **Platform's Visual Design/Identity:** This component tested various visual elements and design concepts to ensure the platform appeared credible and engaging without being overly commercial.
- **Platform's Navigation:** This component focused on identifying the most user-friendly and effective navigation structure for potential students exploring their options.
- **Video Materials:** This component tested the effectiveness of video content, specifically focusing on length, authenticity, and visual elements.
- **Application Guide:** This component explored challenges students face during the application process and what tools and guidance would be most helpful.
- **Financial Tools:** This component focused on tools and information that could simplify financial aid, clarify costs, and demystify student loans.

The insights from this creative testing process are intended to inform the design and development of the final digital platform and media resources.

The study was conducted using four online focus groups, with a total of 17 participants, all of whom were Central Washington University students. See Table 3 for a detailed breakdown of the participants'

demographics. All participants were recruited through email outreach in partnership with Central Washington University.

Table 3. Participant Demographics

	Identifier	Participants
Pronouns	he/him	9
	she/her	6
	Other (they/any)	2
Year of Study	Freshman	3
	Sophomore	1
	Junior	6
	Senior	7
Adult Learner	Yes	3
	No	14
Initially wanted to go to college?	Yes	13
	Unsure	3
	No	1

Findings

The creative testing revealed several key themes that guided the development of the digital platform and media content. These findings, based on feedback from focus groups, underscored the importance of a user-centered approach, clear communication, and authentic representation.

The Importance of Financial Concerns

Affordability was consistently identified as the single biggest barrier for prospective students. This concern extends beyond tuition to hidden costs like application fees and housing deposits, which were described as gatekeepers that can deter students from applying. The following student reflected on the impact of financial concerns on their decision to attend college:

"Financial constraints are a big barrier... Not having enough money or having to take out loans makes people hesitate."

Additionally, some participants cited return on investment as a concern. The possibility of wasting time and money feels risky, and potential students want to feel confident that attending college will lead to a promising career and financial security. The following quotation illustrates one participant's doubts surrounding the value of attending college:

"Is it worth it? Do I even need a degree? Why put myself through that cost if I don't need to?"

The insights from the creative testing suggest making financial information exceptionally clear and upfront and providing tools that help users weigh costs and identify potential career outcomes. Emphasizing clear and direct financial information addresses the need for digestible information, which one student noted:

"Most college websites are a mess when you're trying to find financial aid info, and when you do, it's just boring lists of fees that don't explain anything. The more I know about where my money is going, the more likely I am to spend it."

Authenticity and Belonging

Some participants expressed a preference for honest, authentic messaging over generic marketing language. They want to hear from relatable messengers who have real-life experiences, which can be incorporated through student blogs, testimonials, and video diaries. These first-hand narratives make the experience feel trustworthy and personal. One student articulated their need for honest, relatable communication:

"If I was looking at this, I'd want to know what it's actually like, not just a school saying 'We're great'."

Using approachable messengers can also help address concerns pertaining to belonging and social factors. The social environment of a college or university is an important factor for prospective students, who often consider the location, representation, friendships, and community during their school selection process. When assessing a prospective university or college, they also take class sizes, teaching styles, and accessibility under consideration. In particular, first generation college students can feel isolated during the transition with college due to limited at-home support. Students want to feel like they belong at the school they are attending, as reflected upon by the following student:

"It's hard to picture myself there if I don't know anyone or feel like I fit in."

Relatable and approachable messengers can help students imagine themselves at a higher education institution, placing themselves in the shoes of someone who is already attending the school.

Empowering, Not Pressuring

Participants want guidance and resources, but they also want to feel in control of their decisions. A supportive and encouraging tone, avoiding language that is either overly corporate or overly casual, addresses these needs. As one participant noted,

"It should feel like someone is talking to me, not at me. Like they get what I'm going through."

This approach respects student agency and builds confidence in their choices. Similarly, students may feel more confident relying on a website that conveys professionalism through an informative and structured tone. A couple of participants reflected on how the ideal tone should strike a balance between approachability and expertise, and the need for tone changes between the different platforms they are obtaining information from:

"If you make it too formal, students might feel like they don't belong. But if you make it too casual, it feels like you don't know what you're talking about. It has to strike a balance."

"On a website, I'd want it to be professional. On social media, a friendly, engaging tone makes more sense."

The research also found that many students no longer view a traditional four-year degree as the only path to a fulfilling life. With this perspective in mind, it is important for messaging to validate and support alternative education options, such as trade schools or certificate programs. Another way to uplift various routes to success includes integrating tools that help students map out different career pathways based

on their goals, ensuring they feel they have real choices. As one student noted, success can take many different forms:

"Some students feel pressure to follow a 'traditional' path, but everyone's version of success is different."

The Importance of Structured, Flexible Navigation

In terms of layout, some participants cited cleanliness and structure as essential for legitimacy and ease of use. These layout preferences include breaking down content into distinct categories like "admissions," "financial aid," and "student life." One participant specifically reflected on the need for quick access to information on key topics:

"If I click something, it should go straight to it. I don't like having to search around for information, it should be right there."

Some participants also noted a desire for a platform that incorporates a step-by-step approach to guide users through complex processes, while also allowing for free exploration. As one participant noted, this helps minimize the need to engage in trial-and-error with the platform:

"If you just give me everything at once, I won't know what to do first. A clear path helps."

As for additional guidance, interactive elements like chatbots and live support can provide real-time, personalized help. This need for real-time assistance within the website was highlighted in the following quotation:

"Having conversations on a site, even if it's AI, helps me learn better and keeps me engaged."

Effective Video and Visual Content

The creative testing revealed a preference for short (1-3 minutes), topic-specific videos featuring diverse and authentic student experiences. Some students valued guided virtual tours, citing self-guided tours as confusing. Additionally, participants reflected on the importance of being able to hone in on key details when sharing video clips with others:

"It's nice when you can share just one part of a video instead of the whole thing."

Visual design was also a key theme, with participants preferring a balance between professionalism and visual appeal. Some participants favored cool tones and a modern, readable typography for building trust and credibility, with one participant stating,

"Certain colors just make things look more official. Dark blues and deep reds feel professional, while too much bright color looks childish."

Demand for Tools and Support

The research identified a strong need for practical tools that simplify the application and financial aid processes. Some students highlighted the overwhelming nature of tasks like writing personal essays, getting letters of recommendation, and navigating FAFSA. Additionally, some participants requested career pathway exploration tools that would allow them to investigate alternative education pathways beyond four-year degrees and detailed routes for workforce entry. Some participants also emphasized the need for resources specifically for parents, who often lack the knowledge to help their children navigate the process, with one student sharing,

"My parents didn't know how to help me. ... It was expected that they would be able to figure it out, but there were no resources for them."

Recommendations

Based on the feedback gathered from creative testing focus groups, the following recommendations guided the design of the digital platform and its associated media. These insights highlight the importance of a user-centered approach, authentic messaging, and providing practical, empowering tools:

- ***Be direct and honest about financial details.*** The platform should provide exceptionally clear and upfront financial information, offering tools to help users weigh costs and identify potential career outcomes and return on investment.
- ***Use authentic, relatable messengers.*** Participants expressed a preference for honest, authentic messaging from relatable individuals with real-life experiences. These first-hand narratives, incorporated through student blogs, testimonials, and video diaries, help to build trust and make the experience feel personal.
- ***Create a supportive and empowering tone.*** The ideal tone should strike a balance between approachability and expertise, with the tone changing based on the platform.
- ***Validate diverse pathways to success.*** Messaging should validate and support alternative education options like trade schools and certificate programs. Integrating tools that help students map out different career pathways based on their goals ensures they feel they have real choices.
- ***Structure navigation logically and flexibly.*** Ensure a clean and structured layout with distinct categories, which will bolster legitimacy and ease of use. Include a step-by-step approach for complex processes while still allowing for free exploration.
- ***Utilize interactive tools for real-time support.*** Interactive elements like chatbots and live support can provide real-time, personalized help, which participants noted would help them engage with the platform.
- ***Optimize video content for accessibility and impact.*** Include short (1-3 minutes), topic-specific videos featuring diverse and authentic student experiences. Users should have the ability to share specific parts of a video rather than the whole clip.
- ***Balance professional design with visual appeal.*** Implement cool tones and modern, readable typography to build trust and credibility.
- ***Provide practical tools for complex tasks.*** The research identified a strong need for practical tools that simplify overwhelming tasks such as the application and financial aid processes. Participants also requested career pathway exploration tools for alternative education options and detailed routes for workforce entry.

- *Offer dedicated resources for parents.* Parents play a prominent role in students' decisions about postsecondary education but often lack the knowledge to help their children navigate the process. The platform should include resources specifically for them.

4. Usability Testing

Methodology

The qualitative research and creative testing informed preliminary designs, which were validated prior to full-scale development through a two-phase usability testing approach. The aim of the usability testing stage was to evaluate how effective and intuitive the platform prototype was, identify any missing elements, and assess how users responded to the preliminary design.

Phase One: Moderated Interviews

Phase One involved live, moderated interviews with six students from Central Washington University. Each session was approximately 45 minutes and was held remotely via Google Meet. Participants were asked to complete a series of guided tasks while verbalizing their thoughts, which provided rich qualitative data on their thought processes, struggles, and general impressions. See Box 2 for the interview prompts and questions used in this phase.

While a user testing platform, Useberry, was used to capture behavioral metrics such as clicks and session times, the direct qualitative insights gathered during these live sessions were the primary focus. Based on the findings from this phase, minor adjustments were made to the prototype’s design, specifically addressing issues with labeling, scrolling, and navigation.

Box 2. Usability Testing Phase One Interview Prompts and Questions

QUESTIONS FOR PHASE ONE USABILITY TESTING PARTICIPANTS
INTRODUCTION
<i>Please share your name, what year you’re currently in, what you’re studying, and what you were doing before enrolling in college.</i>
TRANSITION
<i>Now we will present a prototype of the digital platform we are currently designing and we will ask you to complete simple tasks and ask some follow-up questions. As you complete the task, please walk us through your thought process and highlight any comments or reflections you have.</i>
SECTION 1: GENERAL NAVIGATION & FIRST IMPRESSIONS

You've just discovered this platform. Where would you go first? (First-click test: observe where users naturally go.)

- *Follow-up question: Was the information you found helpful?*
- *Follow-up question: What else would you like or did you expect to see on this page?*

Where would you go if you are looking for help or support?

- *Follow-up question: What would have helped you find it faster?*

Where would you click if you are looking for resources to help your parents better understand and feel more comfortable with your decision to attend college?

SECTION 2: COLLEGE EXPLORATION & CAREER PATHS

Where would you click if you are considering different college options, and would like to learn more about CWU?

- *Follow-up question: Was it easy to find the college-related details?*

Where would you go if you are looking for a financial calculator specific to CWU?

- *Follow-up question: Was the calculator easy to find?*

SECTION 3: FUNDING

Where would you go if you want to explore options on how to afford college and want to learn about scholarships.

- *Follow-up question: Was it clear where to find scholarship opportunities?*

You want to see statistics about the job market.

- *Follow-up question: Were the statistics presented in an easy-to-understand way?*

Where would you go if you're searching for a step-by-step guide on applying for aid, and would like to know Step 1?

- *Follow-up question: Would a visual timeline or checklist improve clarity?*
- *Follow-up question: Is there another way you would prefer to view this process? Is there anything missing?*
- *Follow-up question: Did you expect any additional guidance?*

SECTION 4: STUDENT STORIES

Where would you click if you're looking for success stories from students like you?

- *Follow-up question: Would additional filtering options (by background, major, etc.) be helpful?*

Where would you go if you are reading Martina's story and you're interested in learning more about how she navigated finances?

- *Follow-up question: Was it easy to locate personal finance stories?*

Martina has helpful tips and tricks, go see what tip #5 is and click it.

- *Follow-up question: Did you expect any additional guidance?*

Where would you click if you want to share Martina's story with a friend?

- *Follow-up question: Would you share a page like this with friends or family going through a similar experience/considering college?*
- *Follow-up question: Would you share any of the other pages - if you had buttons on other pages?*

Phase Two: Asynchronous Survey

Based on the feedback received through the interviews in the first phase of the usability testing, design changes and adjustments to some usability testing tasks were implemented. The second phase, an asynchronous unmoderated session, was designed to validate these design changes. This involved a 15-minute online survey distributed to high school students in Washington with the support of the Washington Student Achievement Council (WSAC). A total of 65 participants engaged with the survey, with 28 completing all tasks. The survey was implemented through the Userberry platform and available in both English and Spanish. Participants completed a series of self-guided tasks that simulated typical platform usage. See Box 3 for the survey instrument used.

Data collected during this phase included completion rate, total session time, first-click time, and navigational clarity, providing quantitative and qualitative feedback on the prototype's functionality. This approach allowed for the confirmation of patterns observed in the first phase, validated feedback based on the implemented changes, and offered insights into how the prototype of the platform performed across a more diverse demographic of potential users. See Table 4 for a demographic breakdown of participants in this phase.

Box 3. Usability Testing Phase Two Survey Instrument

INSTRUMENT FOR PHASE TWO USABILITY TESTING PARTICIPANTS

DEMOGRAPHIC QUESTIONS

Please select your age group:

- a) *Under 18*
- b) *18-24*
- c) *25-34*
- d) *35-44*
- e) *45+*

Please select the gender that applies best to you:

- a) Male
- b) Female
- c) Non-binary
- d) Prefer not to say
- e) Other

Which of these best describes you:

- a) Current High School Student
- b) High School Graduate
- c) Current College Student
- d) Adult Learner
- e) Other

What type of post high school education are you most interested in?

- a) 4-year college/university
- b) 2-year community college
- c) Trade school
- d) Apprenticeship program
- e) Other

Are you currently considering post high school education?

- a) Yes
- b) No
- c) Unsure

Have you previously applied for financial aid or scholarships?

- a) Yes
- b) No
- c) Not yet, but I plan to

USABILITY TESTING QUESTIONS

Task 1: You've just discovered this platform. Where would you click first?

- *Follow-up: What was the reason for that selection?*

Task 2: Where would you go if you were looking for help on the platform?

- *Follow-up: Can you rank how easy it was to find support/help?*
 - a) 0 - Very difficult
 - b) 1
 - c) 2
 - d) 3
 - e) 4
 - f) 5 - Very easy

Task 3: Where would you click if you were looking for resources to help your parents better understand your decision to attend college?

- *Follow-up: Can you rank how easy it was to find the page for families and parents?*
 - a) 0 - Very difficult
 - b) 1
 - c) 2
 - d) 3
 - e) 4
 - f) 5 - Very easy

Task 4: Where would you go if you were considering different colleges, and would like to learn more about Central Washington University (CWU)?

- *Follow-up: Did you find it easy to find the college-related details page?*
 - a) Yes
 - b) Somewhat
 - c) No

Task 5: On this page, where would you go if you were looking for CWU's financial calculator?

- *Follow-up: Can you rank how easy it is to find the CWU financial calculator?*
 - a) 0 - Very difficult
 - b) 1
 - c) 2
 - d) 3
 - e) 4
 - f) 5 - Very easy

Task 6: Where would you go if you wanted to explore options on how to afford college and learn about scholarships?

- *Follow-up: Was it easy to find the scholarship section?*
 - a) Yes
 - b) Somewhat
 - c) No

Task 7: Where would you go if you were searching for a step-by-step guide on applying for financial aid, and would like to start with Step 1?

- *Follow-up: Did the step-by-step visual pathway work for you? Is there another visual to learn about this process, that would work better? Does anything feel like it is missing from the current design?*

Task 8: Where would you click if you were looking for success stories from students like you?

- *Follow-up: N/A*

Task 9: Where would you go if you were reading Martina's story, and were interested in learning more about how she navigated finances?

- Follow-up: The floating words by Martina's photo were clickable. Can you rank how clear that was to you?

- a) 0 - Not clear
- b) 1
- c) 2
- d) 3
- e) 4
- f) 5 - Very clear

Task 10: Where would you click if you wanted to share Martina's story with a friend?

- Follow-up: Would you share a platform like this one with friends or family going through a similar experience/considering college?

- a) Yes
- b) No
- c) Not sure

Task 11: Martina has helpful tips & tricks on her page. Can you locate where Tip #5 is and click it?

- Follow-up: How clear was the navigation? Did you know to scroll through?

- g) 0 - Not clear
- h) 1
- i) 2
- j) 3
- k) 4
- l) 5 - Very clear

FINAL THOUGHTS

What did you like most about what you saw on the platform?

What could be improved? Is there anything else you would like to see?

Table 4. Phase Two - Key Characteristics of Survey Completers

Total Number of Students	Age		Interested in postsecondary education			Type of postsecondary education of interest				Previously applied to financial aid		
	<18	18-24	Yes	No	Unsure	4-year college/university	2-year community college	Apprenticeship	Other	Yes	No	Not yet, but I plan to
28	20	8	26	0	2	20	6	1	1	12	4	12

Findings

Most participants found the visual design of the platform prototype to be engaging, while identifying areas for improvement concerning navigation, terminology, and content discoverability.

User Engagement and Visual Appeal

The prototype's visual design was a strength, receiving positive feedback across both testing phases. Participants described the interface as clean, modern, and appealing, noting its vibrant and interactive nature as a welcome change from the overly formal feel of traditional educational websites. The following are three participants' reflections on what they appreciated about the visual design of the website:

"I really liked the colors of the website. It was very visually appealing. Some of the old websites that you use, like the AP testing board, they have college information, but it's kind of a boring website to look at." (P2)

"I loved the vibrancy, it made the platform visually pleasing." (S109)

"I really liked the rounded edges of the buttons and textboxes, the shapes and colors were fun and stylish. :)" (S82)

Additionally, the prototype's "Profiles" page received positive feedback in terms of clarity and visual engagement, which helped validate the design direction. Respondents also reflected positively upon the opportunity to see real-life examples of students successfully navigating postsecondary life. The following respondent spoke to their experience looking at the student profiles:

"I really liked [...] how they included experiences from real people in different situations. It felt very inclusive." (S110)

Overall, participants found the prototype of the platform to be a useful starting place for information gathering about college application.

Navigational and Terminology Challenges

In addition to positive perceptions of the visual design of the prototype, several participants noted that they found the navigation easy and straightforward:

"Very organized. Didn't have everything thrown at you at once. Everything is clearly labeled which is helpful as well." (S81)

"I liked how clear and easy it is to navigate the whole page. Looked very easy to find helpful information." (S29)

At the same time, both testing phases uncovered areas of navigational friction and confusion surrounding content. When landing on the prototype, some users expected additional clarity about the purpose of the site. One user noted:

"A mission statement/ introduction to the website could be included at the top to provide clarity about what the website's about." (S12)

Some users noted that helpful financial tools and information, such as the step-by-step guide to financial aid, were located in sections they found unexpected or insufficiently prominent within the site. Additionally, some respondents found it challenging to find scholarship-specific information among general financial aid information. For example, two participants reflected on finding specific information on scholarships and the step-by step guide to financial aid:

"The only thing that I was thinking about though was that I feel like the financial part of scholarships and all that and the fast steps should be more up above on the page I feel like. ... I feel like maybe sometimes someone will click on it and let's see that they're scrolling down and they're like, 'Oh, this is probably not it'." (P5)

"Maybe separate scholarships and financial aid? Some younger students don't know that they are in the same umbrella and would assume the site doesn't offer scholarship info, at first glance I didn't realize it did." (S82)

Some users suggested clarifying some terms used on the prototype of the platform. Acronyms like FAFSA were unclear to some users, and the term "Applications" was occasionally misinterpreted. For instance, testers suggested replacing the broader "Finances" term with the more explicit "Financial Aid" to improve clarity. Additionally, some users noted that interactive elements, such as clickable bubbles and links, would benefit from instructions such as "Click to learn more" to guide their actions. Several participants overlooked the "Help" icon (a question mark without text), confirming the need to increase explicit textual cues to clarify the intent of functionalities. A student noted:

"Took me a second because I was kind of looking for a specific help word there instead of a question mark. Normally a question mark I'm like trying to find something specific, like through a search engine." (P2)

Overall, the usability testing suggested that students, while highly familiar with digital tools and appreciative of clean visual design, also expect an experience that is more guided than initially envisioned. By calling for a combination of visual and explicit textual cues facilitating a clear understanding and efficient action, users provided key insights shaping the improvements to the prototype of the platform.

Value of Complementary User Behavior Analysis

In order to yield the insights discussed above, the two-phased approach provided a valuable comparative analysis of user behavior. The live, moderated sessions, with an average session duration of 15.3 minutes, allowed for direct observation of user pain points and provided the emotional context behind their actions, such as frustration. In contrast, the asynchronous sessions, with an average duration of 7.9 minutes, were effective for assessing whether the prototype of the platform was intuitive and if users could find what they were looking for quickly. Focusing more on completing tasks quickly rather than exploring the prototype of the platform in depth, asynchronous users rated navigation highly (4.18 out of 5). This suggests that users could generally find what they were looking for, even without the guidance and additional context offered during the live sessions.

An important finding from the unmoderated sessions was the high drop-off rate, with 54% of participants who started the feasibility survey failing to complete it. An analysis of the drop-off points revealed that a sharp increase occurred after tasks related to "Looking for Support" and "Family," indicating these early-to-mid-task areas may represent key friction points in the user journey. None of the 33 users who dropped off accessed the "Student Stories" or "Tips" sections, suggesting that issues with navigation and finding effective support resources for using the website prevented them from engaging with a broader range of the prototype's features.

Recommendations

The two-phased, complementary usability testing yielded useful insights into users' emotional experience and practical engagement with the prototype of the platform. Quantitative data from the asynchronous survey further corroborated users' engagement behaviors and pain points. Paired with the quantitative data, the qualitative insights from the in-depth moderated sessions provided further details on areas of improvement, particularly pertaining to navigation, discoverability, and terminology. Recommendation and actions taken are outlined below.

- **Review terminology and further break down information.** The use of acronyms like FAFSA and general terms such as "Applications" has been a point of confusion for some. To improve the user experience, making the platform's purpose clearer from the start and breaking up extensive information was recommended. A suggestion was to replace broad terms like "Finances" with more explicit language, such as "Financial Aid."
 - ◆ Sandbox's response: The "Applications" webpage was revised and replaced by an "Apply to college" dropdown menu item, from which users can navigate to more specific webpages, with details on partner colleges and tips and resources for applying to college. To help users orient themselves at the beginning of their user journey, we added a blended video and a more accessible about page to detail the purpose of the platform. A "Financial aid" dropdown menu item was developed leading to a "Finances overview," "Free Application for Federal Student Aid (FAFSA)," "Scholarships and grants," and "Loans." In the case of FAFSA and other acronyms, full concepts were articulated and easy access to definitions section for key terms used throughout the platform was added. These changes aim to clarify potentially unfamiliar terms and direct users to the specific resources they are seeking.
- **Strengthen navigational cues.** Some users struggled with interactive elements and, to a lesser extent, with navigation (only during testing interviews, not during asynchronous navigation). Suggestions for improvement included the addition of explicit visual cues to indicate scrolling options and combining both visual and textual cues in interactive areas such as bubbles and links. Adding navigation instructions such as "Click to learn more" was also recommended.
 - ◆ Sandbox's response: Clickable elements were highlighted with clear visual cues and text. The use of symbols was replaced by short-form text to increase clarity - for instance replacing the "?" symbol by "Help".
- **Enhance placement of features and content highly valued by users.** Some interactive tools and content areas, such as the step-by-step guide to financial aid and the site's About page, were

initially placed 'deeper' in the site to accommodate other foundational information. Users suggested more prominent placement of those components.

- ◆ Sandbox's response: The step-by-step guide was placed higher on the "Finances overview" page and the "About" page was made more prominent and easy to access. Information hierarchy trade-offs had to be made to accommodate those changes, including moving lower information about labour market returns and practical examples for budgeting included in the 'money diaries' concept for managing finances during college. This decision was made to address students' primary concern: knowing where to begin with finances before moving on to topics like managing money in college or understanding the return on their investment.

Conclusion

This report synthesizes the multi-faceted research conducted to support the development of the @CollegeToolkit, including a literature review, qualitative research, creative and usability testing. While financial concerns – especially affordability and debt – are major barriers, the research highlights the importance of personal and communal achievement as motivators for pursuing postsecondary education, particularly among underrepresented groups. The research also suggests that educators and counselors may underestimate interest in postsecondary education and unintentionally create barriers through bias or a lack of ability to effectively support students through complex processes. It further suggests that diverse support networks and credible messengers with shared experiences are key to engaging students and that video can be effective if authentic and paired with in-person contact. The research also highlighted the importance of visual design alongside explicit text and instructions, highlighting the importance of speedy access to immediately understandable information among students. The research thus calls for carefully crafted, clear, empathetic communication, practical tools for students and parents, and realistic portrayals of college life, informing design principles that emphasize accessible financial information, authentic messaging, and flexible, supportive navigation.

This research helped ground the design of the @CollegeToolkit. It also generated tangible ideas for user-focused implementation of the tool at the high school level, potential scaling to other institutions to reflect a greater diversity of programs and experiences, and potential deepening of the proposed tools to respond to students' interests in understanding various study and career pathways and in receiving personalized support. Beyond the @CollegeToolkit, this work can provide pointers for research and policy to support students' ability to consider, pursue and complete postsecondary education.

Works Cited

- Acevedo-Gil, N. (2017). *College-conocimiento: Toward an interdisciplinary college choice framework for Latinx students*. Routledge Taylor & Francis Group.
- Acevedo-Gil, N. (2019). College-conocimiento: Toward an interdisciplinary college choice framework for Latinx students. *Race Ethnicity and Education*, 22(4), 455-471.
- Bettinger, E., Long, B.T., Oreopoulos, P., & Sanbonmatsu, L. (2012). The role of application assistance and information in college decisions: Results from the H&R Block FAFSA experiment. *Quarterly Journal of Economics*, 127(3): 1205–1242.
- Brame, C. (2016). *Effective Educational Videos: Principles and Guidelines for Maximizing Student Learning from Video Content*. NIH National Library of Medicine.
- Castleman, B. (2021). *Why Aren't Text Message Interventions Designed to Boost College Success Working at Scale?* Behavioral Scientist.
- Castleman, B., & Meyer, K. (2020). *Can Text Message Nudges Improve Academic Outcomes in College? Evidence from a West Virginia Initiative*. John Hopkins University Press.
- Castleman, B. L., & Page, L. C. (2013). The not-so-lazy days of summer: Experimental interventions to increase college entry among low-income high school graduates. *New Directions for Youth Development*.
- Dearnell, A. (2023). *Breathe New Life Into Corporate Videos*. Forbes.
- Destin, M. (2021). *Psychological Perspectives on Postsecondary Education Returns*. Northwestern University.
- Eccles, J. S., & Wigfield, A. (2020). From expectancy-value theory to situated expectancy-value theory: A developmental, social cognitive, and sociocultural perspective on motivation. *Contemporary Educational Psychology*. <https://doi.org/10.1016/j.cedpsych.2020.101859>
- Education Strategy Group. (2021). *The Adult-Ready Playbook: A Comprehensive Policy and Practice Guide to Improve Outcomes for Post-traditional Learners*. https://edstrategy.org/wp-content/uploads/2021/08/ESG_Adult_Ready_Playbook_Overview_FINAL.pdf.
- Fyfield, M., Henderson, M., & Phillips, M. (2022). Improving instructional video design: A systematic review. *Australasian Journal of Educational Technology*, 38(3), 155–183. <https://doi.org/10.14742/ajet.7296>

- Gale, T., Erisman, W., & Cunningham, A. (2022). *Persevering to Completion: Understanding the Experiences of Adults Who Successfully Returned to College*. Lumina Foundation.
- Gardner, A. C., Maietta, H. N., Gardner, P. D., & Perkins, N. (2021). Postsecondary Adult Learner Motivation: An Analysis of Credentialing Patterns and Decision Making Within Higher Education Programs. *Adult Learning* 33(1), 15–31.
- Golston, A. (2022, September 28). Understanding why a growing Number of High School Graduates are Choosing Not to Go to College... And What We Can Do About It. *Gates Foundation*.
- Herd, P., & Moynihan, D. P. (2018). *Administrative Burden: Policymaking by Other Means*. Russell Sage Foundation.
- Hernandez, R., Covarrubias, R., Radoff, S., Moya, E., & Mora, A. J. (2024). An Anti-Deficit Investigation of Resilience Among University Students with Adverse Experiences. *Journal of College Student Retention: Research, Theory & Practice*, 26(3), 653-676.
- Hernandez, L., & Naccarato, T. (2010). Scholarships and supports available to foster care alumni: A study of 12 programs across the US. *Children and Youth Services Review*, 32, 758-766.
- Hofer, A.-R., Zhivkovikj, A., & Smyth, R. (2020). *The role of labour market information in guiding educational and occupational choices*. OECD.
- Holland, M. (2020). *Framing the Search: How First-Generation Students Evaluate Colleges*. The Journal of Higher Education.
- Hoxby, C., & Turner, S. (2013) *Expanding college opportunities for high-achieving, low income students*. (Discussion Paper No. 12-014). Palo Alto, CA: Stanford Institute for Economic Policy Research.
- Huerta, A., McDonough, P., & Allen, W. (2018). "You can go to college": Employing a Developmental Perspective to Examine How Young Men of Color Construct a College-Going Identity. The Urban Review.
- Kenney, S., Richards, T.-A., Taylor, C., & Taylor, R. (2021). *Adult Enrollment Design Guide Strategies to Help Adults (re)Enroll in College*. ideas42.
- Kwakye, I., & Deane, K. (2022). *State Strategies for Building Equitable Access to and Success in Postsecondary Education*. Washington Student Achievement Council.
- Kwakye, I., & Lacalli, E. (2023). *A New Approach to Increasing Awareness of Postsecondary Opportunities and Financial Aid in Washington*. Washington Student Achievement Council.

- Kwakye, I., Moore, A., & Pasion, S. (2019). *From the Frontline: Principals' views on engaging students*. Washington Student Achievement Council.
- Lee, H.R., Rutherford, T., Hanselman, P. *et al.* Role Models in Action Through YouTube Videos for Engineering Community College Students. *Res High Educ* 65, 1007–1039 (2024).
<https://doi.org/10.1007/s11162-023-09772-5>
- Luedke, C. L., & Corral, D. (2024). "The Least I Could Do is Get That Four-Year Degree That they Sacrifice so Much for" Undocumented Latina/o Families and the College Navigation Process. *The Journal of Higher Education*, 95(2), 149-171.
- Luqueno, L. P. (2024). The Role of Family Histories in Students of Immigrant Origin's Aspirations and College Decision-making Process. In *Supporting College Students of Immigrant Origin: New Insights from Research, Policy, and Practice* (pp. 64-86). Cambridge University Press.
- Mayer, R., & Moreno, R. (2003). Nine Ways to Reduce Cognitive Load in Multimedia Learning. *APA PsycNet*.
- Mwangi, C. (2015). (Re)Examining the role of family and community in college. *The Review of Higher Education*.
- National Center for Education Statistics. (2024). *IPEDS Trend Generator* [Data visualization tool]. U.S. Department of Education, Institute of Education Sciences. Retrieved from
<https://nces.ed.gov/ipeds/trendgenerator/app/answer/2/8>
- Resendez, J. (2022). *Latinx Pandemic Melt: A Phenomenological Study of Summer Melt during the COVID-19 Pandemic*.
- Rosenzweig, E.Q., Harackiewicz, J. M., Priniski, S. J., Hecht, C. A., Canning, E. A., Tibbetts, Y., & Hyde, J. S. (2019). Choose your own intervention: Using choice to enhance the effectiveness of a utility-value intervention. *Motivation Science*, 5(3), 269–276. <https://doi.org/10.1037/mot0000113>
- Shapiro, N. (2022, November 30). Gates Foundation commits \$75 million to help WA kids get to college. *The Seattle Times*.
- Stevens, N.M., Fryberg, S.A., Markus, H.R. & Nelson, J.E. (2012). Unseen disadvantage: How American universities' focus on independence undermines the academic performance of first-generation college students. *Journal of Personality and Social Psychology*, 102(6), 1178-1197.
- Stevens, N.M, Townsend, S.S.M & Dittmann, A.G. (2019) Social-class disparities in higher-education and professional workplaces: the role of cultural mismatch. *Current Directions in Psychological Science*, 28(1), 67-73.

- Thiem, K. C., & Dasgupta, N. (2022). From Precollege to Career: Barriers Facing Historically Marginalized Students and Evidence-Based Solutions. *Social Issues and Policy Review* 16(1), 212-251.
- Van Deursen, A., van Dijk, J., & Peters, O. (2011). Rethinking Internet skills: The contribution of gender, age, education, Internet experience, and hours online to medium- and content-related Internet skills. *Poetics*, Vol. 39/2, pp. 125-144.
- Van Deursen, A., & van Diepen, S. (2013). Information and strategic Internet skills of secondary students: A performance test. *Computers and Education*, Vol. 63, pp. 218-226.
- Wanti, M., Wesselink, R., & Brok, P. (2022). *Determining factors of access and equity in higher education: A systematic review*. Sage Journals.