

Expanding the Equity Conversation for Pathways to College

A Literature Review of College Access and Readiness Research

2014–2021

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Glossary

Before discussing critical approaches to college access and college readiness, it is important to provide a shared understanding of the key concepts offered in this review. Below are key definitions, starting with our understanding of the constructs of college access and college readiness. Additionally, these constructs bring about conversations regarding non-cognitive factors. Throughout their education, students of color have the unique experience of coping with inequities that may hinder their competence and confidence in the school context. These inequities are under the guise of a White-dominant culture. Thus, the glossary provides definitions of constructs related to Whiteness and White-dominant culture. Negative identity formation, along with other inadequate school experiences, warrant the need for practices that are both anti-racist, equitable and culturally relevant. Thus, we provide information regarding the aforementioned constructs. Finally, when discussing culture, it is essential to have an understanding of different terminology related to various groups of people. Thus, we provide definitions for two common groups involved in equity work: BIPOC and Latinx.

College Access: Efforts to promote K-12 students' participation in postsecondary education (efforts often intertwine with college readiness efforts; Pitcher & Shahjahan, 2017).

College Readiness: The degree to which previous experiences have prepared a student for success in postsecondary education (Conley, 2008).

Despite critiques in the literature (see David Conley section), researchers agree that the most common factors that influence students' ability to be college ready are the following (Baker, Clay, & Gratama, 2005):

- College Awareness: Providing students with information regarding college attendance, such as admission requirements and goal-setting for a career and education. Awareness should begin in elementary and middle school. For example, teachers of elementary-aged students can foster college-going aspirations by inviting speakers during a career day.
- College Eligibility: Completing all courses required for college admissions. It is important for schools to believe that students can achieve at the college level. Doing so encourages staff to reassess their curriculum and provide students with more rigorous curricula commensurate with college-level work.
- College Preparation: Having the skills needed to persist and succeed in college. College preparation encourages schools to prepare students to deeply analyze their work in order to incorporate this skill in postsecondary education.

Non-Cognitive: The personal attributes that can influence a student's success in college. This includes characteristics like academic perseverance, academic self-efficacy, and interpersonal skills (Bowman et al., 2018). It is important for educators to focus on skills that can help students succeed in college while also taking into consideration the non-cognitive attributes that they already possess and building upon them.

Whiteness & White-dominant Culture: White-dominant culture can be referred to as a sociopolitical environment that favors Whiteness (i.e., thoughts, beliefs, and experiences) (Liu et al., 2019). The education system is made up of White-dominant culture (Lander, 2014); thus, students from non-dominant (non-White) backgrounds often have negative experiences within the school context because their thoughts, beliefs, and experiences may differ from that of the dominant culture (Lander, 2014). Whiteness can expand to the core of curriculum and pedagogy in a way that is invisible unless examining the culture of a school through a critical lens (Matias et al., 2016). This is why Whiteness is harmful and, yet, continues to exist—it can be embedded into policy and culture without being questioned because it can be seen as the norm. Systems, customs, and practices that are considered the norm are actually Whiteness that is invisible to the non-critical eye. Thus, BIPOC and low-income students navigating a school culture includes them having to learn and perform from a Eurocentric curriculum which is not designed to be tailored to them.

White Supremacy: The notion in which White people should control power and resources (Liu, 2017). White supremacy has a longstanding history of preventing children of color from receiving adequate opportunities and academic experiences (Picower & Mayorga, 2015). This is because the policies, procedures, and practices used in the education system are constructed to only advantage White people (Lander, 2014). Thus, students of color receive inadequate schooling because it is not designed to meet their needs. White supremacy is so ingrained into education policy that arguments for racial equity have been met with criticism. Thus, students of color living in a White-dominant culture and under White supremacist views are susceptible to inadequate school experiences as compared to their White peers.

Identity: Who people (in this case, students) believe they are and the qualities they possess (Spencer, 2018). Inadequate school experiences can influence students' identity formation. For example, navigating White-dominant school cultures can lead to students feeling as though they are unwanted and not adequate students (Brooms, 2019) and, subsequently, should not pursue postsecondary education.

Anti-racist Education: Education practices and ideologies that are aware of and work to counteract racism (Lynch et al., 2017). Anti-racist education works by challenging and addressing racism. It does so by increasing students' sociopolitical consciousness (i.e., the ability to critically examine the social and political forces influencing a society as well as one's status in it; Seider et al., 2018). Sociopolitical consciousness in students of color has many advantages, including an increase in resilience and academic engagement (Seider et al., 2018).

Equitable School Practices: Practices that ensure that students are receiving equal outcomes. It differs from equality in that equality ensures that students are given the same treatment (Stone, 2019). Equity ensures that students of color—who have the unique experience of navigating a White-dominant school culture—have the support they need to succeed academically. .

Critical Consciousness: The ability to critique social inequities and the motivation to take action to address social inequities (Friere, 1973). Critical consciousness allows students of color to (1) form relationships with students who are like-minded and can support them, (2) achieve despite stereotype threat, and (3) prepare themselves for the microaggressions and other harmful interactions that they may experience as ethnic minorities (Kolluri & Tierney, 2020).

Culturally Responsive Practices: Practices that utilize the cultural heritage and context of both students and educators (Milner, 2016). This can look like a number of things (see Practices section), including incorporating children’s lived experiences into word problems or designing classroom environments to be familiar to different students. Culturally relevant pedagogy, as illustrated by Gloria Ladson-Billings (1995), also includes the development of critical consciousness in students.

Sociocultural Perspective: Sociocultural perspective exists to understand individuals within larger social, cultural, and historical contexts (Eun, 2016). Sociocultural perspectives take into account that the culture of a school may be unfamiliar to some students. That, combined with social influences that serve to demean their existence, can make for an unfulfilling experience for students of color.

When discussing culture, it is essential to have an understanding of different terminology.

BIPOC: A relatively newer acronym to refer to Black, Indigenous, and people of color. While research has not been conducted to explicitly examine opinions on the acronym, several news articles have provided information regarding its history and critiques from the general public (Garcia, 2020).

History: The term BIPOC came into fruition following critiques of the term POC or people of color. In particular, critics believed that the term POC was too broad, particularly when discussing matters for specific groups of people. POC face varying types of discrimination and racism.

Critiques: Similar to POC, BIPOC can prove to de-emphasize the struggles of one particular ethnic group. It is suggested, when referring to one particular group of people, to avoid using umbrella terms such as BIPOC. However, when referring to a collective group of people who are non-White, it is okay to refer to them as such.

Latinx: Term used to refer to both women and men of Latin American origin or descent.

History: Initially, the term Latino came under fire once modern feminism examined the non-inclusive nature of the term. Initial replacements for the term included Latino/a and other such terms that provided for more inclusion. However, more recent gender-fluid activists have tried to push beyond the binary nature of such terms. Thus, the term Latinx was created to become inclusive of all genders and move away from binarism (Garcia, 2020).

Critiques: While a noble change, the term has received criticism, primarily from native Spanish-speaking populations. This is due to the fact that Spanish is a gendered language, and changing terms to be gender-fluid essentially attacks the entire language and, subsequently, the culture (Garcia, 2020).

Executive Summary

College access and readiness for marginalized students, including Black, Indigenous, and people of color (BIPOC), is vital. An increasing number of jobs require postsecondary education, but some BIPOC students, particularly Black, Latinx, and Indigenous students, are not graduating at the same rates as other students (Carnevale, 2016; NCES 2019). Additionally, a college education is connected to greater health and increased civic engagement (Ma et al., 2016). We explore the factors that impact college access and readiness for BIPOC and low-income populations. Specifically, the review focuses on research studies from 2014-2021 that focused on answering two questions:

- 1) What are the systemic, structural, and programmatic barriers to college access and college readiness for BIPOC students?
- 2) What classroom and school cultures, and district practices, promote widespread college access and readiness for BIPOC students?

We center equity by including college access and readiness studies with BIPOC and marginalized youth; critical, anti-racist, asset-based perspectives; and non-academic indicators. Where there was a lack of literature, we discuss future directions for this work.

Four sections comprise the literature review. Key points for each section are listed below:

Section 1. Introduction, Methodology, and Theoretical Approaches

- Failure to examine the educational system using a racialized lens can lead to deficit thinking, which can negatively impact BIPOC students' prospects of becoming college ready.
- Critical Race Theory and Community Cultural Wealth Theory challenge inequitable outcomes for BIPOC students by centering their struggles as well as uplifting their own unique abilities.
- Too often, families of Black, Latinx, and other students of color are framed in deficit ways when discussing education (Valencia, 1997, Bertrand et al., 2018, Reynolds et al. 2015). Acknowledging the existence of social capital and using an asset-based lens like that of Yosso (2005) to explore community cultural wealth will highlight the ways the families and extended networks can benefit BIPOC students on their pathways to college.
- Utilizing a sociocultural, sociopolitical, and racialized lens (e.g., CRT, Community Cultural Wealth) will allow educators to better understand the challenges students of color face in obtaining the skills needed to become ready for college. Such challenges include access to academic resources and opportunities, stereotype threat, and others that can create barriers for marginalized students. Understanding these challenges and providing equitable solutions to combat them will ensure that children from marginalized backgrounds can pursue higher education and succeed in doing so.

Section 2.

Higher Education Context and Barriers to Equitable College Access and Readiness

Higher Education Context

- Latinx and Black students are not enrolling in and graduating from postsecondary education at the same rates as Asian and White students. Furthermore, BIPOC students are overrepresented in institutions with low graduation rates.

Postsecondary Pipeline

- Important considerations for postsecondary match and fit include: academic alignment for students, how minority-serving institutions have been mischaracterized, and how many BIPOC students live in areas with few college opportunities nearby. Fit criteria that considers student interests and preferences as well and financial aid availability is also essential.
- “Summer melt” — when students who plan to attend college do not enroll in the fall — happens at a higher rate in marginalized communities. Understanding the causes and potential solutions for summer melt among BIPOC and marginalized students is especially important.
- The impact of COVID-19 has disproportionately affected BIPOC and marginalized students.

Policies

- Many national policies exist to tackle educational inequities; however, progress has been stifled by the inability of current policies to explicitly address root problems.
- Looking at federal, state, and district policies can help to understand what may and may not work in other settings. Policies that can provide financial support and guidance to marginalized students can increase students’ postsecondary education goals.

Barriers to Equitable College Access and Readiness

- Several barriers do exist to prevent students of color and other marginalized students from accessing and being ready for college.
- Unique barriers to consider for BIPOC and marginalized student include insufficient student-teacher relationships, cultural stereotypes/racism, lack of financial support and essentializing students.
- Doing so can ensure that practices to pursue college and address these barriers do not utilize a one-size-fits-all approach.

Section 3: Practices that Support Equitable College Access and Readiness

Classroom-Level Practices

- Student-teacher relationships are essential. While the culturally responsive “warm demander” approach can be used for BIPOC and marginalized students, teachers’ race and correct implementation of the approach are important.
- Interventions within the classroom setting have been shown to raise awareness about college, as well as skills and interests that connect to college.
- Literacy instruction should be culturally responsive in order to increase engagement among students. Subsequently, instruction should challenge students to critique and problem-solve as these skills will help to increase their readiness for college.

School-Level Practices

- Several practices have been documented to increase college-readiness among students at different developmental periods. These practices utilized multiple stakeholders (e.g., parents, teachers, administrators, community members) and took individualized approaches. While building academic skills in students is important for college readiness, it is important to also focus on non-cognitive factors and critical consciousness. Simply having conversations with students about college can make a meaningful difference.
- Researchers still have work to do in regard to refining practices. Little evidence exists to examine college readiness in younger students despite research noting the importance of instilling college self-efficacy in them. Additionally, more research is needed to understand specific strategies for different races/ethnicities. Regardless, it will be important for educators to take individualized culturally responsive approaches to helping students gain access to college.
- There is limited literature connecting “Targeted Universalism” to college access and readiness. One school district that implemented targeted universalism had improved outcomes for Black students.
- Multi-tiered systems of support is another approach to having universal and targeted approaches for students. MTSS has been connected to college and career readiness frameworks, but there is limited empirical research on effectiveness.
- Simply encouraging students and providing them with positive messages about college and educational aspirations can motivate them to pursue higher education. However, it is important to note that positive messages must be coupled with explicit college application and financial aid support.
- Addressing attendance (e.g., home-school collaboration) and addressing academics (e.g., acculturation support) can ensure that refugee and immigrant students can academically succeed while also maintaining their cultural identity.

District/System-Wide Practices

- Asset bundles take a comprehensive approach toward understanding students' strengths and areas for improvement. Doing so can help to tailor intervention plans and, subsequently, get them on the right track for college preparation and readiness.
- University-school partnerships boast several advantages for both the university and school setting. Schools receive extra support in ensuring that students are aware of college and have support to help them navigate college applications.
- While data systems capture students' skills regarding college readiness, there should also be data collected to reflect students' experiences, including structural barriers they may be facing related to college readiness.

Section 4: Conclusion and Recommendations

We found articles demonstrating how college access and readiness theories and approaches that included racism, identity, sociopolitical development, and familial and community assets could better serve BIPOC and marginalized students. We reviewed articles with systemic, structural, and programmatic barriers to college access and college readiness that have implications for BIPOC and marginalized students, including ruptures in the postsecondary pipeline, college access, and readiness policies that are not advancing equity, and other barriers. Lastly, we found that college access and readiness practices at the classroom-level, school-level, and district/systemwide levels are working or show potential for use with BIPOC and marginalized communities. Main concluding points for the field from the literature review include:

Key Takeaways

Failure to examine the educational system using a racialized lens can lead to deficit thinking, which can negatively impact BIPOC and marginalized students' prospects of becoming college ready. Utilizing a sociocultural, sociopolitical, and racialized lens (e.g., CRT, Community Cultural Wealth) to examine identity, aspirations, and familial and communal assets for BIPOC and marginalized students will allow educators to better understand the challenges students of color face in obtaining the skills needed to become ready for college.

We recommend educators, policy makers, and researchers consider college access and readiness barriers and best practices for BIPOC and marginalized students that do not solely focus on academics and that are race-centered, critical, and asset-based.



Section 1. Introduction, Methodology, and Theoretical Approaches

Introduction

Since 2010, the U.S. economy has added 11.6 million jobs, and 99% of them have gone to those who have some college education (Carnevale et al., 2016). With the increased number of jobs requiring postsecondary degrees, a college education increases job opportunities (Carnevale et al., 2016). Additionally, a college education is connected to greater health and increased civic engagement (Ma et al., 2016). Unfortunately, Black, Indigenous, people of color (BIPOC), and low-income students do not have the same college attendance and graduation rates as White, Asian, and higher-income students (NCES, 2019). Without a college education, BIPOC and marginalized communities will not have equal employment opportunities.

This literature review presents a synthesis of studies that center equity in college access and readiness from a critical, anti-racist, and asset-based perspective. We selected literature that focuses on college access and college readiness systems rather than BIPOC individuals needing to expand and change. We identified the assets and resources that BIPOC youth and communities contribute to college access and college readiness. The literature review highlighted how factors, such as racism, can disrupt equitable aims to college access and college readiness for marginalized and BIPOC youth. Our goal is to advance approaches to equity, college access, and college readiness by lifting up studies that center marginalized

students such as those who are BIPOC and think critically about ways to support them with their college pathways.

Therefore, the literature review asked two questions: 1) What are the systemic, structural, and programmatic barriers to college access and college readiness? 2) What classroom and school cultures and district practices promote widespread college access and readiness?

There are four sections in the literature review. We begin by discussing the theoretical frameworks used for college access and readiness. This section starts by describing guiding theories that are race-centered and asset-based. Considerations toward the identity and aspirations of students of color and the assets that they and their communities bring are the focus of the next group of articles. The section ends by critiquing traditional approaches to college readiness and discussing ways to build on these approaches that center BIPOC and marginalized youth. The second section focuses on higher education and barriers to college access and readiness. It provides an overview of the current higher education context and potential ruptures in the postsecondary pipeline for BIPOC and marginalized youth. Next, there is a discussion on how equity-centered college access and readiness policies impact marginalized students. The section ends by exploring barriers faced by BIPOC youth, including calls for intersectional identities to advance the college access and readiness process. The third section describes classroom-level, school-level, and district-wide/system-level practices that support equity with marginalized students as it relates to college access and college readiness. Lastly, section four includes the conclusion and recommendations for the college access and readiness field.

Literature Review Methodology

We selected empirical and theoretical studies by searching for current (2014-2021) mostly peer reviewed journal articles connecting college access, college readiness, and equity. In addition, we included seminal articles for selected topics before 2014 in our synthesis. We had a total of 22 articles that we cited before 2014. These articles were chosen because they were authors that discussed a foundational concept such as Ladson-Billings (1995) and her definition of culturally relevant pedagogy or Yosso (2005) and her conception of community cultural wealth. Other seminal articles were those from topic areas where articles made a unique or significant contribution to our discussion on college access and readiness for BIPOC and marginalized students. These include articles such as Castro (2013) discussing racialized college readiness or Rogers and Terriquez (2013) presenting their findings on youth organizing and four-year college enrollment. For the entire literature review, we selected as many articles, as possible, that provided critical, anti-racist, and asset-based perspectives about college access, college readiness, and equity that included marginalized and BIPOC student populations. We used search terms to identify an initial set of articles to review. We then expanded on these articles with further research by using citations from articles we found as well as referring to our own library of articles. A total of 166 articles were used to create this literature review. After reviewing the literature and focusing on NTN's areas of interest, we organized articles into categories and synthesized key findings and future directions.

Theoretical Frameworks

We grounded this literature review in critical approaches to college access and college readiness, including Critical Race Theory (CRT) and Community Cultural Wealth (CCW). This section explores how CRT and CCW connect to how BIPOC youth think about college identities and aspirations, social and familial capital, and expand on traditional approaches to college readiness.

Guiding Theories

While several frameworks inform college access and readiness, many do not employ a racialized lens. Such failure to take a comprehensive look at the contextual factors that make up the educational system (e.g., policies, rigorous academic offerings, school climate, quality facilities) as it relates to college access and readiness leads to deficit thinking (Weber et al., 2018). Within a White-dominant school context, deficit thinking primarily affects BIPOC, emergent bilingual (i.e. ELL), and other vulnerable student populations by setting them up to meet standards that are not designed for them (Ford, 2014). For example, achievement for BIPOC students is centered on Whiteness, meaning that children of color often have to acquire skills, habits, and academic practices that align with their White peers' background in order to be successful. If they cannot gain these White-centered skills, they run the risk of being seen as not capable of achieving, despite their own unique strengths that they may possess. Such thinking can then lead to a number of outcomes, such as teachers not challenging students, students having lower academic confidence, and, of note, students not pursuing higher education. This warrants the need for utilizing theoretical approaches that note the disadvantages that racially and ethnically diverse students face within the school context.

Including the voices of young BIPOC people in defining college access and readiness frameworks is also essential. For example, Sullivan et al.(2020) spoke with college students about their ideas of what is needed to transition to college and sums up the following recommendations based on their answers about increasing college readiness: creating opportunities for teachers and students across institutions to talk, centering deep thinking and deep reading, focusing on big questions and ill-structured (e.g. questions that don't have only one answer) questions, and embracing culturally sustaining pedagogy. Flennaugh et al. (2017) had similar conversations where Black students shared counterstories about barriers to college and emphasized how the voice of students should inform college readiness reforms and discourse.

Critical Race Theory

Critical Race Theory in education (Ladson-Billings & Tate, 1995) is used to articulate that racism is embedded within the U.S. educational system and that racism affects BIPOC students' chances of being academically successful. Ladson-Billings and Tate argued that, similar to legal policies in the United States, education policies contribute to educational inequities among BIPOC students. They note three key facts that relate to inequities both in education and society as a whole:

- Race remains a significant factor in determining inequities. For example, middle-class African American students tend to academically “underperform” as compared to middle-class White students because race is a more powerful determinant of educational and social outcomes than class (Ladson-Billings & Tate, 1995).
- U.S. society is based on property rights. Those with better property are entitled to “better” schools.
- Examining both race and property rights through intersectionality helps us to understand social (as well as school/educational) inequities.

These key factors relate to college access and readiness in BIPOC students by examining how their inequitable educational experiences result in lack of preparedness for college applications and pursuing higher education. Oftentimes, students of color from low-income backgrounds attend schools that do not have as many resources as schools in more affluent neighborhoods. This is due to the fact that property taxes from neighboring homes go directly to school funding. When students live in poor neighborhoods, school funding is limited because they do not receive as much property tax. Thus, they receive fewer academic opportunities and are still compared to those that have been provided those opportunities when it comes time for college entry examinations (e.g., SAT). Essentially, property rights affect the quality of education and preparation for college one receives, which can then directly affect being college ready. BIPOC students in low-income areas must face both a lack of resources and a White-centered educational system on the road to higher education attainment. Even when students of color are from more affluent neighborhoods and can gain access to schools with an abundance of resources, they still face the struggles of navigating a White-dominant culture in which their own unique skills and cultural background are unfavored (Ladson-Billings & Tate, 1995).

CRT has also emerged as a central framework for taking an anti-deficit approach. Previously mentioned, deficit thinking is undergirded by racialized ideas such as solely attributing the performance of BIPOC students to lack of trying rather than examining the structural factors that impede success. Furthermore, deficit thinking also has racialized undertones of who can learn and who is worthy of attending college (Convertino & Graboski-Bauer, 2017). Deficit thinking, though a silent practice, can produce loud, noticeable results. For example, Black and Latinx males are often aware of the biases (e.g., what they can and cannot do) that educators have against them regarding their academic abilities, and they figure out how to navigate continuing to pursue their academic endeavors (e.g., college) despite the negative messages received (Warren et al., 2016). Patton et al. (2015) also apply a CRT lens to college access and admissions and discuss how to situate college access and readiness within the context of factors such as racism and racist institutional policies, which is often left out of the college access literature. Examples of college access barriers include police practices, racist counselors, lack of college outreach to students in certain schools, and few faculty and students of color on college campuses. Moreover, Acevedo-Gil (2017) proposes a college “conocimiento” choice framework that connects inequalities for Latinx students such as insufficient college guidance to their intersectional identities and suggests that CRT is also used for further studies. By employing a CRT lens to examine college access and readiness for BIPOC students, educators can begin to identify how unconscious bias, deficit thinking, as well as other features of the educational system hinder the academic success of BIPOC students

and, as such, they can begin to identify antiracist approaches to support BIPOC students' academic success. Additionally, CRT works to increase students' critical consciousness (i.e., the ability to critique social inequities and the motivation to take action to address social inequities), which can serve as a protective factor for BIPOC students.

Community Cultural Wealth

While noting the struggles of BIPOC students, it is important to examine their assets that they bring to the classroom and educational system. Social capital is a kind of capital that exists among social networks in families and communities. In education, social capital facilitates access to opportunity and provides the resources for activating these opportunities.

McDonough and Nuñez (2007) discuss Bourdieu's seminal definition of social capital — which has traditionally framed scholarship on educational inequality — as one where social networks resources are used for tangible and symbolic profit. They also point to Bourdieu's use of social capital in connection to reproducing social inequality. For education, his theory can view schools as sites that reproduce social inequality (McDonough and Nuñez, 2007). For example, educational disparities for BIPOC and marginalized youth are perpetuated by schools. Social capital is one way to navigate these disparities.

The theory of community cultural wealth (Yosso, 2005), substantially expands and reorients this conception of social capital. Drawing from CRT in education, Yosso (2005) describes Community Cultural Wealth Theory (CCW), which posits that communities of color possess unique cultural knowledge, skills, and abilities that often go unrecognized.

Yosso (2005) identifies six types of capital found among communities of color:

- Social
- Familial
- Navigational
- Aspirational
- Linguistic
- Resistant

Each of these forms of community cultural wealth informs young peoples' ability to develop and realize their college aspirations. Among the most crucial differences between community cultural wealth theory and Bourdieu's theory of cultural and social capital is that it is asset-based. It sees students of color and their families as rich in a variety of resources that will support them to navigate the higher education system. Furthermore, this model's greater specificity and detail make it a more powerful tool to analyze both the success of college-going students and the resources they bring to confront various obstacles.

Students of color often bring these skills and knowledge into the classroom; however, they often go unnoticed or unwanted. CCW theory aims to acknowledge their assets and argues that educators and school leaders use them within the classroom to deepen learning and achievement and affirm students of color. Drawing on the strengths of students of color can

diminish deficit thinking by ensuring that the skills, knowledge, and abilities of BIPOC students are reflected in curriculum and pedagogy. This can also help to ensure that BIPOC students feel efficacious within the academic context and believe that they can successfully pursue higher education (Yosso, 2005).

Using the lenses of CRT and CCW, we now turn to critiquing traditional frameworks for understanding college readiness, namely Conley's (2007) College Readiness Framework.

Critiques of Traditional Approaches to College Readiness

There are many college readiness frameworks that seek to examine skills and abilities needed for one to become college ready. David Conley's College Readiness Framework is prominent and widely used among educators and practitioners. His Framework suggests that success in college is dependent upon a student's possession of four critical skills (Conley, 2007). These skills include:

- **Key Cognitive Strategies:** The possession of foundational cognitive skills that enable students to obtain, manipulate, present, and retain information
- **Key Content Knowledge:** The possession of foundational knowledge in core academic subjects
- **Academic Behaviors:** The possession of self-monitoring, self-awareness, and other self-skills that promote academic success; and
- **Contextual Skills & Awareness:** The understanding of college systems and culture

Despite being widely used (Duncheon & Muñoz, 2019; Uy et al., 2019), Conley's College Readiness Framework has received several critiques concerning its limited skills-based approach. Although Conley's Framework identifies important skills related to college access and readiness, it fails to examine systematic barriers that may hinder marginalized students from obtaining readiness. Without considering how the sociocultural context impacts academic success, Conley's Framework risks looking at marginalized students and students of color from a deficit perspective.

Assimilation Needed. While the framework offers skills students can build in order to increase college readiness, it fails to take into consideration sociocultural and political factors that can influence these skills. For example, based on the four critical skills needed for college readiness, one would conclude that students of color must gain skills and knowledge that are in alignment with their affluent White peers (Majors, 2019); however, the pathway to doing so looks different. While White students have the advantage of learning these skills in a conducive school environment, students of color must learn these skills through a curriculum and instruction that does not engage them in a culturally responsive manner. Essentially, they would have to assimilate to the White dominant culture in order to succeed, rather than institutions appreciating and uplifting the skills and knowledge that BIPOC students already bring.

Focus on Standardized Testing. Castro (2013) notes that while Conley's framework recommends several areas to focus on for improving the readiness of students for college, it fails to take into account how entrenched educational inequality functions within school contexts. For example, Conley's work has focused on a skill development that can be assessed with standardized test scores. However, standardized test scores are problematic for marginalized students, as they were specifically normed using the cultural frames of White families and communities (Duncheon & Relles, 2019; Majors, 2019).

Disproportionate Resources. Disproportionate educational resources and opportunities are available to White affluent students as compared to their non-White and marginalized peers, such as limited AP course offerings and other opportunities for marginalized students to be competitive college applicants, further solidifying White students' dominance in college readiness (Klopfenstein, 2018; Majors, 2019). Conley's Framework does not account for this and, essentially, tells students that they lack the skills needed to be successful in college in a way that blames them for the lack of skill rather than the systems at play which hinder their abilities.

These critiques suggest that researchers, policymakers, and other stakeholders need to ask more of frameworks that are designed to improve students' college readiness. Fortunately, researchers have begun to recommend the consideration of additional factors that can enhance the work on college readiness.

- Critical Race Theory Utilization: Critical Race Theory (CRT) fills in racial gaps that the College Readiness Framework does not take into account. Examining college access and readiness through a CRT lens, allows educators and policymakers to trace how racism manifests within classrooms, school and even college readiness frameworks. Through a CRT lens, educators develop critical consciousness (i.e., the ability to critique social inequities, the motivation to take action to address social inequities, and the actual behavior of taking action) which gives them the skills to prepare students for college. If people are not aware of inequities and/or cannot critique them, the chances of perpetual inequality increases. Oftentimes, BIPOC students are exposed to people and situations that serve to oppress them. This is especially true on college campuses. Critical consciousness helps students to understand the world around them and achieve despite stereotype threat and microaggressions. Thus, accounting for critical consciousness in conversations of college readiness could provide meaningful information for students of color. Additionally, based on the significant amount of empirical support for increasing critical consciousness in students (Cadenas et al., 2020; Cadenas et al., 2021), it is suggested that college preparation activities should help to build students' critical consciousness (Monjaras-Gaytan et al., 2021), though empirical evidence for this is still limited.
- Identity Utilization: Schools not only teach students academic content, but also help students to form an idea of who they are in relation to others (Duncheon & Relles, 2019). To promote college going identities for BIPOC students' educators should:
 - Create environments that are similar to college in order to increase students' postsecondary aspirations and awareness (Corwin & Tierney, 2007; see Practices section).

- Include school staff that engage in behaviors, beliefs, and language that promote high achievement in students (see Warm Demander section). This will allow students to see themselves as students who are capable of engaging in challenging academic work and, thus, increase their college aspirations.
- Focus on building positive racial/ethnic identities among students of color (see Practices section).

Given these critiques, we next turn to a discussion of how CRT and CCW can offer more relevant approaches to understanding how identity, aspirations, and familial and community capital shape the college readiness experience of BIPOC students.

Identity and Aspirations

Limited research exists to examine identity in college access and readiness literature that considers the unique identities of BIPOC and marginalized students, even though it is an important aspect of youth development. Identity is a complex construct in which individuals figure out who they are in relation to others (Spencer, 2018). Identity is multifaceted, and includes constructs such as a person's race, gender, class, and other salient groupings that they possess; all of which influence their decision-making and self-efficacy (Brooms, 2019) on a daily basis. Thus, identity is an important construct to consider when promoting college readiness among BIPOC students.

How students view themselves in relation to school plays an important role in their achievement. For example, ample evidence supports the notion that students feeling efficacious in their work (i.e., I can do this) is associated with academic achievement (Olivier et al., 2019; Talsma et al., 2018). However, students' identity formation looks different based on their racial background. Because students of color have the added challenge of navigating White-dominant school cultures, they are at higher risk of developing negative student identities (e.g., I am not a good student; Brooms, 2019), which can subsequently impact their decision to pursue postsecondary education. Initial theories and frameworks on college access and readiness were developed without considering the role that racism plays in education.

Consider This: Conley's College Readiness theory articulates four dimensions that students must possess in order to be successful in college (e.g., key cognitive strategies, key content knowledge, academic behaviors, contextual and awareness skills). Garcia (2001) expanded upon this theory by adding in the notion that stakeholders (e.g., teachers, parents) supporting students in their readiness for college directly influences their readiness. While these factors and strategies serve as a starting point for understanding college readiness, students of color, specifically, have culturally-specific struggles that must be considered when determining whether they are able to enter a predominantly White university setting. In particular, students of color constantly face challenges that serve to demean their identities (e.g., microaggressions). Essentially, students of color negotiate complex identity processes while adjusting to the university setting (Hungerford-Kresser, 2012).

College readiness theories omit several factors that contribute to students' of color college-going identity construction. Such factors include the need to challenge the many negative narratives that are placed on students of color (e.g., becoming teenage-parents, dropping out of high school to seek employment) (Huerta et al, 2018). The need to challenge those narratives results in the belief that one must “be” someone and to be successful, whether it be in college or in the military. Additionally, military recruiters are notable in minority high schools and make promises of money, which can delay college for technical training (Huerta et al., 2018). When students of color are already feeling finicky regarding their college-going identity, the military serves as a viable solution. Additionally, the financial struggles that come with college can make the military more appealing (Huerta et al., 2018).

CRT and other critical frameworks help to promote positive identity in students of color. In particular, the Community Cultural Wealth theory promotes the inclusion of students of color' unique knowledge, skills and abilities in the school context. Often, students of color have to compare their skills to other students and schools that favor White ideology (Duncheon & Relles, 2019). Doing so can easily demote their academic efficacy. However, including their skills and abilities in the academic standards helps to level the playing field so that they may develop positive identities and feel better suited for postsecondary education.

While research remains sparse in relation to college identity and students of color, more literature exists to examine college aspirations among students of color. Findings from previous empirical articles indicate that several factors can influence Black and Latinx students' educational aspirations, including parental and family support. Among Black boys, in particular, aspects such as their quality of life and receiving postsecondary education messages from people closest to them increase their educational aspirations (Brooms & Davis, 2017). For Latinx students, these barriers include lack of resources, negative peer influences, school and family barriers, and systemic barriers (Manzano-Sanchez et al., 2019). Specifically, students have expressed difficulties being able to access scholarships and fear the disadvantages of getting a student loan. Feeling a sense of responsibility to contribute to their family (e.g., rent) also diminishes their aspirations. Of note, students feeling less efficacious and confident in their academic abilities also have fewer postsecondary aspirations (Manzano-Sanchez et al., 2019). When Latinx students have the support of their family members, friends, and school personnel, they typically aspire to pursue college (Manzano-Sanchez, 2019).

Social and Familial Capital

Familial capital is the cultural knowledge, memory, and history that young people gather from a wide variety of sources both within and beyond their closest blood relatives. Parent and community engagement is often discussed in early education, but not in higher education (Garcia & Delgado Bernal, 2021). Also, families of BIPOC students are framed in deficit ways in education (Valencia, 1997, Bertrand et al., 2018, Reynolds et al. 2015). Yet, families and communities play a vital role in supporting BIPOC and marginalized youth through high school and into college. In this section, we identify the theories as well as forms of social capital and familial capital that BIPOC communities use to prepare their children for college.

Familial capital. Students of color and college-bound youth have close family and community ties through which they sustain social and familial capital. Carey (2016) describes college-

going familial capital as resources collected by youth from an early age from a variety of immediate, extended, and fictive kin. He notes that schools are often unaware of this diverse and rich network of support. Harper et al. (2020) describe how the families of first-generation college students seek to provide advice while respecting students' autonomy. These parents form a network that includes similarly situated parents as well as extended family members to support their students. At the same time, other studies focus on the transmission of capital in a much more intimate family setting. Garcia and Mireles-Rios (2019) and Quiñones and Kiyama (2014) both analyze the unique role and impact of Latinx fathers on their daughters concerning their college aspirations and attainment. Both of these studies locate the origin of a social justice orientation and resistance to oppression in the conversations that occur between these fathers and daughters.

College success is constructed as a benefit for the family and community, and not strictly for the individual. Multiple studies (Carey, 2016; Harper et al., 2020; Mwangi, 2015; Quiñones & Kiyama, 2014) confirm that educational achievement is most often framed in terms of reciprocity—what the student can give back to their family and community.

In constructing their college aspirations and seeking support for their success, students draw on a wide range of sources for information and inspiration. Many students participate in college preparatory programs either within or beyond their schools (Dávila et al., 2020; Kiyama & Harper, 2018; Kniess et al., 2020; Moses & Wiley, 2020). Parents play a crucial role in this regard (Garcia & Mireles-Rios 2019; Quiñones & Kiyama, 2014), but of equal importance are aunts and uncles, cousins, friends, and all the non-parent family and community (NPFC) members (Mwangi, 2015) whose prior or current experience with college, successful or otherwise, that inform students' construction of their goals. Mwangi (2015) identifies this as familial social capital and notes that it consists largely of emotional support in the form of encouragement and empathy.

Community Capital. Attempts by high schools, nonprofits, and colleges to engage with students and their families, to draw on and enhance their social capital, vary substantially in their effectiveness. Kniess et al. (2020) describe a program for high school youth whose fathers do not live in the home. He found that the program's emphasis on goal setting, building relationships, and listening supported participants to be successful in college even after the program had ended. Moses and Wiley (2020), however, describe a program designed to increase access to higher education among low-income youth that is based on a deficit perspective. Staff at this program believe that students must learn to abandon the culture of poverty and adopt middle-class culture to be successful in college. Similarly, Dávila et al. (2020) profiled a college preparatory program that did little to support parents to navigate barriers to participation such as transportation and translation. In both of these cases, the programs were not designed to draw on and enhance the preexisting capital of students and their networks. To correct this, Kiyama and Harper (2018) suggest a Model of Parent and Family Characteristics, Engagement, and Support. This model encourages institutions to examine the assumptions they may hold about families and abandon color-blind and class-blind models of parent involvement. She encourages schools to adopt inclusive practices that emphasize participation and trust-building, and respond to the diversity of students' families and support networks.

In Summary

- Failure to examine the educational system using a racialized lens can lead to deficit thinking, which can negatively impact BIPOC students' prospect of becoming college ready.
- Critical Race Theory and Community Cultural Wealth Theory challenges inequitable outcomes for BIPOC students by centering their struggles as well as uplifting their own unique abilities.
- The education system is in need of work, including examining BIPOC students' unique challenges critically and valuing their assets within the classroom setting as much as White-centered skills and knowledge.
- Conley's theoretical framework on college readiness offers a skills-based approach to understanding students' preparation to succeed in college.
- Currently, there is a significant gap in understanding students' of color academic and college-going identities. Theories made with a White-dominant lens do not serve students of color effectively because they examine their qualities using a metric that is designed for White students.
- Too often, families of Black, Latinx, and other students of color are framed in deficit ways when discussing education (Valencia, 1997, Bertrand et al, 2018, Reynolds et al. 2015). Acknowledging the existence of social capital and using an asset-based lens like that of Yosso (2005) to explore community cultural wealth will highlight the ways the families and extended networks can benefit BIPOC students on their pathways to college.

While Conley's framework serves as a starting point, it will be important for stakeholders to examine other factors that can influence students' ability to become college ready.

- Utilizing a sociocultural, sociopolitical, and racialized lens (e.g., CRT, Community Culture of Wealth) will allow educators to better understand the challenges students of color face in obtaining the skills needed to become ready for college. Such challenges include access to academic resources and opportunities, stereotype threat, and others that can create barriers for marginalized students. Understanding these challenges and providing equitable solutions to combat them will ensure that children from marginalized backgrounds can pursue higher education and succeed in doing so.



Section 2.

Higher Education Context and Barriers to Equitable College Access and Readiness

This section summarizes the higher education context for BIPOC and marginalized students. We also explore the postsecondary pipeline of BIPOC and marginalized students, college access and readiness policies, and barriers to equitable college access and readiness.

The Higher Education Context

Examining the college enrollment and graduation trends of BIPOC and marginalized students is one way to better understand existing college access and readiness disparities. National trends indicate that total undergraduate enrollment increased by 37 percent (from 13.2 million to 18.1 million students) between 2000 and 2010, but decreased by 8 percent (from 18.1 million to 16.6 million students) between 2010 and 2018. Total undergraduate enrollment is also projected to increase by 2 percent (from 16.6 million to 17.0 million students) between 2018 and 2029 (NCES, 2019). This means that while undergraduate enrollment was trending upward for almost a decade, more recently it has slightly decreased and increased to a smaller degree. As of 2016, 78% of undergraduates attended public institutions, and 16% attended private nonprofit institutions.

Undergraduate Enrollment Disparities

While a much higher percentage of people in the U.S. have undergraduate degrees, enrollment disparities persist. The percentage of 18-24 year-olds enrolled in college, by race/ethnicity (NCES, 2019) is depicted in Figure 1.

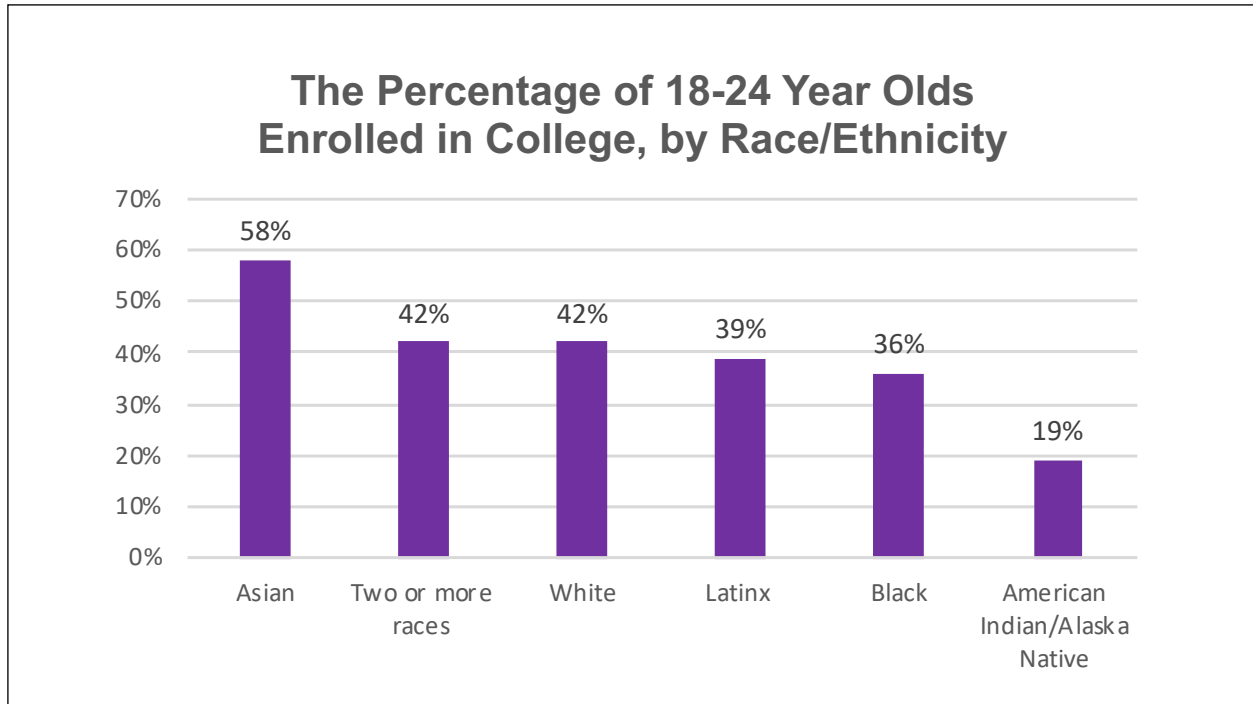


Figure 1. Disparities in college enrollment by race/ethnicity in 2016.

Latinx, Black, and American Indian/Alaska Native students had the lowest rates of undergraduate enrollment. However, between 2000 and 2016, Latinx undergraduate enrollment more than doubled (a 134 percent increase, from 1.4 million to 3.2 million students). In contrast, rates for White, Black, Pacific Islander, and American Indian students increased from 2000-2010, but declined from 2010-2016. It is also important to note disparities within racial/ethnic groups, in order to best customize and prioritize supports. For example, in 2016, the average college enrollment rate among Latinx students with roots in Central America was 33%, compared to the rate among students with South American roots, which was 53% (NCES, 2019). Among Asian students - who are too often overlooked due to the “model minority” myth - 78% of Chinese 18-24 year olds were enrolled in college in 2016, compared to only 23% of Burmese young people and 39% of Hmong young people.

Community College Enrollment and Transfer Trends

It is important to also understand community college trends as many BIPOC and marginalized students enroll in these institutions (Community College Research Center, 2020). Two-year institutions differ from four-year institutions because students need to transfer to complete their bachelor’s degrees. Additionally, fewer than 20% of students who started at community colleges in 2014 completed a degree at a four-year institution within six years. According to the Community College Research Center (2020), of all students who completed a four-year

degree in 2015-16, 49% had enrolled at a community college in the previous 10 years. The percentage of undergraduates enrolled at community college, by race, in 2018 academic year is depicted in Figure 2:

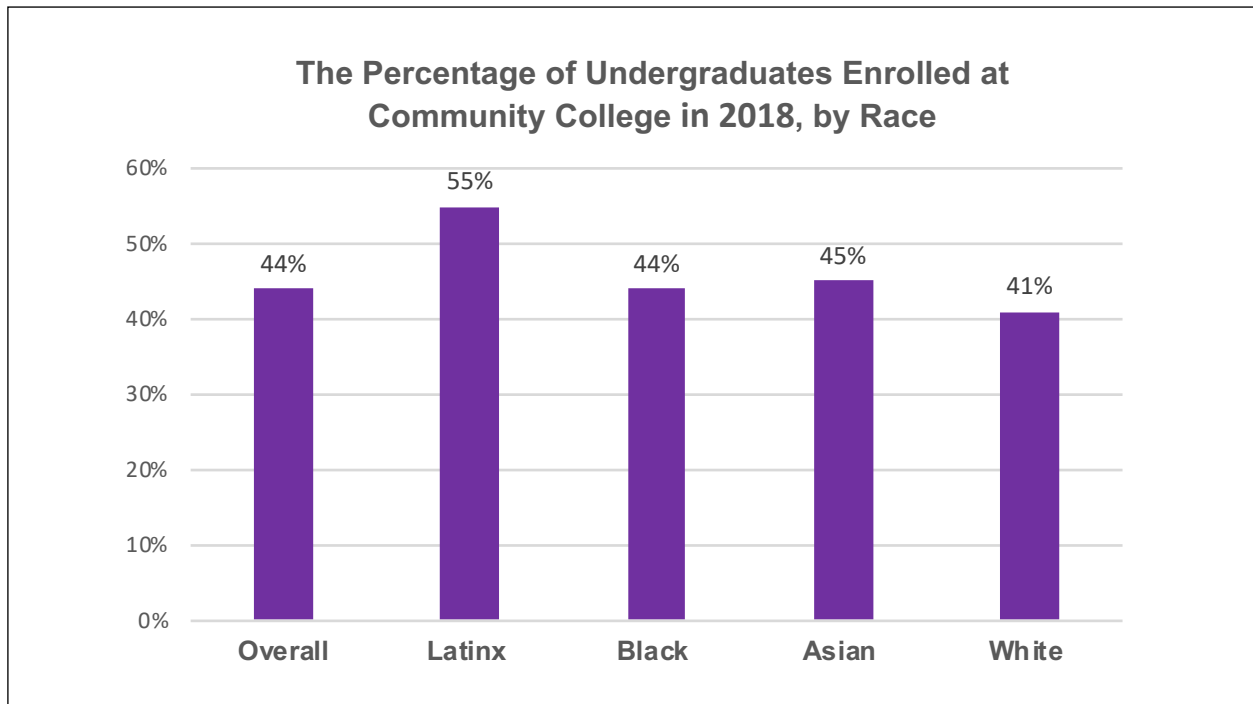


Figure 2. Percentage of undergraduates enrolled at community college, by race

Among Latinx undergraduates, 55% enrolled in community college—the highest percentage of any race.

Income disparities exist for community college students who complete a bachelor's degree. The National Student Clearinghouse (2017) shows that the rates of students earning bachelor's degrees who begin at community college varied by income. While the overall completion rate was 13%, for lower-income students, 9% earned bachelor's within 6 years, compared to higher-income students, among whom 20% earned bachelor's within 6 years.

The rates of students who earn bachelor's degrees who transferred out of community college and into a 4-year institution also varied by income. For lower income transfers, 35% earn a bachelor's degree, while for higher income transfers, 49% earn a bachelor's degree. When students transfer, they fare best in public institutions; 31% who transfer to private nonprofit institutions earn bachelor's and 41% who transfer to public institutions earn bachelor's (National Student Clearinghouse, 2017).

Public four-year schools are more likely to have an articulation agreement with community colleges, which enables students to transfer more credits. Students also fare better in 4-year institutions that serve higher-SES students and are more selective: 27% of transfers into lower-SES institutions earned a degree, 43% of transfers into higher-SES institutions earned a degree, 55% of transfers into very selective schools earned a degree, and 21% of transfers into nonselective schools earned a degree. Black students are not less likely than White students to enroll in a two-year school, yet they are less likely to use it as a stepping stone to a four-year school (Boylan, 2020).

College Retention Racial/Ethnic Disparities After First Year of College

Accounting for all races, first-year persistence rates barely changed in recent years, from 2015 to 2018 (National Student Clearinghouse, 2020). Of the 2.6 million students who enrolled in college as a first-time undergraduate student in fall 2018, 76 percent persisted at any U.S. institution by fall 2019. An average of 9 percent of freshmen, in any fall term between 2009 and 2018, transferred to a different institution by the following fall. First-year persistence rates by race are depicted in Figure 3.

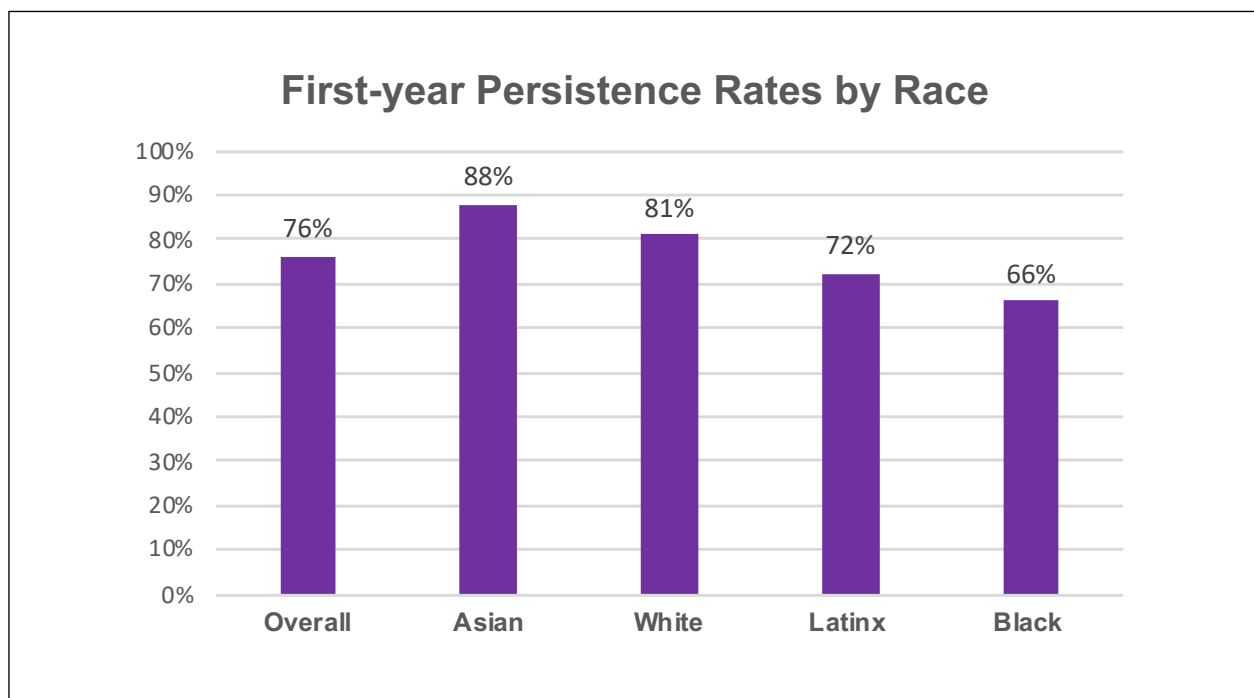


Figure 3. First-year persistence rates, by race. The percentages were only reported for these racial/ethnic groups.

First year persistence rates varied by the type of postsecondary institution. First-year persistence rates were higher for students in public 4-year institutions, and the racial gaps were smaller, compared to 2-year institutions. The first-year persistence rates were much lower for students in 2-year colleges. The persistence gap was highest between Asian and Black students. First-year persistence rates were highest in private nonprofit 4-year institutions, although not considerably different than in 4-year public institutions, and gaps were similar as well. The differences in persistence are depicted in Figure 4.

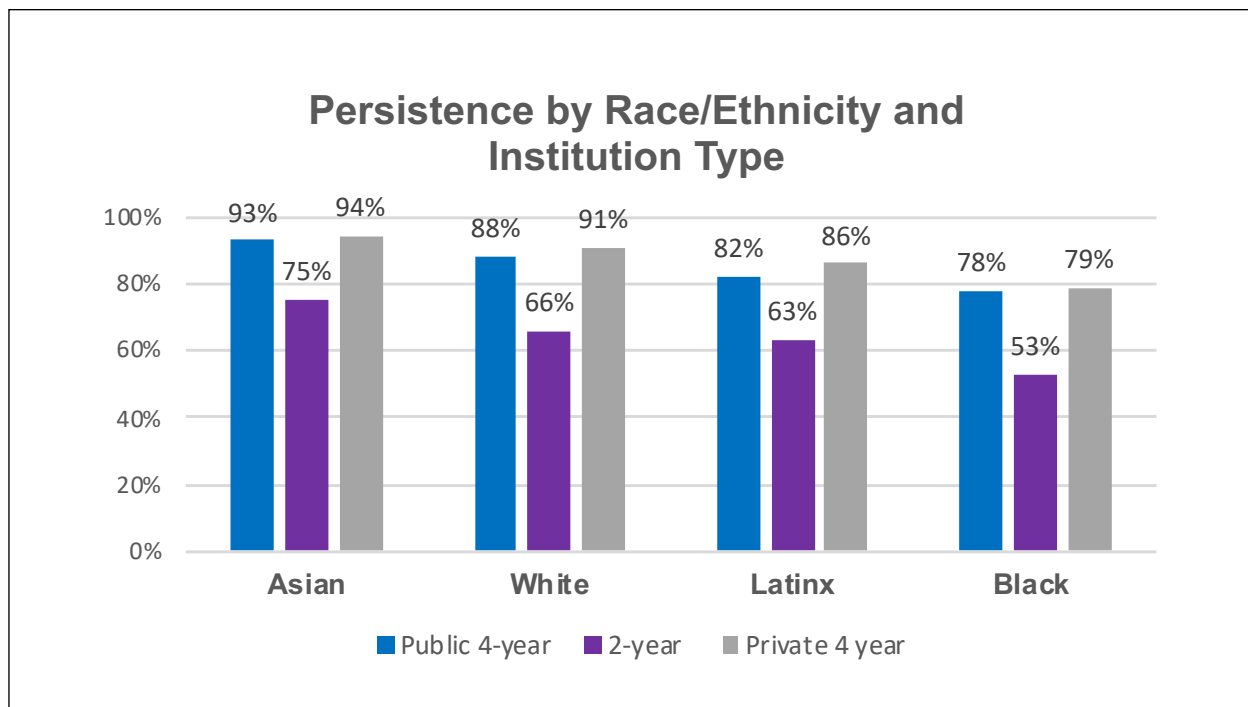


Figure 4. Persistence by race/ethnicity and institution type. The percentages were only reported for these racial/ethnic groups.

Racial/Ethnic College Completion Disparities

In 2020, the national six-year completion rate appears to have reached a plateau, showing the smallest increase of the last five years, a 0.3 percentage point growth to 60.1 percent (National Student Clearinghouse, 2020). The national completion rate has stalled largely because traditional age students and community college starters have lost ground. The six-year completion rate of community college starters declined for Latinx and Black students, despite previous growth. Only Asian students made gains, whose rate improved by 1.3 percentage points. Black students who started at public four-year institutions made stronger gains than White students.

Completion rates also varied by the percentage of low-income and minority population in the high schools students attend. For students from low-poverty high schools, 60% earned a degree 6 years after high school. In comparison, 23% of students from high-poverty high schools earned a degree 6 years after high school. For students from low-minority high schools, 53% earned a degree 6 years after high school. A lower percentage of students from high-minority high school (31%) earned a degree 6 years after high school.

The overall college completion rates by race/ethnicity in the U.S. are depicted in Figure 5 for public 4-year institutions and for public 2-year institutions (National Student Clearinghouse, 2020).

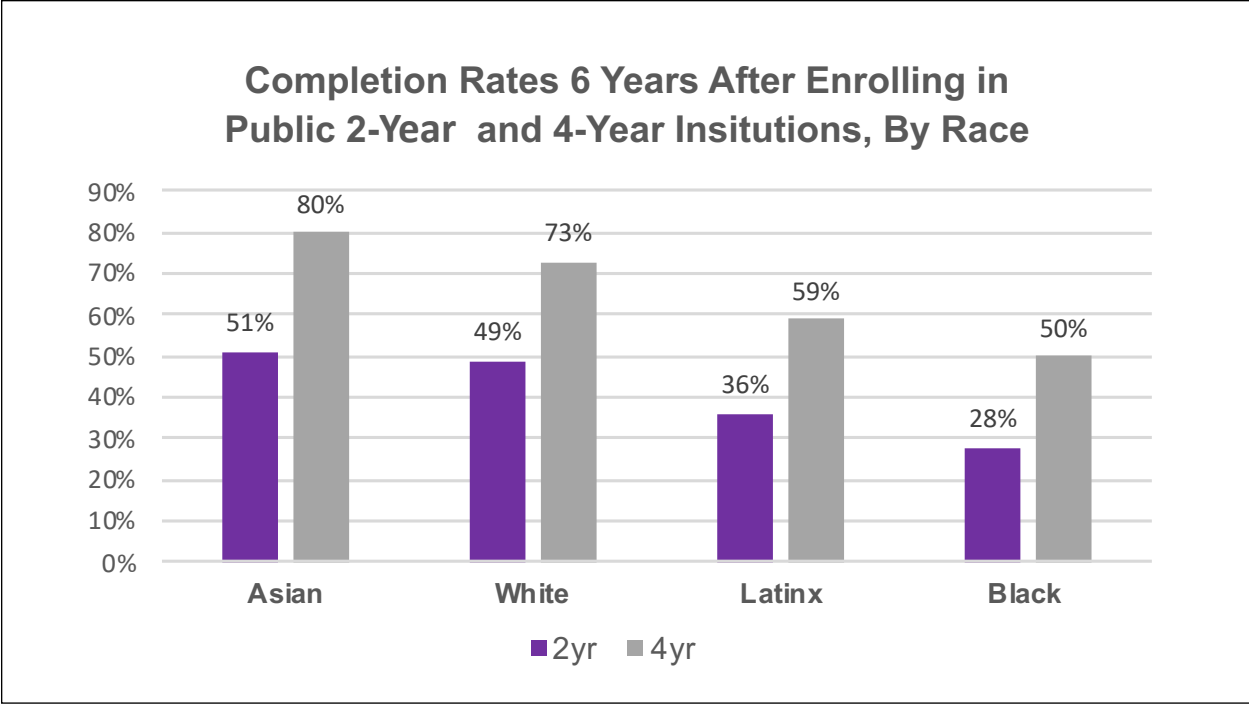


Figure 5. Completion rates (at any institution) 6 years after enrolling in public 2-year and 4-year institutions, by race. The percentages were only reported for these racial/ethnic groups.

Completion rates vary drastically depending on institution type, with students attending 2-year institutions faring the worst. The National Student Clearinghouse (2020) examined full-time and part-time undergraduate enrollment and found that students fare much better when attending full-time: For students enrolling full-time in 2014, 27% left college without earning a credential, compared to 54% among part-time students. This disparity can be attributed to part-time enrollment in community college, versus a 4-year college.

Note also that the 6-year graduation rate was higher for females than for males overall (63 vs. 57 percent) and within each racial/ ethnic group. The gender gap was narrowest among Pacific Islander students (53 percent for females vs. 50 percent for males) and widest among Black students (44 percent for females vs. 34 percent for males) (NCES, 2019).

In Summary

Latinx and Black students are not enrolling in and graduating from postsecondary education at the same rates as the Asian and White populations. Furthermore, BIPOC students are overrepresented in institutions with low graduation rates. As such, this literature view focuses on supporting college access and college readiness for BIPOC students.

Postsecondary Pipeline

We describe the postsecondary pipeline as including college match and fit, summer melt, and implications of COVID-19 on college enrollment. We approach these issues as potential ruptures in the postsecondary pipeline for BIPOC and marginalized youth and present considerations to prevent these ruptures.

Postsecondary Match, Fit, and College Completion. A “match” is when a student’s academic credentials, premised on grades and test scores, align with the selectivity of the college or university in which they enroll. A “fit” refers to how well a student meshes socially and academically once on campus. Students are more likely to graduate when they attend the most selective institution that will admit them (Bowen, Chingos, & McPherson, 2009), as less selective institutions tend to have less financial aid and offer fewer academic and social supports (Bowen, Chingos, & McPherson, 2009).

The degree to which students undermatch (i.e. attend a less selective college or university than they could) or overmatch (i.e. attend a more selective college or university than their credentials would indicate) is tied to high school and neighborhood contexts. For example, when examining the high school context, a standard deviation increase in the share of high school graduates admitted to a 4-year college raises the probability that a student overmatches by 3.6 percentage points and lowers the likelihood that the student undermatches by 3.0 percentage points (Dillon & Smith, 2017). Students with college-educated parents and who live in census tracts with more college graduates overmatch more and undermatch less. The effect of the census tract is particularly strong. A standard deviation increase in the share of adults with a 4-year college degree increases the probability of overmatch by 4.0 percentage points and decreases the probability of undermatch by 2.4 percentage points. (Dillon & Smith, 2016). Attending high schools that are sending more students to college and living in neighborhoods with a higher number of college educated adults have clear implications for college match. BIPOC and marginalized students may not be attending high schools or neighborhoods such as these because of existing racial and social inequalities

Other Considerations for Match and Fit. Postsecondary matches for BIPOC and marginalized students call for a more nuanced discussion beyond academics and test scores. When considering college fit, it is important to consider other factors of the institutions matched with students beyond selectivity. One factor to consider is the racism that exists in higher education. When examining college quality, criteria may favor predominantly White institutions, rather than those serving BIPOC students. For example, one manner through which colleges can be classified includes college rankings. Richards et al. (2018) used a CRT lens to analyze how two out of three popular college ranking systems’ median rankings for minority-serving institutions (MSIs) were lower than that of non-minority serving institutions. This difference points to the racialized definitions of “higher ranked” colleges. Furthermore, college rankings do not account for historical injustices, differences in resources, nor do they provide objective ranking methodologies (Richards et al., 2018). Since the rankings may describe these MSIs as lower ranked, they may indicate to BIPOC students to apply elsewhere when they may find a best fit at an MSI. Flores and Park (2015) add further evidence to the quality of MSIs. They found that in Texas, non-MSI graduation rates were comparable to non-MSIs graduation rates when accounting for student differences.

The Partnership for Los Angeles Schools (2021) recently released a publication connecting “best fit” college advising to success for students of color. The four criteria that the Partnership uses includes student interests and preferences, likelihood of admission, likelihood to graduate close to on time, and financial aid available for tuition and living expenses without having to take out substantial loans. This description of fit adds an important financial component as loans can be a concern for BIPOC students who cannot afford to pay for college. It also emphasizes the importance of students’ interests and preferences because although items such as “selectivity” matter in match, students must also feel that the higher education institution will meet their personal needs that go beyond academics.

Geography of Opportunity and Match. Research on the “geography of opportunity” in higher education illustrates that where students live shape their college decisions (Hillman, 2016). Students with a closely matched in-state public college within 50 miles have lower probabilities of both overmatch and undermatch. In-state tuition policies often make attending a home state college affordable compared to out-of-state colleges. Furthermore, attending college locally provides students other cost saving options such as lower travel expenses and the option to live at home (Dillon & Smith, 2016). Dache-Gerbino (2018) found concentrations of Black and Latinx students in “college deserts,” where there were limited local postsecondary institutions. Another national study found that low-income and first-generation college students were also more likely to live in college access deserts (Klasik et al, 2018). If low-income students prefer to stay closer to home but are in college deserts, this complicates the college match (Ovink et al., 2018). Aiming to connect BIPOC and other marginalized students to selective colleges is important. Still, similar to the interrogation of college rankings, it is vital to not solely focus on selectivity as the best fit for BIPOC and marginalized students. Other considerations such as racial climate, academic and social supports, location, and financial aid can also play important factors when deciding on colleges.

Impact of Summer Melt for Low-income Students. Summer melt describes the loss of qualified high school graduates from the path to college in the period between high school and college (Rall, 2016). Summer melt, nationally, among low-income students is anywhere between 8-40% (Castleman & Page, 2014) (it’s challenging to have a precise number because of the difficulty of collecting reliable data on this). The rates of summer melt are higher among:

- Students from low- and moderate-income families
- Students with lower academic achievement
- Students who intend to enroll at community colleges
- Students from high schools with greater proportions of students qualifying for free-reduced price lunch

Causes of Summer Melt with BIPOC and low-income students. A study analyzing graduates from charter high schools also found that Black and Latinx students were twice as likely as their Asian counterparts to change their college plans over the summer (Gonzalez & Thal, 2020). One of the significant causes of summer melt is that students may need to secure additional funds to cover gaps between the cost of attendance and the financial aid package they received. Students also need to complete a range of paperwork for their intended

institution: course registration, housing forms, and academic placement tests (Castleman & Page, 2014). A case study at a predominantly low-income Black and Latinx high school in Los Angeles found that for ten summer melters the reasons given for them not starting college included financial struggles, failure to meet requirements, inability to obtain the classes wanted/needed, inadequate support, and unclear communication (Rall, 2016). A larger mixed-methods study with a high percentage of low-income students who were college-bound seniors found similar concerns about not having a college-bound identity, financial and life concerns, lack of academic preparation, and considering other career options (Ober et al., 2020). This study also suggests the importance of social interactions with counselors using text messaging applications during the summer before the start of college.

Impact of COVID-19 on College Enrollment. High poverty and high minority schools experienced the highest college enrollment declines during COVID-19. According to the National Student Clearinghouse (2021), college enrollment declined in fall 2020, and more so among students from high-poverty and high-minority high schools. Community college enrollment declined the most. While COVID-19 has not impacted high school graduation in the school year 2019-2020, fewer graduates went to college immediately after high school in fall 2020, declining by 7% compared to 2019 graduates. In high-poverty high schools, immediate college enrollment rates dropped by 11%, compared to 3% in low-poverty high schools. In high-minority high schools, the college enrollment rate declined by 9%, compared to 5% in low-minority high schools (National Student Clearinghouse, 2021). The declines were also larger in urban and rural high schools, compared to suburban ones. In terms of immediate enrollment, community college enrollments dropped by 13%, while public four-year college enrollment only dropped by 3% (National Student Clearinghouse, 2021).

In Summary

- Important considerations for postsecondary match and fit include: academic alignment for students, how minority-serving institutions have been mischaracterized, and the geography of college opportunities. Fit criteria that considers student interests and preferences as well and financial aid availability is also essential.
- Summer melt happens at a higher rate in marginalized communities. Understanding the causes and potential solutions for summer melt among BIPOC and marginalized students is especially important.
- The impact of COVID-19 has disproportionately affected BIPOC and marginalized students.

Policies that Influence College Access and Readiness

Many college access and readiness policies currently exist to address educational inequities, though many have their own challenges. Of note, many policies are not explicit about equity and fail to amplify how they affect BIPOC and marginalized populations. Without this specificity, implementation at the federal, state, and local level may miss ways to better serve these populations. Below, we provide a list of policies at the federal, state, and district level.

College For All

With an eye towards equity to combat the underrepresentation of students in higher education, district-wide policy approaches to “College for All” aim to ensure that all students have access to college preparatory curriculum and are prepared to enroll and succeed in college. As scholars further unpack the “College for All” movement, they posit that there needs to be a greater focus on justice and democracy rather than solely focusing on students’ postsecondary paths (Kolluri & Tierney, 2018). Kolluri and Tierney (2018) call for “Justice for All” where students are prepared for civic engagement by developing skills such as critical consciousness. Quartz et al. (2019) documented how a district-wide “College for All” policy was implemented at one school site. Suggestions to deepen “College for All” policy implementation include making certain students at schools are not prevented from participation in college because of factors such as resources, opportunities, social esteem and respect. Quartz et al. (2019) also emphasized the importance of creating academic support for students to meet higher standards and the financial supports needed for college. Lastly, a consideration is that the public own what it takes to implement this type of school reform, including resources, supports, and follow-through to make “College for All” possible (Quartz et al., 2019). Like the “College for All” movement, approaches to equity at the intersections of college access and college readiness must also be expanded by using critical approaches. Too often college preparatory programs and research that seek to improve college readiness and access for vulnerable populations tend to take a deficit approach, primarily attributing the lack of readiness and access to student performance rather than examining the sociocultural context in which low-income and BIPOC youth must navigate. Taking a deficit approach constricts our view of the many systemic and sociocultural factors that impact BIPOC journeys to higher education.

Affirmative Action

Affirmative action in education takes a proactive approach toward ensuring diversity in the university setting. It treats characteristics such as race as a “plus factor” in decision making for admissions and scholarship opportunities. Generally, psychological and educational researchers note the importance of affirmative action in education: (1) It ensures diversity of student bodies, and (2) It ensures that selection procedures and decisions are fair (because students of color are already at a disadvantage with having to apply to universities that were founded in Whiteness. As such, their policies, practices, and wants in applicants disadvantage students of color). Many people in the general public are opposed to affirmative action based on their own notions of the policy. However, people tend to favor “soft” forms of affirmative

action like outreach programs over “hard” forms such as making race the tiebreaker in hiring decisions (Crosby et al., 2006). Allen et al. (2018) focused a 40 year analysis of educational trends and on legal cases that constrained opportunities in higher education for Black students. Black students had less representation at flagship universities and were more likely to attend and graduate from Black-serving institutions. Vue et al. (2017) interviewed Black and Latinx alumni from two race conscious high school intervention programs to better examine their understandings of affirmative action. Alumni counterstories discussed themes such as hostile discourses, contextualizing affirmative action, the confluence of race and class, and endgame.

Every Student Succeeds Act

The Every Student Succeed Act (ESSA) serves as the current federal education law. It takes a more comprehensive approach to determining school performance, compared to its predecessor, No Child Left Behind. While standardized test scores are important, ESSA also examines factors like attendance and school climate, and access to advanced placement courses in determining schools’ performance. It eases restrictions from No Child Left Behind and provides more power to states; however, principals are still required to send accountability plans, which need to address topics like English Language Learners (ELL) and graduation rates. Many pros and cons have been identified by the general public and researchers for ESSA:

- **Pros:** (1) The added attention to ELL. (2) With the power given to states, local school districts are now able to implement practices and methods that best fit their individual needs. This is critical as maintaining ELL classification during transitional school times can negatively impact high school graduation and attendance to a four-year university (Johnson, 2019).
- **Cons:** (1) Less parental notification—School districts are not required to notify parents if their child is attending a low-performing school and they do not have to prove that teachers are highly qualified in order to receive Title I funding. Based on this, it seems as though states have the opportunity to develop assessments and other practices with little oversight on how funding is spent. (2) Importantly, ESSA does not adequately address the connection between property taxes and school status (e.g., access to resources, opportunities, and qualified teachers); thus, it cannot make a significant effort to provide social justice in education.

The degree to which ESSA integrated College and Career Readiness (CCR) frameworks varies greatly by state. Some states do not address CCR standards or do so with little emphasis (Hackmann et al., 2019). Furthermore, most state plans do not address ESSA CCR aims with specific racial and ethnic groups. Because states have the power to implement different strategies and initiatives to fit their needs, it is important to examine such practices and discussions in order to determine whether they can be implemented in other places.

Delaware Initiative

School counselors play an important role in supporting students' educational journey. The American School Counseling Association recommends that there should be a 1:250 school counselor-to-student ratio in order for school counselors to be effective in their practices; however, in Delaware, the numbers were significantly above this ratio (in the 2013-2014 school year (Clinedinst et al., 2015). School counselors tend to spend less time talking with students about postsecondary options in low-income schools (Danos, 2017). This, in combination with insufficient school counselor-to-student ratios, reduce the likelihood that low-income students receive information about college. One potential option is for the Delaware General Assembly to mandate that each school should have enough school counselors to meet the recommended ratio (Danos, 2017). Another option could be to increase professional development funding for current guidance counselors in order to share the workload of college-related topics with school counselors. Finally, and potentially the most feasible, another option could be to increase school-community partnerships to supplement college counseling services in Delaware public schools (Danos, 2017). Such a policy could look like appropriating funds to universities and community-based organizations to implement pilot studies on school-community partnerships.

Florida Initiatives

Researchers in Florida (Iatarola, 2016) have called for the increase of advanced course offerings in high school. Taking at least one advanced course is associated with increased standardized test scores and 4-year college enrollment with those who take courses within the first two years of high school receiving the most increases. Florida currently has several initiatives to offer incentives for taking AP courses and passing related exams. For example, the Florida College and Career Readiness Initiative makes college placement testing mandatory for 11th grade students who score within a "college-ready" range on standardized 10th-grade assessments. Students identified as college ready were also provided college readiness courses. However, research notes that this policy has not had a significant impact on long-term college success (Mokher & Leeds, 2019). Such reasons include the notion of theory of action. Specifically, while stakeholders believed that notifying students of their academic status would motivate them to improve upon their skills, it could have had the opposite effect and actually discouraged them. This is especially true for marginalized students who require culturally responsive practices that are often not included in classrooms.

Many holes have been discovered in policy work that is meant to serve marginalized students. For example, Rodriguez (2018) found that high schools in the U.S. that serve predominantly low-income students of color do not align their curricula for graduation requirements with college admission requirements. Such misalignment included certain mathematics classes not being required in high school that would be required for their corresponding flagship university's admission. Perna et al., (2015) also found that when curriculum focused on college preparation, such as the International Baccalaureate program, is available, Black, Latinx, and low-income students are under-represented. As such, high school course offerings should align with the requirements of the flagship university's admissions requirements. Additionally, providing alternative courses, such as dual enrollment or advanced online coursework, can advantage students while ensuring that under-resourced schools are not having to bear

the burden of teaching more classes. It is important to note that Rodriguez (2018) found differences between low-income schools serving White students versus low-income schools serving Black and Latinx students, further warranting the need to target higher education supports for students of color. In addition to misalignment in school policies, limited research exists to examine policy outcomes related to college readiness for students with disabilities, Asian, and Indigenous students, warranting the need for the creation of policies that can provide equitable college access and readiness opportunities for these particular populations.

California Initiatives

Traditionally, undocumented students have found it difficult to receive financial aid in order to obtain higher education. This is especially true for state-funded financial aid. Adopted in 2013, the California Development, Relief, and Education for Alien Minors Act (CA-DREAM) provides undocumented students with aid in order to support their goals of postsecondary education. In particular, CA-DREAM provides fee waivers for per-unit enrollment fees at the community college level, which equates to approximately \$550 per semester. When evaluating this policy, Ngo and Astudillo (2019) found promising results, including academic engagement among undocumented Latinx male students. Additionally, receiving CA-DREAM aid resulted in higher academic attainment and persistence, suggesting the use of policy initiatives that can financially support undocumented students.

In Summary

- Many national policies exist to address educational inequities; however, progress has been stifled by the inability of current policies to explicitly address root problems.
- Looking at state and district policies can help to understand what could work in other settings. Policies that can provide financial support and guidance to marginalized students have the potential to increase students' postsecondary education goals.

Barriers to Equitable College Access and Readiness

We conclude this section by presenting barriers to college access and readiness, among BIPOC and marginalized youth. Generally, marginalized communities have the added battle of succeeding within a system that was not designed to help them do so. Examining the intersection between race, class, and sociocultural contexts, we know that there is a longstanding history of struggles for Black and Latinx individuals. With oppressive practices like redlining (i.e. not offering housing loans to people of color), ethnic minority individuals are forced to stay in under-resourced neighborhoods. These under-resourced neighborhoods produce under-resourced schools due to the small property tax that is received from such houses. Characteristics of these inferior schools include lack of educational resources, lack of educational opportunities, inexperienced teachers and lack of support, and overall poor academic experiences for children of color (Burke & Schwalbach, 2021). These characteristics, as well as others, can lead to decreased college access, readiness and eligibility.

Insufficient Student-Staff Relationships. Many diverse schools employ educators who are racially different from their students. For example, Yeager and colleagues (2017) found that the majority of teachers in many diverse schools are White, creating a barrier to relationship building. When student-teacher relationships are not positive, teachers are less likely to inspire students to obtain higher education goals (Yeager et al., 2017; Davidson et al., 2020). Outside of the classroom, barriers to college readiness can form when students do not have access to school guidance counselors. School counselors are critical in providing students with college planning guidance (Hines, 2017); however, many low-income students attend schools with insufficient access to counselors (Comeaux et al., 2020), further decreasing their ability to become college ready.

Cultural Stereotypes/Racism. Students of color often experience cultural stereotypes, a form of deficit thinking based on a person's race/ethnicity or gender, which can affect their ability to receive adequate educational opportunities that prepare them for higher education. When educators utilize cultural stereotypes, they tend to focus on individual situations versus examining the structural inequities that shape those individual situations (Weber et al., 2018). Cultural stereotypes result in educators not challenging students to think critically and do higher-level work, diminishing their chances of being successful in postsecondary education (Kiyama, 2018). Black college students identified challenges they faced as not feeling academically prepared for college and not enough academic support services offered to help them as well as experiencing racism inside their classrooms and at the university campus (Harper et al., 2018). Meanwhile, high achieving Black students in another study chose not to enroll in University of California public campuses because they were denied entry into the most selective institutions, needed financial support, and became aware of racial climate issues at some UC college campuses (Comeaux et al., 2020).

Cultural Stereotype Example			
Cultural Stereotype	The Situation	The Action	The Result
Black girls are troublemakers.	Black girl refuses to do her work because it is too hard.	Teacher allows her to do what she wants in order to avoid trouble.	The Black girl is not challenged in performing the work.
<p>A common cultural stereotype is that Black girls are troublemakers. In a classroom, this is never said aloud; however, practices can inherently provide this message. In this example, the student is refusing to do her work because she believes it is too hard. The teacher allowing her to not try in order to avoid escalating the students' negative behaviors simultaneously means that the student is not being challenged. It sends a reinforcing message to that student that she is not capable, shaping her view that she is not capable of challenging work at the postsecondary level. Additionally, the teacher may believe (s)he has good intentions by allowing the student to not have to do the work. They could believe that this helps build the student-teacher relationship; however, this is a costly practice that further diminishes the students' belief that she can be a good student.</p>			

Lack of Financial Support. With the price of college continuously increasing (Baum, 2018), attending a postsecondary institution is a significant challenge. Lack of financial support can lead students to be ill-prepared for college applications. Despite having unequal access to appropriate educational resources, low-income students are still faced with taking the same college-entry standardized tests as their same-aged (but well-off) peers. This unequal access to educational resources leads to those low-income, and oftentimes racially marginalized, students to score much lower than their White, middle-class peers (Davidson et al., 2020). Furthermore, those marginalized students do not have enough funding to be able to retake those standardized tests, lessening their chances of receiving entry to higher education (Davidson et al., 2020). In addition to financial barriers for testing, many marginalized youth worry about financial aid and often have to navigate the process on their own due to their family not having insight about the college process and not have access to resources within the school system (e.g., guidance counselor) that can help them to fill out Free Application for Federal Student Aid (FAFSA) applications and scholarships.

Once students are able to overcome the hurdle of finances for applying to college, another battle begins as they often struggle to pay for college going forward. With deep cuts in state funding over the past decade, paying for college has become more of a burden for students, especially those of color and from low-income backgrounds who were already struggling (Mitchell et al., 2019). Funding cuts have resulted in a number of barriers to students of color. This includes reduced academic opportunities and student services (Mitchell et al., 2019), which have helped students of color to navigate the novel world of college. For example, critics of the TRIO Program, which aims to help first-generation college students navigate the university setting, have proposed budget cuts to the program, which would ultimately affect students of color and low-income students' access to support. Additionally, because Black

and Latinx students are statistically more likely to be low-income due to historical and racial trauma, they are more likely to borrow loans to pay for post-secondary education (Havens, 2021). Subsequent racial and gender wage gaps disadvantage these individuals by making it hard for them to repay their loans (Havens, 2021).

Essentializing Students. Essentializing can be understood as the process of classifying multiple ethnic groups under one social category (e.g., Latinx) and assuming that all members of that social category have the same experiences. Essentializing racial groups can prevent an understanding of how BIPOC students' multiple identities and experiences influence their educational trajectories. Ayala and Ramirez (2020) studied Latinx college student experiences and discussed how essentializing BIPOC students minimizes differences in their experiences and ignores their multi-dimensionality.

While it is important to consider race/ethnicity, ignoring other identities that students have presents an additional barrier to college access and readiness. Acevedo-Gil (2019) found that while teachers offered college-information to their Latinx students, the teachers failed to engage in discussions regarding this information. Without the discussion, students were unable to share their perspectives from their multiple identities as they processed the college information. While teachers were doing their best to serve Latinx students, by not offering space to for students to talk about the college information through the lens of their multiple identities this type of college information was essentialized. Acevedo-Gil (2019) discussed how Latinx high school and post-high school students using a lens that considers their intersectional identities (“la facultad”), including immigrant status, socioeconomic status, first-generation college identity, and previous academic achievement, led them to anticipate postsecondary obstacles when accessing college information, including financial cost, academic preparation, and navigating higher education for the first time. For example, those from a lower socioeconomic status will find that they need to look for and apply for scholarship and grant opportunities. Those with a first-generation college identity may have trouble navigating a novel setting. Intersectionally, a first-generation college student from a lower-income background, may find it hard to find and navigate scholarship and grant applications.

In Summary

- Several barriers do exist to prevent students of color and other marginalized students from accessing and being ready for college.
- Unique barriers to consider for BIPOC and marginalized student include insufficient student-teacher relationships, cultural stereotypes/racism, lack of financial support and **essentializing students**.
- Doing so can ensure that practices to pursue college and address these barriers do not utilize a one-size-fits-all approach.



Section 3: Practices that Support College Access & College Readiness

This section synthesizes a number of best college access and readiness practices, from elementary school to high school, at the classroom, school, and district/system-wide level, with a particular emphasis on BIPOC and marginalized youth. In giving examples of what is working with regards to college access and readiness, the hope is that practices such as these can be modified to local contexts, scaled up, and replicated where appropriate.

Classroom-Level Practices

We examine college access and readiness practices that are implemented at the classroom-level. Teacher-centered practices, classroom interventions, and a focus on literacy emphasize what is required to prepare BIPOC students for college.

Positive Student-Teacher Relationships

While negative student-teacher relationships can impede college readiness, positive student-teacher relationships and support from teachers can help to facilitate the process. One study found that Black students randomly assigned to at least one Black teacher in grades K-3 were

9 percentage points (13%) more likely to graduate from high school and 6 percentage points (19%) more likely to enroll in college than their same-school, same-race peers (Gershenson et al., 2018). Teachers maintaining asset-based perspectives towards BIPOC students can serve as a bridge between high school and college (Acevedo, 2020). Students perceiving their teachers in a positive light has also been associated with a smoother transition to college for marginalized and underrepresented students (Perez-Felkner, 2015).

The “warm demander” teaching approach is a culturally responsive pedagogical technique that promotes socio-emotional connection and academic success for BIPOC students (Ladson-Billings, 1994). Ford and Stassi (2014) describe the authority of the warm demander as constructed through a confluence of care, discipline, high expectations, and a congruent interactional style, while the warm demander’s broader stance is grounded in the shared culture of African Americans. A recent study showed a positive relationship between teachers who students described as having warm demander characteristics and African-American student achievement growth, determined by teacher value-added scores (Sandilos et al., 2017). While the literature does not clarify connections between warm demander approaches and college readiness, Boucher and Helfenbein (2015) connect critical approaches, warm demander, and academic experiences of vulnerable populations. They mention college and understanding that process as a challenge for vulnerable populations.

At the same time, there are cautions connected to how teachers can implement this approach. Ford and Stassi (2014) conducted an ethnographic study that revealed differences in the warm demander approach when enacted by a Black teacher and a White teacher with Black students. One of the findings highlights the importance of White teachers raising their critical race consciousness. Cosier (2019) also explored Whiteness when cultivating warm demanders in her pre-service art education teaching class. She found that students had trouble finding models of warm demanders in predominantly White spaces. Preservice teaching students would not reflect on issues related to race, something that was asked of them as part of learning the warm demander approach. Meanwhile, Sondel et al. (2019) highlighted how white saviorism, colorblind racism, and anti-blackness in “No Excuses” charter schools complicate White teachers as warm demanders. In the two charter schools studied, while White teachers used texts for teaching like warm demanders by Lisa Delpit, the ideas were misused and promoted White supremacy. White teachers modeling warm demanding at these charter schools demanded high expectations and claimed to prepare students for the culture of power, but did not honor students’ culture, analyze how White supremacy operates, nor challenge their own biases.

Although we focused on student-teacher relationships in this section, peer relationships are also critical (Perez-Felkner, 2015). Peers are indispensable for Latinx students, in particular, because they often encourage students to meet milestones on the way to college, as they share similar struggles and aspirations (Perez-Felkner, 2015).

Implementation of Specific Interventions/Curricula

Few studies have evaluated the implementation of select interventions sought out to increase college readiness in elementary-aged students. Below, we provide a summary of empirical articles with positive effects on students’ college readiness. It is important to note that

implementing the conversations within the interventions can be done without implementing the entire intervention; however, positive results are only evidenced from the implementation of the intervention in its entirety.

Operation Occupation Mariana et al. (2016) provided a college and career curriculum to 5th grade students. This curriculum recruited counselors and teachers within the school to deliver the four classroom lessons over the course of one week:

- Lesson 1 explored wants and needs (e.g., cell phone, water, health care, etc.) and connected them to decision-making.
- Lesson 2 focused on different learning staples and understanding that life-long learning is necessary for postsecondary education.
- Lesson 3 focused on personality types and occupations that correspond with them.
- Lesson 4 focused on job skills, including communication and social skills, mathematics, and computer skills.

This curriculum also included a career fair in which students could supplement the information learned from the lessons with real life examples. Results of the curriculum included a significant increase in college interest, as well as knowledge about college and career readiness. It is important to note that White students made up the majority of the student population; however, this same curriculum can be provided within a culturally responsive context to benefit BIPOC students. For example, ensuring that the career fair includes a number of professionals of color will ensure that all students can see representatives from their own background pursuing exciting and interesting careers.

The REACH Career and College Readiness Curriculum Allen et al. (2019) involved a six-session curriculum to enhance career and college readiness self-efficacy among 4th graders with the help of one school counselor and one intern. The curriculum included 50 minute sessions over 8 weeks where students began each lesson with check-ins. Topics included determining life desires and what is most important to them, goal setting, becoming acquainted with career exploration tools, and learning about the college application process in a developmentally appropriate way. Compared to the 4th grade students who did not receive the curriculum, after 8 weeks, the Black and Latinx students who did receive it achieved higher career and college readiness efficacy scores. It is important to note that only 46 students received the curriculum, which may be important for future educators when wanting to implement this curriculum. Additionally, we do not know how increased efficacy in 4th grade translates into college and career readiness in adolescence.

Literacy Instruction

Literacy skills are extremely important for college as students are expected to adapt to a novel environment in which learning expectations are more independent than high school (Rasinki, 2017). Turner (2019) offers four practices/principles to improve K-8 Black students' college and career readiness through literacy instruction. These practices have also been seen in other previous works and are congruent with culturally responsive instruction. Such culturally responsive practices are provided in a developmentally appropriate way.

- Leverage students' community knowledge and career aspirations for literacy skill instruction. Rather than educators providing knowledge to students through a one-way street, literacy instruction should begin with students' providing information regarding their cultural worlds and knowledge regarding their communities and how that information relates to the classroom topic. These conversations should also connect students' future career goals and aspirations to the topic.
- Center students' racial and cultural knowledge within instruction. Educators should utilize literacies that are racially relevant in order to understand themes, characters, plots, and other literacy-related topics. When students see themselves in the text, they are able to draw upon their own cultural context and knowledge and make more effective connections to the literature. For example, many educators utilize the book, *Roll of Thunder, Hear My Cry* (Taylor, 1976), in order to increase children's historical knowledge, learn new vocabulary, and increase their critical consciousness through discussing racist events and characters.
- Promote liberatory literacies through different types of writing. Providing increasingly complex texts to students allows them to build their capacity to think critically. Educators should provide opportunities to critique different types of texts with varying complexity. For example, when Black children can share their own expressions through poetry, they are able to overcome the thought of being a "bad writer" due to their previous experiences with monogamous White-centered texts (Kinloch, 2005).
- Inspire skill development, critique, and action through "problem-posing" projects. Researchers suggest educators provide frequent opportunities for students to examine issues of power, privilege, and oppression (Turner, 2019). Educators should have students critique, discuss, and act in order to increase their critical and sociopolitical consciousness.

Problem-Posing	
Practice	Example(s)
Critique	Critiquing school- and community-related policies that are relevant to students (e.g., Wearing school uniforms/other school clothing requirements; student voices in school changes; local business opening near low-income homes)
Discuss	<ul style="list-style-type: none"> - Talk about the advantages and disadvantages to a relatable new bill being introduced in legislation - Conduct interviews with community members and/or school stakeholders and share findings with classroom
Action	<ul style="list-style-type: none"> - Require a student-led community based project in which students attempt to solve a current local issue - Utilize interview and needs assessment to propose a project/action for a need of interest - Whole-class project: Present findings of a needs assessment to a school official including recommendations to intervene

In Summary

- While the culturally warm demander can be used to teach BIPOC and marginalized students, issues such as the race of teachers and correct implementation of the approach is important.
- A connection between warm demanders and college readiness is not found in the literature, but it does connect to the academic experiences of marginalized students, which does connect to college access and readiness.
- Interventions within the classroom setting should look to bring awareness to college as well as skills and interests that connect to college.
- Literacy instruction should work to be culturally responsive in order to increase engagement among students. Subsequently, instruction should challenge students to critique and problem-solve as these skills will help to increase their readiness for college.

School-Level Practices

College access and readiness practices can be implemented school-wide. Effective practices can put BIPOC students on the college path. We discuss several college readiness practices for high schools, the importance of positive messaging, targeted interventions, and specific services for immigrant and refugee students to magnify how to best serve BIPOC students.

High School Approaches

Much more research exists to examine practices that can influence college readiness in BIPOC/marginalized students in high school as compared to elementary and middle school. With their postsecondary futures only years away, researchers have examined several practices, factors, and interventions that can increase BIPOC/marginalized high school students' college readiness, awareness, access, and knowledge. Practices are provided in more detail below. It is important to note that some practices will be similar to elementary and middle school recommendations; however, how they are implemented should be appropriate to the age-group. Additionally, while research has been able to identify these helpful practices in preparing students for college, evidence is sparse as to what outcomes are associated with what combination of practices.

College Readiness Practices for High School Students

Practice	Explanation	Example
Extracurricular and Service Engagement	BIPOC students engaging themselves in extracurricular activities has been associated with college enrollment as well as college persistence (Bryan et al., 2017; Martinez et al., 2020).	Schools should provide notice to students (through several mediums) regarding extracurricular opportunities.
Developing Critical Consciousness	BIPOC should develop critical consciousness (critically examining systematic barriers to college access and persistence). This allows them to see their communities as resources and develop a sense of responsibility to their communities (Scott et al., 2015; Hudson et al., 2020).	Providing students opportunities in class to critique educational systems in order to provide an applicable example to them in which they have the opportunity to act upon
Mentorship	School stakeholders should provide low-income BIPOC students with opportunities to receive information from those who have gone to college (Brooks, 2018)	Connecting students with mentors representing their racial group who can share their experiences with college
Making the College Application Process Easier	Educators should provide BIPOC students with opportunities to work on college applications within instruction (Liou & Rojas, 2020).	Having students write autoethnographies about their personal lives to evaluate their status in the educational pipeline and turning the assignment into college personal statements (if they choose to do so).
Support for the College Application Process	Schools should assist students in completing steps for college entry, including helping them with the college application process (Tierney & Garcia, 2014).	Creating a college-going student support group where school counselors can directly help students navigate the application process
Encouragement	Practices do not have to be extensive. Even simply encouraging students to attend college has been associated with college persistence in students (Bryan et al., 2017).	Educators should set high expectations for their students and make note of them directly to students.

College Readiness Practices for High School Students

Practice	Explanation	Example
School Climate	The whole school makes a difference in college aspirations and readiness. Putting an emphasis on socializing students to college norms over academically rigorous curriculum (though still important), can increase college readiness in low-income Latinx students (Athanasases et al., 2016).	Setting up boards in the hall with information about different colleges; have representatives from colleges come set up a table during lunch time once a month.
Culturally Responsive & Sustaining Education	Schools should seek to develop culturally responsive and sustaining practices by doing the following: (1) More continuous professional development on culturally responsive education, (2) identifying feasible and sustainable entry points to specifically work with Black and Latino male youth within their current role whether teacher or support staff, (3) develop, implement, and refine action plans, and (4) Accept accountability and responsibility for creating culturally responsive college-going culture for Black and Latino males (Knight-Manuel et al., 2019).	Identifying one's role within the school and developing a way to reach out to Black and Latinx youth within that role regarding relationship building and college-related topics. Though this may be easier for some roles versus others (e.g., teachers versus secretary), all must play a role in creating the environment. A secretary can develop material for the morning announcements regarding different colleges. Seek collaboration with others to help develop ideas.
Supporting College Finances	Schools should help to increase students' and families financial awareness and help students apply for financial aid (Dahir, 2020).	Provide reminders and announcements during morning announcements of new and ongoing scholarships available in the guidance office.

Providing Positive Messages & Support

While deficit perspectives can serve as a barrier for students, diminishing those narratives can serve as a facilitator. Harper (2015) discussed the use of the Anti-Deficit Achievement framework, which opens strengths-based discussions for Black males. Harper (2015) provides them with messages about college, and treats them as students who can be successful and achieve academically. This framework, targeted for both students and school personnel, moves them away from perceiving their surroundings as bad. For example, moving away from believing that nothing good comes out of low-income schools allows educators to decrease their likelihood of harming students due to cultural stereotypes. When students are exposed to positive messages about themselves and their schools, they are able to develop positive identities and pursue higher education aspirations. Though a noble outlook, it is important to note that positive messages cannot be all that marginalized students receive in order to be college ready. Murillo (2017) found that providing undocumented students with positive messages and support regarding college and providing them with financial aid support and navigation through the Deferred Action for Childhood Arrivals (DACA) were important for transitioning into higher education. The students needed positive messages regarding college access along with support navigating access as an undocumented student, which boasts its own challenges. When given the navigational support needed, college accessibility became attainable.

Tiered Approaches

This section discusses two types of targeted interventions, targeted universalism and multi-tiered systems of support (MTSS). The intent behind these approaches is for interventions targeted for marginalized groups to also have components that serve all students. While there is limited literature about targeted universalism, there are more articles about connecting MTSS to college access and readiness frameworks.

Targeted Universalism. Powell (2009) describes how targeted universalism sees marginalized populations as “canaries in the coal mine” (term from “The Miner’s Canary”), meaning that the problems that certain parts of American society experience can affect those in larger society. He also describes how a targeted universalism strategy is inclusive of dominant and marginalized groups, emphasizing marginalized groups. The Oakland Unified School District (OUSD) used this approach via their African American Male Achievement program, which OUSD later aimed to scale for girls and other students of color (Chatmon & Watson, 2018). While there is no direct link in the literature between Targeted Universalism and college access and readiness, a quasi-experimental study on the OUSD initiative found a reduction in drop-out rates of Black males and, to a lesser degree, female students (Dee & Penner, 2019).

Multi-Tiered Systems of Support and College Access and Readiness. MTSS is a prevention framework that addresses student needs with different tiers of support with varying levels of intensity (Hayes & Lillenstein, 2015). Hayes and Lillenstein (2015) present a framework for student learning and growth where college and career readiness standards are implemented through tiered levels of support, along with formative and frequent opportunities for teacher evaluation. Another framework connecting MTSS to college and career readiness standards makes the case that connecting MTSS to six college and career readiness domains including academic engagement, mindsets, learning processes, critical thinking, interpersonal

engagement, and transition competencies, will serve students with disabilities and all students (Morningstar et al., 2018). One example given was the use of individual learning plans being used for all students as a way to create mindsets that focus on college and careers. Darling-Hammond and Cooke-Harvey (2018) discuss the importance of implementing MTSS in a culturally competent way, where student assets rather than deficits are highlighted. This approach is especially important for BIPOC students who may be from cultures not represented in the school environment or who have been previously viewed through deficit lenses. While there have not been studies using the frameworks presented by Hayes and Lillenstein (2015) or Morningstar et al., (2018), this is a starting point for states, districts, and schools to consider how to more seamlessly bring together MTSS and college and career readiness.

Individualized Support. Many of the studies we reviewed explored and encouraged the role of individualized support on college readiness and preparedness (Armbruster & Hatch, 2019; Britton & Spencer, 2020; Toews et al., 2020). Individualized support means identifying specific student goals and preferences for learning and designing individualized supports, including instruction, curricular adaptations, peer and personnel supports. Individualized support requires viewing students as individuals who have their own academic, career, and social development trajectories.

Individualized support for students to help them plan for their future can help to facilitate higher education aspirations. For example, Britton and Spencer (2020) found that creating individualized learning plans, which helps to identify and prepare postsecondary goals, with low-income high school students increased students' chances of applying for financial aid and submitting applications to multiple higher education institutions. Similarly, Armbruster and Hatch (2019) utilized a student-centered approach toward increasing Latinx students' academic and career development, and found that, at the end of the program, 82% of students had been accepted at several postsecondary institutions. Hallmarks of this approach included a culturally responsive curriculum, college/career development, and a guest speaker series, local college fairs, and financial aid workshops. If students were not able to attend, their school counselor brought the information to them directly.

Specific Services for Urban Immigrant & Refugee Middle School Students

Immigrant and refugee students have an added layer of navigating a new society while facing academic challenges (e.g., being forced to assimilate to White-dominant culture and alienating their linguistic and cultural traditions). Of course, this added layer can make it hard for students to achieve college readiness. Several practices can help students increase their college readiness through common indicators of readiness, such as GPA and attendance rate.

Previous literature suggests that immigrant and refugee students are likely to experience chronic absenteeism when they feel as though they do not fit in (Meloche et al., 2020). Thus, it is suggested that an attendance team, including a school counselor and community-school facilitator like a school psychologist, monitor attendance and visit the homes of students to address issues in a non-punitive manner. This allows schools to build home-school collaboration as well as make school a more comfortable environment for students. Research also suggested that schools who have onsite cultural navigation support, school-based mental health services such as counseling, and trauma-sensitive school training can help immigrant

and refugee youth address and decrease their stress, thereby increasing their chances of attending school.

In regard to academics, immigrant and refugee students utilize more cognitive energy in classrooms because they have to translate materials and then respond to the material (Reyes, 2020). In order to address this, research suggested that schools create environments that allow students to increase their social capital. Such practices include families being assigned school-based cultural navigators who can assist with acculturation. Acculturation refers to students maintaining their cultural orientation while also orienting themselves with the mainstream culture. This differs from assimilation, which would require students to decrease their cultural orientation (Moinolmolki, 2019). It is important for immigrant and refugee students to continue building on their own language, knowledge, and cultural identities. Providing ESL tutoring and homework aid will also help students to decrease the time they spend navigating class assignments.

In Summary

- Several practices have been documented to increase college-readiness among students at different developmental periods. These practices utilized multiple stakeholders (e.g., parents, teachers, administrators, community members) and took individualized approaches. While building academic skills in students is important for college readiness, it is important to also focus on non-cognitive factors and critical consciousness. Simply having conversations with students about college can make a meaningful difference.
- Researchers still have work to do in regard to refining practices. Little evidence exists to examine college readiness in younger students despite research noting the importance of instilling college self-efficacy in them. Additionally, more research is needed to understand specific strategies for different races/ethnicities. Regardless, it will be important for educators to take individualized culturally responsive approaches to helping students gain access to college and be ready to apply.
- Targeted Universalism is found to a limited degree in the literature. One school district that implemented targeted universalism found that it improved outcomes for Black students.
- Multi-tiered systems of support is another approach to having universal and targeted approaches for students. MTSS has been connected to college and career readiness frameworks.
- Simply encouraging students and providing them with positive messages about college and educational aspirations can motivate them to pursue higher education. However, it is important to note that this must be coupled with explicit college application and financial aid support.
- Addressing attendance (e.g., home-school collaboration) and addressing academics (e.g., acculturation support) can ensure that refugee and immigrant students can academically succeed while also maintaining their cultural identity.

District-Level/System-Wide Practices

District level/systemwide practices can help students become ready for postsecondary education. Such practices span across the K-12 context and across several stakeholders (e.g., home-school collaboration). In this section, we discuss components of college and career readiness recommended by the College Board National Office for School Counselor Advocacy (NOSCA), university-school partnerships, and the use of data.

Components of College and Career Readiness Framework

The College Board National Office for School Counselor Advocacy (NOSCA) presents eight components of college and career readiness that can result in the implementation of more specific strategies/practices. Many of these overlap with the recommendations for high schools presented above, but districts could support schools by including the following (NOSCA, 2010) components and the district-wide practices we offer as examples for each component:

Components of College and Career Readiness		
Component	Explanation	Example Practice
College Aspiration	Providing a college-going environment through college awareness	Providing teachers district/system-wide workshops and professional development on connecting conversations in all classrooms to college.
Academic Planning for College and Career Readiness	Providing students with rigorous academic opportunity in order to advance students' college preparation and performance	Implementing structured meetings with guidance counselors to ensure that students are receiving the most effective academic planning for college
Enrichment and Extracurricular Engagement	Exposing students to extracurricular activities that can enhance their interests and talents as well as their college applications	Developing community partnerships that offer enriching extracurricular opportunities for students
College and Career Exploration and Selection Processes	Providing ongoing experiences that allow students to better plan their postsecondary future	Monthly: Offer students and parents in the district community workshops on college and career exploration

Components of College and Career Readiness		
Component	Explanation	Example Practice
College and Career Assessments	The utilization of college and career assessments (including college entrance exams) for all students	Providing yearly college and career assessments to all students to include in district-level report cards
College Affordability Planning	Providing initiatives that will give students and their families information regarding paying for college	Setting up a yearly group for seniors applying for college. Group will engage in scholarship planning and writing
College and Career Admission Process	Providing information to students and their families regarding the college admissions process	Parent outreach regarding the admissions process; offer to send home information via paper or email, have district-wide parent meetings with interpretation if necessary to discuss college admissions information
Transition from High School Graduation to College Enrollment	Connecting students to community resources in order to overcome barriers that could prevent attending college	Providing a summer program for college-going graduates that helps with the transition process

It is important to note that this framework was not meant specifically for BIPOC and other marginalized students. For example, while providing a college-going environment may influence some students to pursue postsecondary education, others may receive combatting messages. For example, students of color often face microaggressions within the school context that can decrease their academic efficacy and, subsequently, diminish their college aspirations. Additionally, the college and career exploration and selection process should provide BIPOC students with opportunities to learn about a variety of fields. Oftentimes, BIPOC children are exposed to careers by introducing them to White professionals. Ensuring that students are able to speak with individuals who look like them is important.

Needless to say, these components are best utilized within a culturally responsive, student-focused framework. The Asset Bundle Model (Johnson & Bozeman, 2012) offers an approach to recognizing the individual abilities and resources that students possess to help them succeed educationally and professionally. This theory is similar to the expansion of Conley’s college readiness model—when we take a comprehensive approach toward viewing students, we can better understand the assets that they already possess and can recommend resources that can help to build the other needed factors. Assets in this model include: educational endowments (e.g., GPA, course work, standardized testing opportunities), family expectations, college-going socialization (e.g. support from guidance counselors), financial/materials resources, and support from peer and family networks. When students develop their asset

bundles, their inequitable disadvantages due to social identities diminish. Hurtado and colleagues (2020) found that the use of asset bundles, which included Advanced Placement (AP) credit and Pell grant opportunities, predicted Latinx students' ability to navigate the college application process and heightened their chance of enrolling in a more selective college.

University-School Partnerships

Previous research noted the advantages of utilizing university-school partnerships in elementary school in order to accomplish the goal of increasing college readiness. While more evidence exists for the high school setting, this partnership is also beneficial for elementary school students. Thus, it is suggested that school districts work to build partnerships with universities in order to provide services to schools that serve BIPOC and marginalized students within the district. University-school partnerships boast several advantages, including the tradeoff of university students receiving clinical/research experience and elementary schools receiving free services for their students. For example, student practitioners (e.g., school counselors in training, school psychologists in training) have visited rural and urban elementary schools to work with students on their career planning (Knight, 2015).

Connecting careers with postsecondary education options provides students with an initial opportunity to talk about college. Depending on the student's grade-level, conversations can begin with various subjects. Examples include:

Developmentally Appropriate College Conversations	
Topics for Kindergarten Students	Topics for Third-Grade Students
<ul style="list-style-type: none"> Activities they like to engage in Connect activities to career choices 	<ul style="list-style-type: none"> Definition of <i>future</i> Connect career choices to the future (what it takes to obtain that career)

This option is especially advantageous for low-income schools where they may not have school counselors with the time to provide college-related messages to students.

Use of College Access and Readiness Data

This section synthesizes existing college access and readiness data indicators. Where possible these indicators are connected to BIPOC and marginalized populations. Academic and non-academic indicators are described. There is a need for more literature describing non-academic college access and readiness indicators for BIPOC and marginalized youth, especially at the elementary and middle school level.

Often, college access and readiness data are collected in high school to determine what types of interventions students need to keep students on the path to college. Data are then disaggregated by subgroups, including BIPOC youth, to analyze equitable opportunities and outcomes for all students. Some educators can see elementary and middle school as too early

to prepare students for college. Contrary to this point of view, there is also a K-12 approach to college access and readiness, where higher education is a focus much earlier than high school (Pulliam & Bartek, 2017; Mariani et al., 2016; Allensworth et al., 2014; and Gaertner & McClarty, 2015). By documenting how young people understand the preparation, opportunities, and aspirations toward higher education as early as possible, schools and districts can push for college access and readiness equity across the K-12 system, especially for BIPOC and marginalized students. It is also critical to use measures beyond academics to capture how K-12 students are given opportunities and prepared for college.

Elementary and Middle School Data. College readiness indicators and data connect to career aspirations in elementary school. A review of studies focused on college, and career interventions in elementary schools noted that career aspirations shape children’s mindsets early (Pulliam & Bartek, 2017). Cultivating career aspirations at an early age builds a foundation to discuss the college pathways that align with these careers. Another approach to measuring college and career readiness comes from a study that targeted K-5 diverse literacy learners and encouraged literacy strategies to meet college and career readiness standards such as the Common Core State Standards (Turner & Dandridge, 2014 and see Practices section for updates).

Common Core State Standards That Enhance College and Career Readiness for Diverse K-5 Students

- Demonstrate independent and engaged reading
- Build strong content knowledge
- Actively use literacy in responsive and purposeful ways
- Comprehend and critique texts
- Use evidence from multiple texts to strengthen argumentation
- Use technology and digital media strategically, and
- Demonstrate cross-cultural awareness and understanding

The literacy strategies included:

- Building community-oriented classrooms
- Supporting close readings of complex texts
- Orchestrating content-rich inquiries
- Enhancing cultural connectedness to texts

Developing indicators that measure the implementation of these strategies and the college and career readiness standards highlighted by Turner and Dandridge (2014) would enable elementary schools to assess students’ college and career readiness skills.

While academics are only one indicator of college access and preparation, they can signal students who need extra support. Allensworth et al. (2014) determined that academic middle

school indicators (grades 5-8), such as core GPA and attendance, were predictive of high school performance. Other middle school data and indicators included flagging students with a less than 80% attendance rate or a GPA of 1.0 or lower to provide extra support. Non-academic measures in middle school such as grit and study habits were not strongly predictive of high school performance (Allensworth et al., 2014). In contrast, motivation (such as locus of control, academic self-concept, effort, and postsecondary goals) and behavior (absences and suspensions, tardies, discipline referrals, and incomplete assignments) were predictive of college readiness and achievement (Gaertner & McClarty, 2015), as defined by high school grades and standardized test scores. When schools decide which middle school indicators to use, they can consider racial and cultural biases. Non-academic measures that account for student identities, competencies, and their sociocultural context can also prove informative when measuring college access and readiness. For example, a critical consciousness scale can measure youth's sociopolitical development (Diemer et al., 2017, Diemer et al., 2020). Youth engaged in critical consciousness raising activities like youth organizing have had increased college outcomes. Rogers and Terriquez (2013) found that youth organizing alumni were significantly more likely to attend a four-year college.

High School Data. Most of the college readiness indicators and data center on high schools. Allensworth et al. (2018) found that the most predictive early warning indicators for high school graduation included course grades, failures, and attendance and for college readiness indicators, course grades. Other college indicators highlighted for consideration included: coursework, learning skills and knowledge, test scores (predicts college access, but not college performance), and completion of milestones. The College Readiness Indicator System (CRIS) also measures college readiness and uses three areas to do so: academic preparedness, college knowledge, and academic tenacity (Borsato et al, 2013). While these indicators are not directly connected to BIPOC and marginalized youth, creating measures beyond high school graduation can help all students on the path to college.

Cross-Sector Data Collaborations. Cross-institutional college readiness indicators and collaborations also exist. Grady (2016) highlighted essential elements for cross-data collaboration. These elements included securing broad-based support, building a cross-sector data infrastructure, strengthening staff capacity to use data effectively, and forging partnerships with community organizations. The Long Beach Promise was a cross-institutional collaboration (school district, community college, four-year college, and the city) that also emphasized the need for a shared student-level data warehouse to assess and support students (Nodine et al., 2019). A second conceptual paper on data-driven decision making with an end goal of college readiness discussed a theory of action with three key steps: assembling high-quality raw data, conducting an analysis that ensures resulting data are relevant and diagnostic, and using relevant and diagnostic data to inform instructional and operational decisions (Gill et al., 2014). The paper also discusses data-driven decision making, the necessary organizational supports, and the type of data that each decision-maker would use (Gill et al., 2014). Lastly, a study of a district-level effort to promote college readiness indicators found that for the district to be successful, there needed to be leadership commitment, data infrastructure, the building of adult capacity around data use and college readiness, connecting indicators with supports to promote college readiness, and partnerships with community and higher education (Mac Iver et al., 2019).

In Summary

- Asset bundles take a comprehensive approach toward understanding students' strengths and areas for improvement. Doing so can help to tailor intervention plans and, subsequently, get them on the right track for college preparation and readiness.
- University-school partnerships boast several advantages for both the university and school setting. Schools are advantaged by receiving extra support in ensuring that their children are aware of college and have support to help them navigate college applications.
- While data systems capture students' skills regarding college readiness, there should also be data collected to reflect students' experiences, including structural barriers they may be facing related to college readiness.



Section 4. Conclusion and Recommendations

This literature review includes the most recent (2014-2021) research on college access and readiness with an emphasis on BIPOC and marginalized students. By examining systemic, structural, and programmatic barriers to college access and readiness, we found several barriers affecting BIPOC and marginalized students. On a hopeful note, we also found theories, approaches, and classroom, school, and district/system-wide practices promoting college access and readiness for BIPOC and marginalized students. We conclude by summarizing key findings and offering a few recommendations.

1. Failure to examine the educational system using a racialized lens can lead to deficit thinking, which can negatively impact BIPOC and marginalized students' prospects of becoming college ready. Critical Race Theory and Community Cultural Wealth Theory challenge inequitable outcomes for BIPOC students by centering their struggles as well as uplifting their own unique abilities. Too often, families of BIPOC students of color are framed in deficit ways when discussing education (Valencia, 1997, Bertrand et al., 2018, Reynolds et al. 2015). Acknowledging the existence of social capital and using an asset-based lens to explore community cultural wealth will highlight the ways the families and extended networks can benefit BIPOC students on their pathways to college.

2. Utilizing a sociocultural, sociopolitical, and racialized lens (e.g., CRT, Community Cultural Wealth) to examine identity, aspirations, and familial and communal assets for BIPOC and marginalized students will allow educators to better understand the challenges students of color face in obtaining the skills needed to become ready for college. Such challenges include access to academic resources and opportunities, stereotype threat, and others that can create barriers for marginalized students. Understanding these challenges and providing equitable solutions to combat them will ensure that children from marginalized backgrounds can pursue higher education and succeed in doing so.
3. BIPOC and marginalized students are not enrolling in and graduating from postsecondary education at the same rates as other students. We must consider ruptures in the postsecondary pipeline for these students. Important considerations for ruptures in the postsecondary pipeline include academic alignment for students, the connection of college match and fit to how minority-serving institutions have been mischaracterized, and how many BIPOC students live in areas with few college opportunities nearby. Understanding the causes and potential solutions for summer melt among BIPOC and marginalized students is also critical. It is important to note that the impact of COVID-19 has disproportionately affected BIPOC and marginalized students.
4. Many barriers for BIPOC and marginalized students exist in college access and readiness policies and practices. Many national policies exist to tackle educational inequities; however, progress has been stifled by the inability of current policies to explicitly address root problems. Looking at federal, state, and district policies can help illuminate what may and may not work in other settings. Policies that provide financial support and guidance to marginalized students can increase students' postsecondary education goals. Unique barriers for BIPOC and marginalized students include insufficient student-teacher relationships, cultural stereotypes/racism, lack of financial support and essentializing students.
5. Best practices exist that support equitable college access and readiness for BIPOC and marginalized students. At the school level and district/systems, culturally-relevant practices that foster positive student-teacher relationships, developmentally appropriate interventions, and rigorous and culturally relevant literacy instruction will help to increase BIPOC and marginalized students' readiness for college.

At the school-level, practices we accounted for different developmental periods, utilized multiple stakeholders (e.g., parents, teachers, administrators, community members) and took individualized approaches. While building academic skills in students is critical for college readiness, it is also important to focus on non-cognitive factors and critical consciousness. Little evidence exists on college readiness in younger students despite research noting the importance of instilling college self-efficacy in them. Additionally, more research is needed to understand specific strategies for different races/ethnicities. Regardless, it will be important for educators to take individualized culturally responsive approaches to helping students gain access to college.

For districts/systems, practices such as asset bundles take a comprehensive approach toward understanding students' strengths and areas for improvement. University-school partnerships boast several advantages for both the university and school setting. Lastly, while data systems capture students' skills regarding college readiness, data should also reflect students' experiences, including structural barriers they may be facing related to college readiness.

We suggest three key recommendations for educators, policymakers, and researchers:

1. Learn about theories and approaches such as CRT and CCW that help to understand the lived experiences of BIPOC and marginalized students. These theories are relevant for practice, policymaking, or research.
2. Understand unique aspects of ruptures in the postsecondary pipeline, as well as the systemic college readiness and access barriers for BIPOC and marginalized students that were presented in this literature review.
3. Review the best college access and readiness practices to see how they can be implemented and locally adapted in educational institutions, supported with equity-minded policies, and further studied in ways that center BIPOC and marginalized students.

In conclusion, we recommend educators, policy makers, and researchers to consider college access and readiness barriers and best practices for BIPOC and marginalized students that do not solely focus on academics and that are race-centered, critical, and asset-based approaches to college access and readiness.

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Appendix

We used the following search terms to identify an initial set of articles to review. These search terms include:

- College access AND equity
- College admissions AND equity
- College readiness AND equity
- College preparation AND equity
- College examinations AND equity
- Test preparation AND equity
- College persistence AND equity
- Postsecondary success OR postsecondary education AND equity
- Students of color OR minority students OR low income students OR underrepresented students OR urban students AND college access
- Students of color OR minority students OR low income students OR underrepresented students OR urban students AND college access
- College access OR college readiness OR college preparedness AND equity
- College readiness OR college preparedness AND equity
- College readiness or college preparedness AND racism
- College readiness or college preparedness or college access
- College access OR college readiness OR college preparedness AND funds of knowledge
- College access OR college readiness OR college preparedness AND high school
- Critiques of Conley college readiness framework
- Data teams AND college readiness
- Data-driven decision-making AND college readiness
- Targeted universalism
- Warm demander
- Warm demander AND college