

# Evaluation of the Virginia College Affordability Network (VCAN) program at Virginia State University and its influence on retention of Black Students who are Pell-Eligible

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## **Part One: Organizational Context**

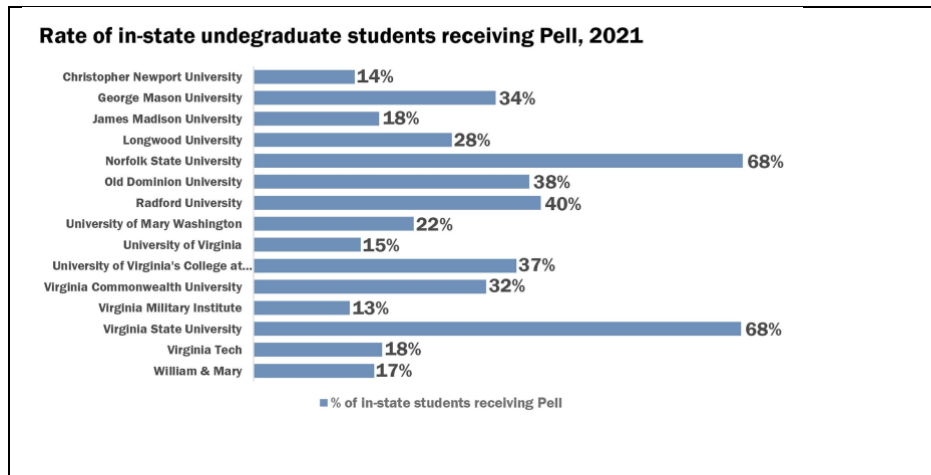
Virginia State University (VSU) is a public and historically Black-land grant University. VSU was founded on March 6, 1882, in Chesterfield County at Ettrick and remains one of the foremost four-year institutions of higher education for Black Americans in the Commonwealth of Virginia. VSU is one of the leaders in affordability and access, with the majority (on average approximately 70%) of its students being Pell-eligible. Financial hardship is the primary barrier to retention, persistence, and graduation. The Commonwealth of Virginia offers an essential and instructive case study in terms of state support for higher education resources for historically and systemically marginalized students—as the state has faced significant disparities related to student retention rates between Historically Black Colleges and Universities (HBCUs) and Predominantly White Institutions (PWIs).

### **State Council of Higher Education**

According to the State Council for Higher Education of Virginia (SCHEV), the retention rates at PWIs like the University of Virginia (UVA) are exceptionally high for Pell-eligible Black students compared to HBCUs like Virginia State University (VSU). However, while nearly three-fourths of students at VSU receive Pell Grants, highly resourced institutions like UVA utilize a massive endowment to provide financial aid and lower the cost for their undergraduate students, of whom fewer than one in seven receive Pell Grants (Figure 1). The state average for enrolled Pell-eligible students at Virginia public four-year universities is currently at 26%. In comparison, at VSU, the average number of students receiving Pell Grants is 68%. Most students at VSU face fragile financial situations, likely impacting their ability to finish their undergraduate

degree in six years.

Figure 1: Rate of in-state undergraduate students receiving Pell



### Leadership at Virginia State University

VSU operates under a shared governance system with faculty, administering staff, and students as part of the University Council, Faculty Senate, and Student Government Association. While the Board of Visitors is the governing body of Virginia State University, the university president steers the University's focus. Dr. Makola M. Abdullah currently serves as the President of VSU. He is determined and committed to improving VSU's retention rates. In our initial visit to VSU, the President noted that financial fragility was a concern for many students at VSU. Preside Abdullah stated that even if college is free, you cannot make life accessible. Many students attending VSU face fragile financial situations where life situations such as a car repair a student may jeopardize a student's ability to attend college. To support its students, VSU sought to address the regional needs relating to retention by creating the Virginia College Affordability Network (VCAN). The VCAN program is designed to provide access for Pell-eligible high school students in the areas surrounding VSU, including Matoaca, Petersburg, and Colonial Heights high schools.

## **Virginia College Affordability Network**

VCAN enables qualifying students to receive full tuition coverage and, in some cases, free room and board. To qualify for VCAN, students should be eligible for the Pell Grant, meet the university admission specifications, and live within a 45-mile radius of the University. These requirements target students who want to attend a four-year university directly but lack the financial resources to complete this commitment. If a student meets the minimum cumulative GPA needed, the funding continues into their senior year.

The VCAN program is significant because it offers free tuition with varying amounts of financial support for room and board to graduating high school seniors. The program creates direct access to a four-year university without fear of continued debt or inaccessibility to a four-year degree. Unlike the traditional pathway through a community college, this initiative directly impacts high school graduates and supports families with financial barriers and resources.

In its third year, VCAN targets 275 new students yearly. The program currently supports 825 students. Dr. July P. Coleman, director of VCAN program initiatives at VSU, is committed to the President's vision of retention rates and facilitates ways to improve students' experiences with VCAN at VSU. Staff within the VCAN program takes a holistic approach to supporting Black students who are Pell-Eligible by using five key tenants, which include a robust set of on-campus resources, regular personalized check-in meetings with VCAN staff, ongoing connections to various mentorships, well-designed engagement in a community, and participation in VCAN-sponsored activities.

## **Positionality Statement**

Our evaluation team comprises three members, and we want to acknowledge that none are Black. Beth's ethnic background is white, and she grew up in Norfolk, Virginia, and is somewhat familiar with the region where VSU is located. She is a principal in North Carolina, a school with many economically disadvantaged students. Nevertheless, she does not share the racial background of the students who study this evaluation.

Both Babu and Atif originally came from the South Asian region. Babu lives in Memphis, Tennessee, and as an immigrant, he has faced challenges in overcoming systemic barriers to attaining his educational and economic dreams in the United States of America. Atif is also an immigrant who currently resides in Virginia. He went through various experiences in his career and progressed to Secretary of Education in Virginia. Atif worked closely with many HBCUs, including VSU, and with his expertise in the education industry, he better understands the historical and cultural context of HBCUs.

Though we clearly understand and acknowledge that we as evaluators do realize that not sharing the racial background in many cases acts as a barrier to fully grasping the challenges faced by Black students at VSU, our various experiences combined, we aimed to provide the economically disadvantaged of this ethnic group and their struggles better, here, in this case, Black students who are Pell-eligible that we analyzed. We also find that our different cultures and ethnic diversity are advantageous in a way that allows us to provide a more profound and different angle to provide recommendations to the administrators for improving student experiences at VSU.

## **Part Two: Problem of Practice**

Nationwide, college students enter four-year degree programs with high hopes of improving their lives by earning a degree. Unexpected difficulties in financial stability make obtaining a degree challenging and threaten many enrolled students' ability to complete degree aspirations. Finding the root cause of dropping and addressing those challenges of student retention is one of many ways for higher education institutions to achieve tremendous student success. As college education needs investment, financials remain one of the top reasons college students face when it comes to enrollment choices. According to the National Center for Education Statistics, on average, it costs \$15,200 (minus the grants and scholarship aids) to attend public universities and more if boarding and lodging are included (NCES, 2024). Also, recent research studies affirm that Black students are more likely to drop out of college, citing lower academic abilities due to the unavailability of socioeconomic resources (Aina et al., 2022; Ciocca & DiPrete, 2018). More specifically, HBCUs (Historically Black Colleges and Universities) face the daunting task of retaining students as economically disadvantaged students depend on Pell grants.

Historically, Black colleges and universities have played significant roles in the nation's development for decades. As they have evolved to reflect the social and economic trends, the canon of literature and research on HBCUs remains relatively meager yet ripe with untouched opportunities (Nguyen, 2018). The primary mission of HBCUs, including VSU, is to provide education to those who would not usually have college access, which has led to considerable socioeconomic diversity among HBCU (Historically Black Colleges and Universities) students (Lee, 2015). One of the ways to measure socioeconomic diversity is to look at the number of students receiving federal



Pell grants and student loans. Much research has been done on how socioeconomic statuses impact student retention in undergraduate programs. However, more needs to be done to understand the challenges Black students face, specifically those who are Pell-eligible. The largest concentration of Black students who are Pell-eligible is at Historically Black Colleges and Universities (HBCUs) (Mfume, 2015). Black Pell-eligible students have a more challenging time staying in their undergraduate programs even if they attend HBCUs. These students face financial challenges often overlooked in institutional performance evaluations in retaining students.

How institutions factor in student characteristics when it comes to retention is traditionally excluded in most measures of institutional performance (Nahal et al., 2015). HBCUs are more likely to use holistic and innovative approaches to address student retention for Blacks who are Pell-eligible compared to other higher education institutions (Farmer et al., 2016). Our team focused on how VSU serves the most economically disadvantaged region and students in Virginia of Petersburg and Colonial Heights. These cities are the poorest in the state, lack adequate health systems, and are considered childcare and food deserts (Masters, 2022). VSU embraces the students coming from these circumstances and supports their undergraduate journey. Therefore, VSU, like many HBCUs, serves as an excellent place to evaluate what strategies are working to increase retention of Black students who are Pell-eligible.

The availability of resources to students from higher education institutions also impacts student retention. Many institutions, such as VSU, offer reasonable student assistance for their VCAN program. However, the effectiveness of such programs varies if students are unaware of the resources available to them or not encouraged enough to

utilize them effectively. In either case, the efficacy of intended programs diminishes over time, and students will eventually miss out on an institution's help. Students can only benefit from an institution's resources if the administrative staff is adequate and can market those resources effectively through various methods such as guidance counseling and accessible staff for answering student concerns. To maximize the benefits, the strategies deployed should be simple and effective for students, as student resources play a vital role in student retention.

It's not uncommon for students to doubt themselves entering college. However, some let these feelings rankle, reducing their confidence. When left alone and not addressed by institutions, such negative thoughts will soon put students at risk of attrition. Willging & Johnson point out that understanding the sequence of events before a student's decision to drop out is vital for retention (2019). Engagement with students becomes essential for institutions and is a considerable factor in impacting student retention (Whitt et al., 2005). Well-trained and highly qualified advising staff at higher educational institutions are needed to improve the ability to support students with social-emotional needs surrounding confidence. Financial security remains a prevalent concern for some students, promoting stress while considering continuing academic goals. Lack of resources and financial support ultimately terminates a student's ability to obtain a degree from a four-year university.

Many research studies have demonstrated that institutions retaining existing students are more cost-effective than recruiting new or replacing them (McGinity, 1989; Pascarella & Terenzini, 2005). For institutions to be effective and realize their vision or mission, retention must be viewed as a shared responsibility needing everyone's

participation and contributions. VSU currently has a retention rate of 37%, the lowest of any public four-year university in the Commonwealth of Virginia (Graduation rates, n.d.). VCAN has completed three full years and explicitly supports Pell-eligible students within a 45-mile radius of VSU. VCAN offers full tuition coverage but not necessarily room and board. To further assess the impact of the resources provided within the VCAN program, we examined:

- Exposure to on-campus resources
- Personalized check-in meetings with the VCAN Staff
- Connections to various mentorships
- Engagement in a community with others
- Participation in VCAN-sponsored activities

According to the VCAN program administrators at VSU, retention rates of Black students who are Pell-eligible to Non-VCAN Black students who are Pell-eligible were significantly better because of the tenants of the program. Our evaluation showed that the abovementioned strategies are working; however, VCAN still needs more financial resources to scale staff and enhance these strategies. Furthermore, the state needs to expand the financial assistance component. VCAN students in years one and two had tuition, room and board, and meals covered. Including VSU, most institutions operate in a broader political context, within which institutions operate with state policies that provide guidelines on retentions that impact or limit the institutional ability to obtain more funds.

### **Part Three: Literature Review**

Colleges and universities comprise a network of students, faculties, communities, and various administrative departments that work together to fulfill their mission of education (Gumport, 2012). Though collectively working towards their mission, universities' tuition prices and financial aid packages or grants impact student enrollment decisions and eventually impact higher educational institutions reaching their missions (Langelett et al., 2016). Access to financial aid and grants improves student enrollment, retention, and graduation rates. Successful students graduating on time seamlessly transition between jobs, move to new neighborhoods, contribute to the national economy, and are more likely to give back to their communities and institutions. While at college, when students get better access to financial sources for education, their parents can also afford to supplement their children's education, resulting in the ability to build economic sustainability during retirement. Specifically, it is the most complete measure of a family's future financial well-being (Hanks et al., 2018). While uncertainty permeates all aspects of higher education, institutions face daunting challenges in increasing retention, enrollment, and graduation rates. Various reasons, including declining registrations, lack of student services, competition from online-based low-cost alternatives, increased tuition and other fees, and scarce financial aid, significantly influenced student decisions to enroll in higher education (Mazhari & Atherton, 2020). The different environmental factors, such as financial aid and future employment opportunities, impact student retention and sustainment (Torres et al., 2010). Moreover, researchers point out that time availability or time devoted to study as students have to work to finance their degree program is correlated to student performance at institutions (Aina et al., 2023).

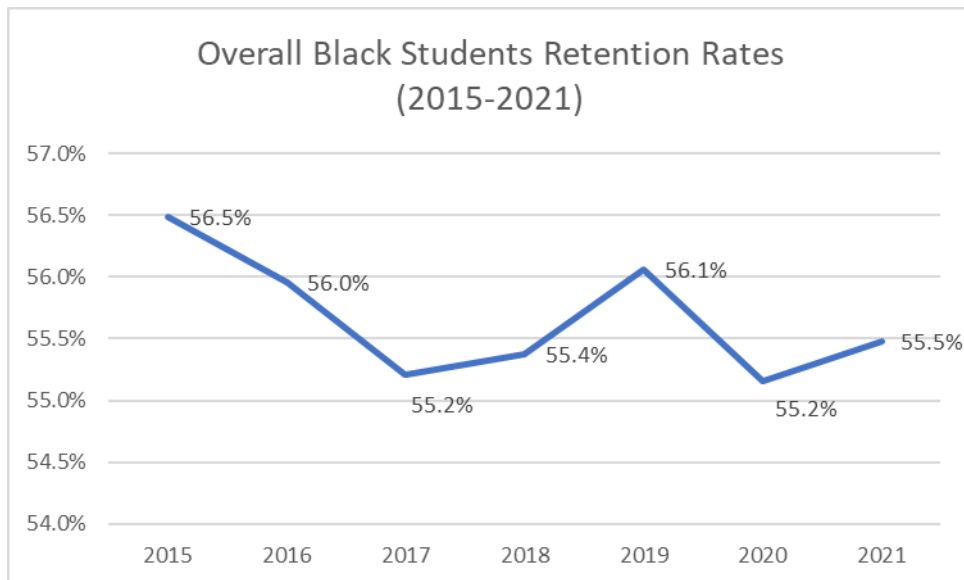
### **Historically Black Colleges and Universities (HBCUs)**

Collective work and responsibility were part of the seven or "nguzo saba" core variables of the Kawaita theoretical paradigm (Conyers, 2015). Kawaita's paradigm is primarily based on social and cultural changes that African Americans identify and reconstruct their true selves (Archibald & Street, 2017). Education is a necessity for success in the lives of all students, but most essentially in the lives of Black Americans who are not provided with the same access to opportunities as their counterparts. Economically disadvantaged students often enter colleges less academically prepared than their economically advantaged peers, with troubling implications for racial achievement gaps (Richards & Awokoya, 2012). HBCUs support Black culture, opportunity, and community and perpetuated leadership. Additionally, HBCUs have produced many successful leaders in all areas, supporting the country's growth and prosperity (Ingram et al., 2015).

Because VSU is an HBCU and HBCUs are "historically Black," it is a general presumption that VSU has served only Black students and continues to serve only Black students. Table 4 shows that VSU enrollment includes nonblack student enrollments in 2022 at approximately 5%. According to the National Center for Education Statistics (NCED, 2023), in 2022, 99 HBCUs were in 19 states. As shown in Table 4, VSU stands at 11 for enrolling Black students, but its position changes to 25 regarding degrees conferred. Further, the NCED states that Black enrollment at HBCUs fluctuated between 1976 and 2022, and the aggregate number of Black students enrolled in all degree-granting higher learning institutions (including HBCUs and non-HBCUs) was more significant than twice as high in 2022. Also, A recent study by the National Student Clearinghouse, a non-profit that works with policymakers and institutions, provides critical data points on ethnicity-based retention

rates (NSC, 2023). According to NSC, retention rate trends nationally since 2016 (Data from NSC is in the Appendix section Table 5 and represented in graphical form in Figure 2 below.

Figure 2: Overall Retention Rates of Black Students (2015-2021)



While there is much conversation over the graduation rate of HBCUs, it is essential to note a few statistics that impact the data surrounding graduation rates. Richards and Awokoya note:

- In 2009, HBCUs enrolled more than 320,000 students of diverse racial and ethnic backgrounds. Compared with predominantly white colleges and universities, HBCUs graduate a disproportionate number of black graduates each year.
- While HBCUs account for only three percent of two-year and four-year public and private higher education institutions, they produce more than ten percent of all Black students earning a bachelor's degree (2012).

## **On Campus Resources**

Context, community, and resource availability are a few factors that influence a program's impact as per Social Learning Theory (SLT) (Hill et al., 2007). HBCU presidents often want to expose students to new ideas and people from different cultures (Nguyen, 2018). However, resources and support are usually insufficient for a program like VCAN. (Hill, Domizi, et al., 2007). As the current VSU president is committed to improving retention rates, advisors at VSU are using intrusive advising methods to work with the whole student body by completing personalized check-in meetings before experiencing pitfalls to help students systematically succeed. Advising students at critical moments during the academic semester supports higher retention rates, students achieving honors lists, and, ultimately, significant educational gains (Johnson et al., 2018). Advisors conducting check-in meetings must be skilled at listening, building relationships, and giving directives in the best interest of the students. The success of the advisor and whether the advice was considered directly depended on the amount of time and interest that the advisor created (Leon-Sullivan, 2021).

Many research studies highlight that students' active participation in campus activities improves their sense of belonging as a community in the institution, and they are more likely to stay enrolled (Elkins et al., 2000). As the university systems are unique to the context and environment in which they operate, the relationship to the retention of students depends on the availability of resources and how well they utilize them (Aina et al., 2023). The literature reviewed on university resources and utilization of resources demonstrates that effective collaboration between students and staff improves students' confidence in realizing their dreams of earning a degree. For institutions, maximizing the utilization of available resources improves retention rates by reducing attrition rates.

## **Personalized Check-ins**

Students often make optimal decisions when fully informed about all relevant options. The interaction between students and institutions has a higher impact on student decisions to persist in the institution. Many research studies show that students who experienced positive interactions were more likely to experience a greater sense of belonging, as the cloverleaf between students and institutional qualities shapes student decisions and achievements (Aina et al., 2023; Locks et al., 2008). By creating programs to support students of first-generation and underrepresented students, successful programs help level the playing field for students. (Perna, 2015). Programs that develop tenants of support, like VCAN, provide check-in meetings and mentorships and establish a sense of belonging and purpose, positively increasing student outcomes and college retention. Specifically, providing a trusted advisor allows Black students to learn about college expectations and unspoken norms and rules that may differ from those at home (Irlbeck et al., 2014). Building a relationship between students and administrative staff at higher education institutions is paramount to students. Research shows that high expectations and access to caring and knowledgeable administrative staff are critical precursors to their academic achievement in high school and subsequent college years' educational journey (Gumport, 2012).

Furthermore, knowing where and how to obtain academic, social, and financial support within an institution is daunting, suggesting many resources that may be provided are hidden, impersonal, or unobtainable due to the paperwork or the staff seeming annoyed. Adjusting to the hidden expectations of navigating more prominent college and university academics, many first-generation Black students must find smaller spaces and resources to study and seek support (Richardson & Skinner, 1992).



## Participation in Sponsored Activities

As the VCAN program at VSU depends on student participation, we looked at supporting shreds of evidence from prior literature. Support groups focusing on classwork preparation, assignment feedback, studying for tests, and interpreting reading resources all provide a unique and supportive atmosphere shaping the success of first-generation and Black students entering a larger university setting (Richardson & Skinner, 1992). Additionally, participation in student organizations and study groups at the college level helps students enhance adjustment and achievement by providing Black students with space to develop secure relationships while creating a sense of belonging on campus, further enhancing their academic performance (Brooms, 2018).

An individual's self-efficacy, motivation, and metacognitive skills are vital in students' learning experiences (Song et al., 2004). Knowledge is constructed when individuals engage in activities and interact with others (Henning, 2004). There is a correlation between student participation in on-campus activities and academic progress (Fredricks & Eccles, 2006). As these research studies strongly point out, for any program to succeed, student participation and involvement in institutions that provide more opportunities for their students to be integrated into institutional culture are more likely to retain them until graduation. The concept of participation and support from institutions has been previously introduced. In a research study, Astin (1972) stated that student involvement was the most affected factor in retention and persistence in academic environments. Blum and Spangehl outlined that all college students, specifically high-risk students, need a support system to help them persist until graduation (1982). Tinto further specified that students cannot develop a sense of belonging if they do not take up the opportunities to interact (1987).

## **Connections to Internships and Mentorships**

Part of the support programming essential for learners is opportunities available from institutions. Institutions have connections with local businesses, agencies, alumni, schools, and companies to help students find internships. By partnering students with formal internship training, students gain an increased knowledge base, supporting confidence and growth in navigating their chosen study area. The partnerships with the supporting mentors in the internship create self-efficacy for the participating students. Mentees also receive guidance, support, and direction, fostering a sense of confidence and success that may lead to long-term employment in the future (Rohatinsky et al., 2020).

Research indicates a lack of mentorship programs correlates to institution retention rates (Wilbank, 2013). Mentorships integrate students into the context of academic lives, develop connections within communities, help them to develop their skills, and, more importantly, orientate students to new environments (Young, 2020; Pickenpaugh et al., 2021). If designed and rolled out effectively, mentorship programs improve students' sense of belonging and resilience, an essential part of student success and increasing resilience (Tsang, 2020). Hence, internships and mentorship programs must focus on responsive and redesigned practices and policies—prioritizing today's incoming students' social realities and covering the latest strategies for connecting with learners to foster equity and success. Colleges should leverage existing resources and deliver the proper support at the right time to achieve equity in student outcomes; design partnerships and support programs that enhance the relationships between the institution and students; bolster the institutional capacity-building for achieving defined student-ready goals; and construct a shared governance model to foster change and collaboration (Brown et al., 2016).

## Community Engagement

McMillan and Chavis' sense of community theory, based on elements that work together to constitute the experience of the sense of community, indicates that community members develop a deeper bond as they spend more time together and share experiences (McMillan & Chavis, 1986). Their theory's conceptual framework had four elements – membership in a community, influence of its members, fulfillment of member needs, and shared emotional connection within a community – to define the sense of community as a feeling or sense of belonging a community's members have with which, as a group, they fulfill their needs. At VSU, community-based learning is vital in learning about opportunities and the VCAN program from fellow students and mentors. Constructing knowledge and sharing experience is core to Social Learning Theory (SLT), which enables learners to create and share knowledge (Bandura & Ross, 1961). Several factors influence social learning from social learning perspectives: context, culture, and community, as well as learner characteristics (Hill et al. 2009). Knowledge is constructed from a social perspective when individuals are engaged in activities, receive constructive feedback, and participate actively in human interactions (Henning, 2004). Another aspect of social learning theory is the modeling technique, which provides a pattern and observes behavior. The expectation of the modeling technique is that student perceptions about the subject might change. Many researchers have identified a correlation between student perceptions of community and perceived learning (Hill et al., 2007). Additionally, a sense of community on campus, such as community experiences, academic performances, and perceptions, outpaces all other factors that contribute positively to retention rates at higher education institutions, according to various research studies (Boyd et al., 2020; Gopalan et al., 2019; Murphy et al., 2020).

## **Financial Support**

Various research studies indicate that student demographics such as age, ethnicity, and family financials play a vital role in dropping out (Barbatis, 2010; Kracher, 2009). Further, students' early academic achievements, such as high school GPA and SAT/ACT scores, are impactful predictors of retention, especially for Black students in undergraduate programs (Henderson et al., 2016; Premraj et al., 2021). Research focusing on the retention of Black students shows that students who carry a full college workload and maintain a successful grade point average (GPA) are more likely to continue through college. Contrary to the traditional predictors of SAT and ACT scores, GPA at the end of the first semester of the first year is the most significant predictor of retention for Black students in undergraduate programs (Farmer et al., 2016). This information further supports the need for wraparound services to support the growth and retention of Black students in undergraduate programs at VSU.

According to the Commonwealth Institute, per-pupil funding was cut by 22.5% between 2008 and 2016. Cuts specifically have impacted the HBCUs (Commonwealth Institute, 2016). The effects of 2011 Congressional changes to the Pell Grant reduced the available number of semesters covered from 18 to 12. Based on the data from 1996-2003, the study suggests a 13% reduction in college graduation rate. Moreover, there is a massive concern that students needing the most remedial classes to support matriculation will no longer be able to take the supporting courses to assist with the classwork because of the decrease in the number of semesters covered by the grant (Hicks et al., 2014).

Pell Grants help narrow the achievement gap between economically disadvantaged and affluent students as they improve college enrollment and reduce dropout rates. Pell provides

exigency-based grants to undergraduate students who have yet to earn a bachelor's degree, and compared to other loans, students are not obligated to repay them. A research study found that increasing the Pell Grant would increase low-income students' college retention and enrollment rates (Protopsaltis & Parrott, 2017). Another study looks beyond the traditional factors, such as economic reasons for retaining Pell-eligible students, highlighting that Pell-eligible students are 24% more unlikely to graduate within six years than those who did not receive grants (Yang & Mao, 2021). Furthermore, students receiving Pell Grant support were further impacted when changes were made to the federal program. Many students lost their funding within one to two semesters of graduation, lowered the threshold for income qualification, and eliminated summer school.

Furthermore, the funding provided by the Pell Grant substantially declined from 84% of the average cost of attending a four-year university in the 1970s to 34% in the 1990s. Today, Pell Grants cover comparatively less of the average tuition, fees, room, and board costs at public four-year colleges, far below the average costs covered a decade ago (Protopsaltis & Parrott, 2017). Moreover, there is a considerable concern that students needing the most remedial classes to improve their grades will no longer be able to take the supporting courses to assist with the classwork because of the decrease in the number of semesters covered by the grant (Hicks et al., 2014).

The types of financial aid and options available at institutions affect student retention (Kerkvliet & Nowell, 2005). Students attending HBCUs face unique financial challenges that have often been overlooked in evaluations of institutional performance in retaining students. Assessment of institutional performance should account for factors--namely, student characteristics, given their strong association with student outcomes related to persistence

and retention--that are traditionally excluded in most measures of institutional performance (Nahal et al., 2015). An area underexplored is how working while in college influences students' experiences. Further research, however, can and should explore how public and institutional policymakers can promote the educational success of undergraduate students who work. College costs often increase as students progress through their degrees, further exacerbating their financial needs. Students might work more to cover expenses, distracting them from their studies (Perna, 2010).

While the Pell Grant is necessary for students to access college programs, improving college access and success also relies upon support programming for first-generation and underrepresented students—access to understanding college-related requirements and processes involved in navigating college expectations. Likewise, students with low socioeconomic backgrounds often must work to support themselves or their families while in school. Low-income students are more likely to find work as an alternative to fund their studies or adjust the gap between financial aid and tuition, as their families cannot help them financially (Scott-Clayton, 2012). Because of their need to work, students in this economic situation usually take fewer credit hours to pursue full-time employment. The reduced time spent on coursework slows their progress in completing their degree aspirations (Richards & Awokoya, 2012). Further, it helps us address our main evaluation question: To what extent does the VCAN program influence the retention of Black students who are Pell-eligible?

## **Part Four: Conceptual Framework**

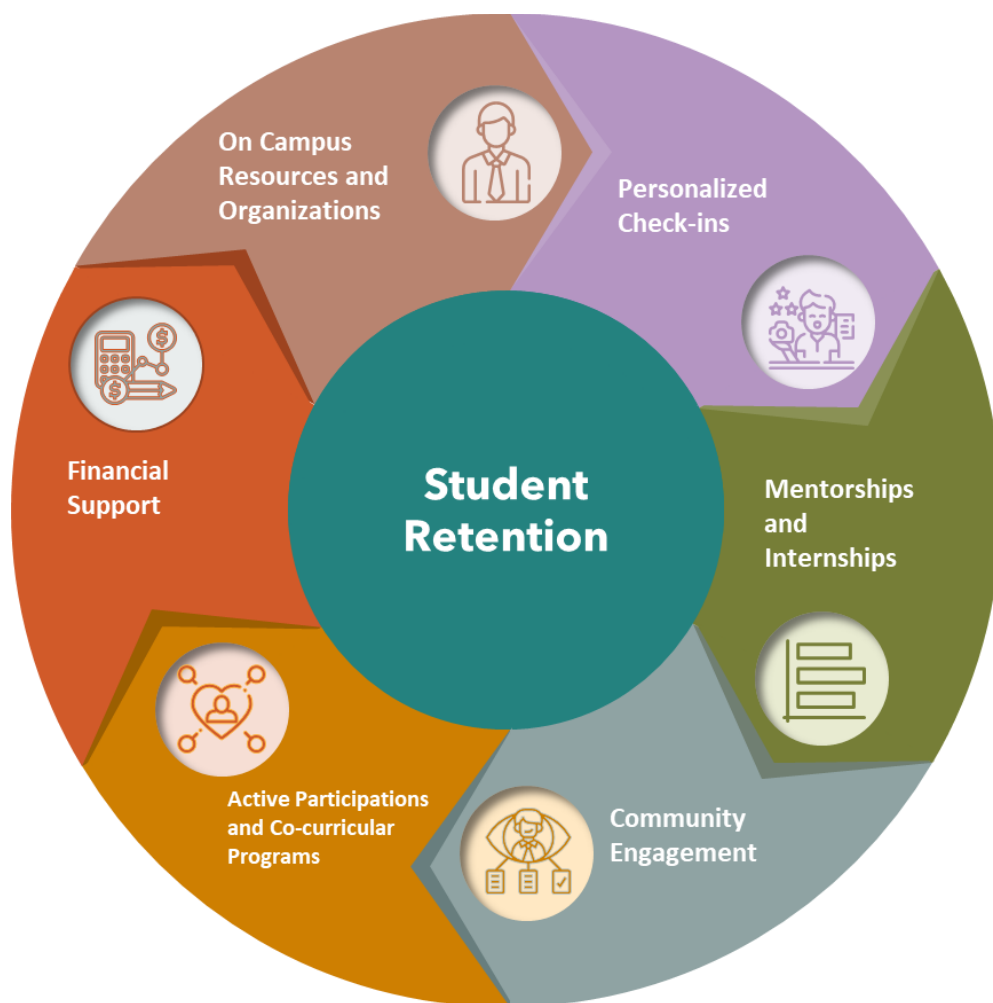
Social Learning Theory (SLT), proposed by Albert Bandura, posits that people learn through observing, imitating, and modeling others' behavior (Bandura, 1977). This theory posits that we can acquire new behaviors and knowledge by watching others, a process known as vicarious learning (Bandura & Ross, 1961). As Bandura's theoretical framework explains, paying attention to participant behaviors and practicing and refining behaviors until the observer can perform the task and can be performed repeatedly with motivation to perfection. The SLT encompasses attention, memory, and motivation and suggests that through behavioral observations, people learn through assimilation or intimation (Nabavi, 2012). Adopting Bandura's social learning framework, social learning occurs when demonstrating a change in understanding taking place among individuals or an individual situated within wider communities of practice (Reed et al., 2010).

Adopting SLT is relevant to student retention because to increase student retention, students need robust on-campus activities, personalized check-ins, mentorships, engagement in a community, and ongoing participation in activities where there are opportunities for students to learn from peers and administrators about rules and financial support. When students learn based on other successful students, they get motivated to repeat or mimic them. With the Social Learning Theory as a base concept, we developed a conceptual framework to address our research objectives. The conceptual framework (Figure 3) was designed with the VCAN program's main pillars in mind:

- On-campus resources and organization
- Personalized check-ins
- Mentorship and Internships

- Community engagement
- Active student participation
- Financial Support

Figure 3: Conceptual Framework





## **Part Five: Project Question and Design**

To what extent does the VCAN program at VSU influence the retention of Black students? Using information gathered from interviews and data compiled from VSU, we compared VCAN students to non-VCAN students at VSU to examine differences in retention. The primary data source for evaluation is SCHEV (State Council of Higher Education of Virginia) to clarify statistical information about students within the VCAN program.

Interviews with students and staff will provide a more personalized account of how the VCAN program supports students within the program, comparing their experience with the five components of the VCAN support program. This evaluation can provide some timely, preliminary evidence for VSU leadership and state policymakers from independent, third-party, formative feedback on the policies and set the stage for more rigorous studies in the future. Such preliminary evidence can also be critical for policymakers to decide whether to expand the policies or make amendments. We relied on SCHEV (State Council of Higher Education of Virginia) to clarify the statistical information about students within the VCAN program. We conducted interviews with students and administrators to support a more personalized account of how the VCAN program supports students within the program, comparing their experience with the fundamental tenets of the VCAN program. Our tools for data collection encompassed developing questionnaires, observations, maintenance of logs, forming a focus group (black students within the Pell-eligible community of the VCAN program), gathering qualitative data, and coding.

## Data Collection

We wanted to understand the impact of VCAN on the retention rates of Black students who are Pell-eligible at VSU. We compared student retention rates of Black students who are Pell-eligible to Non-VCAN Black students who are Pell-eligible. Additionally, we interviewed thirty-three VCAN students to highlight the importance of programs like VCAN that attempt to make students succeed in their journey through their undergraduate programs. Our interview questions for students and administrators were based on conceptual design. Because VCAN is the subject of our evaluation, we focused on the components which included:

- On-campus resources
- Check-in meetings with the VCAN staff
- Mentorships provided through VCAN
- Engagement in a community with other VCAN students
- Experiences participating in VCAN-sponsored activities

Using the same evaluation components listed above, we also interviewed three key administrators at VSU to evaluate the Black student experience with VCAN. The administrators included the President of VSU, Dr. Makola Abdullah; Vice Provost for Enrollment Management, Dr. Alexis Brooks-Walter; and Director of VCAN and Strategic Initiatives, Dr. July Coleman.

To conduct the evaluation, we initially sent out a survey to collect baseline student data. The data verified that all students we would interview were Black students who are part of VCAN. About 275 students are admitted to VCAN each year. Since the program began three years back, there have been approximately 825 students. However, we learned from the

administrators that a handful of seniors are also part of VCAN because, in the first year of the program 2021-22, not enough freshmen at that time had enrolled, so VSU expanded some spots to sophomores 2021-22 who are now seniors in 2023-24.

To gather a good sample, we conducted twenty-three interviews with a good representation of various years at college levels, i.e., first-year students, sophomores, juniors, and seniors. We conducted all twenty-three interviews in person at VSU on the same date. We interviewed the administrators right before interviewing the students to help frame the nuances of VCAN. We also interviewed Dr. Abdullah, the President of VSU, who is the ultimate decision maker in budgetary policy decisions at VSU, to further frame an understanding of resources for VCAN and to help determine his perception of program evaluation and if it demonstrates requesting more funding will be necessary to positively impact retention of Black students who are Pell-eligible.

This study utilized full-time college students enrolled at Virginia State University and are beneficiaries or have had an impact due to the VCAN program. These diverse first-year students were residential and non-residential, from different regional campuses within Virginia State University (VSU), located in Chesterfield County at Ettrick in Virginia. The participant pool was selected from general education core class lists using a cluster sampling method based on random sampling when selecting students from first-year students to seniors. The selection generally included four to five students from each year, enhancing participation diversity. A generic flier was posted by VSU administrators at the college campuses, encouraging student participation, explaining the research project, and asking for student cooperation. All those students who agreed to participate in this study decided to do so and provided their inputs to the set of questions by the project research team. Upon

approval, the research team met with the students, asked them to voluntarily participate, and assured them of confidentiality. Students were asked to complete the agreement Sheet so that comparisons could be made between student demographics and college years of those who participated. Thirty-three students were contacted, and twenty-three agreed and participated, reflecting a 70% participation rate. Qualitative analysis of these twenty-three cases indicated that sampling was performed to the point of redundancy (Patton, 1990) and saturation (Creswell, 1998).

To conceptualize and operationalize the variables for this study, the conceptual research model outlined the variables. The conceptual framing is used as a reference in developing interview questions that helped to narrow down the supporting answers to the main research question of this study. A grounded theory approach of constructing theory from data was adopted to analyze data collected from the interviews (Strauss, 1987).

## **Data Analysis**

An email was sent to college administrators at their college email addresses with a subject line that read: "Student participation for researching the impact of VCAN program." The email contained various questions (provided in the Appendix), primarily focused on our research intention, and indicated that the research team would follow up with a phone call to coordinate the in-person interviews in a few days. In-person interviews were selected as the method of choice for student participants. The research team assured the participants that their responses would be anonymous. Upon completion of the interviews, personal identifiers were carefully removed before coding the collected data. The interviews started with a short explanation of the research study's purpose, which had already been communicated to the participants. Also, informed consent was obtained verbally after the primary designated researchers read a consent script. The participants were told their names, and all identifying information would be included. They were encouraged to ask questions about the study. Participants expressed a good discernment of the importance of the research and readily gave their verbal consent. Table 2 and associated graphical visualizations (Figure 5, Figure 6, Figure 7, Figure 8 and Figure 9) are in the Appendix section, which provides the demographics and participation of the survey participants.

Participants were interviewed using a structured, open-ended questionnaire to ask the same questions to every participant, paying close attention to their responses. The research team also created sub-questions, such as probing like "Please elaborate" and "Provide an example," which helped the project team get in-depth information. Each interview with the students ranged from 10 to 15 minutes and concluded with obtaining demographic questions. The validity of the questions solely rested upon the project team experience, doctoral senior

students at Vanderbilt Peabody College, knowledge of the research team on qualitative study, literature reviews, and feedback from college administrators. To develop core categories and themes, the research team analyzed the data using the line-by-line open coding methods and selective coding of organizing codes into categories (Creswell, 1998). The interviews were recorded using the online Zoom tool to help researchers document the verbatim after completion. The project team noted that interviewing more cases would probably not have added insights.

Data analysis began simultaneously by reviewing the quality of transcripts and adapting them to capture categories from student responses to derive conclusions and recommendations based on the themes that emerged from the data. Of the student participants, 70% were Female and 30% Male. Most were Black students at Virginia State University (96%), and one identified as White with differently abled learning). Student participants ranged from 22% in their first year, 30% in their Sophomore year, 35% in their Junior year, and 13% of the participants were in the Final year of their journey to a degree (details in Appendix section).

### **Data Collection and Analysis Report**

From the interviews conducted, the student and administrative participants from the VSU on the effectiveness of the VCAN program revealed some valuable information based on which two significant themes emerged – the VCAN program's effectiveness and the VCAN program's impact. These two themes will be fully explained using in-depth quotes from the participants. The number of students interviewed is listed in Table 2 of the Appendix section, and the student number is referred to in the below sections to maintain anonymity.

## Effectiveness of the VCAN Program

Virginia State University shepherded the Virginia College Affordability Network (VCAN) initiative. It provides Pell-eligible students with free tuition access. This opportunity is for students who graduate from a high school within a 45-mile radius of its campus and desire access to VSU, which can provide a quality education and experience. As part of the VCAN Scholars Program, qualified students are placed in a signature experience program for first-year students who want to transition from high school to VSU. The VCAN program provides various opportunities, including discovering resources, defining student success, developing academic progress, and delivering a sense of leadership. A significant finding of this study is that the majority of the students surveyed (n=19, 82%) applauded their support of the VCAN program as it provided them with much-needed "exposure" to on-campus resources, participants felt very "connected" with the resource staff, they felt "encouraged" to participate on various activities as part of the VCAN initiatives and are very "engaged" as a community. On the VCAN initiatives, one of the students (#6) in the senior year mentioned about how effective the VCAN program is:

"The support staff are very committed to our success. The support staff are available and able to answer all our questions. Check-in meetings are more effective. For example, study guides at the administrator's offices can help us quickly improve our skills. As a senior-year student, I provide mentors to first-year students. As a community, we are engaged and connected."

For most student participants, internship programs are more attractive, and the VCAN program helps them as a community to learn and grow. Students help each other in finding opportunities. A student (#15) highlighted the impact of the VCAN program as:

"On-campus programs help us to study together with other students and learn from each other. The VCAN program staff constantly supports us to an extent by encouraging the importance of keeping our grades good, and

they also provide needed study support to ensure students with learning difficulties are left behind. We learn about the internship opportunities our seniors get, and they help us find similar ones, which I think is most important. This program is effective, I believe."

Several first-year students noted that they learned about the VCAN program from their seniors attending VSU, which also helped them join VSU. The first-year students are very upbeat about the effectiveness of the VCAN, and a student mentioned visualization helped to devise a path to graduation (#8):

"Career path visualization is part of the VCAN program, and every student needs to develop a broad activity for their plan to graduate and after graduation. Such visualizations are essential as they provide the needed exposure to develop the skills we lack."

Another first-year student (#11) mentioned mentorship and learning from peers helped, which stands as evidence for the impact of the VCAN program on its community:

"The VCAN program encourages us to engage high school students from the high school we graduated from and talk about the program's effectiveness and how it helps us. Not only is this program very effective for us, but it also passes this on to future students of VSU."

### **Impact of the VCAN Program**

VCAN program primarily addresses the gaps for Black students with postsecondary retention. With equitability, affordability, and transformative goals, VCAN initiatives, as prior research suggests, that information provided to students and their families improves retention and student success (Bettinger et al., 2012). The effectiveness of the VCAN program is evidenced by the student interviews, as most students felt "safe," "valued," "continuous learning," and "opportunities." More notably, junior-year students think of a



more positive impact of the VCAN program as a door to their financial freedom upon graduation. Students echoed the sense of belonging more comparatively, as an impact of the VCAN program, which helped them to learn continuously and keep their skills updated.

As evidenced by the interviews, junior-year students reflected upon ways that helped secure internships and shadowing opportunities to open doors for future careers. As indicated by a student (#13), the support from VSU staff and working with the counselors helped secure the confidence in the necessary steps to work with professionals in the chosen field for the student's career.

"The VCAN program helped me to take my education to the next level. VCAN is helping me to expand beyond just my classes and supporting me in advocating for myself and my education. The program helped me secure an internship that may become a long-term career. The work being done with the VCAN program has made me realize that I can be more than just an electrician; I can become an electrical engineer. The scholarship has turned my interest into a career."

A student (#16) noted that the opportunities at VSU help secure added financial freedom.

"The VCAN program has helped me by encouraging me to apply for different internships. I had my first internship last semester with Verizon Innovative Learning and learned so much. I am applying for Open Door Summer Research at UVA for this summer. VCAN is also helping me to apply for the Thurgood Marshall Scholarship to help me with other expenses so I can learn without worrying about money."

For another student (#20), it was the support from VSU staff to make connections and establish career-opportunity internships.

"It is beneficial to be in VCAN because we have each other. Dr. Coleman and all the staff here work together to help us find ways to have internships that could help us get long-term careers. Like our family, we are lucky to have them and our Group."

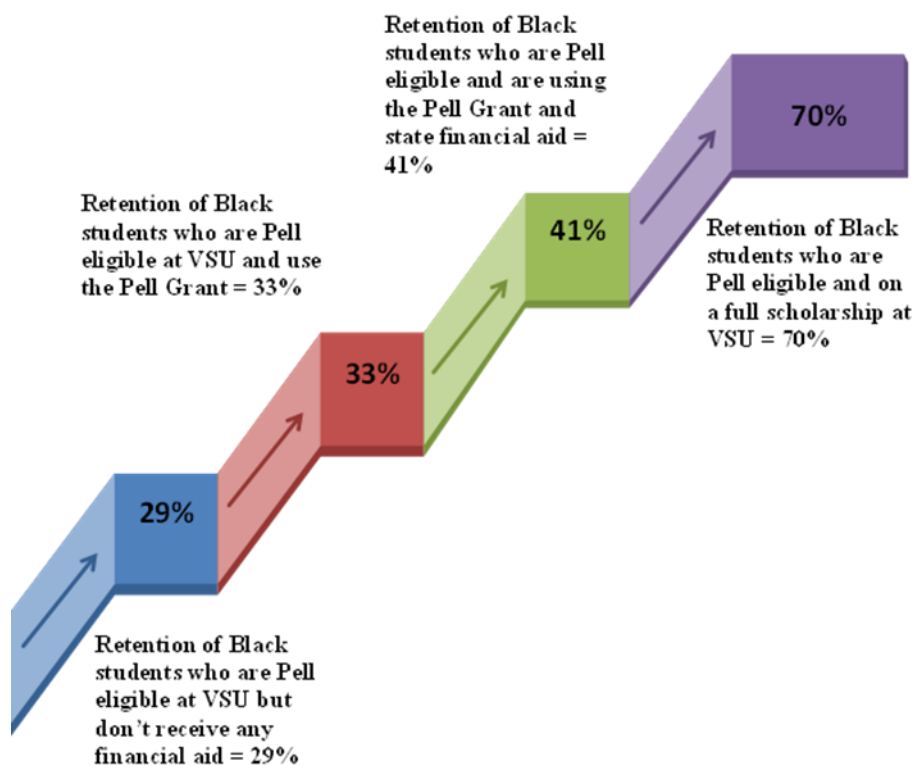
## Part Six: Findings and Recommendations

Our Recommendations are summarized in three sections below.

### Findings from SCHEV data

Student retention rates for Black students at VSU are impacted by family income. The retention rate for Black students from low-income families at VSU is 29%, for middle-income families is 39%, and for high-income families is 58% (GR-SC01, n.d.). The SCHEV data clearly shows that low-income students who are eligible for Pell grants are more susceptible to dropping out of college compared to Black students from higher-income families. Therefore, this data makes a clear case for financial aid. Data (Figure 4) shows that if a Pell-eligible student uses a Pell Grant, their chance of retention at VSU increases from 29% to 33% (GR-SC02, n.d.).

Figure 4: Findings from SCHEV Data



Sixty percent of Black students at VSU have unmet financial needs (GR-SC03, n.d.). SCHEV data on VSU shows that VSU's retention rate for Black students is 37%. However, Black students on an athletic scholarship have a retention rate of 70% (Graduation rates, n.d.), further making the case for financial aid for students. According to VSU's administration, student-athletes also receive on-campus resources, check-in meetings, mentorships, engagement in a community, and experiences participating in activities, all teamed with financial aid, resulting in a higher retention rate.

When Black students leverage Pell Grants and other state financial aid, their retention rate increases to 41%. In contrast, Black students who are not eligible for Pell have a retention rate of 42%, therefore further suggesting that financial aid closes the retention gap between Pell and Non-Pell students significantly (Graduation rates, n.d.). The jump to 41% retention rate for Black students who are Pell eligible at VSU after state financial aid is applied is formidable; still far from the state average of 70%. To achieve the state average and higher standards, other tenants like on-campus resources, check-in meetings, mentorships, engagement in a community, and experiences participating in activities need to continue to support enhancements and financial support.

### **Findings from student interviews**

The capstone team interviewed VCAN students to explore their experiences with the program. The students shared insights into the resources they found most beneficial on campus, including the impact of on-campus resources, check-in meetings with the VCAN staff, mentorships provided through engagement in the community, and the in-person community experiences that they felt positively impacted their student experience.

VCAN students were interviewed to explore their experiences with the program. The students shared insights into the most beneficial resources on campus, including the impact of check-in meetings with VCAN staff, their experiences with mentorships, and their engagement in the Community. Students talked about other activities, such as the vision board, to envision future goals and the significance of mentoring for incoming first-year students. Some students elaborated on their involvement in VCAN recruitment initiatives, such as conducting student panels and workshops at local high schools to promote VSU and VCAN. Current students felt driven to become liaisons to the regional high schools and expressed their desire to support a more transparent and straightforward registration process when applying for VCAN.

### **Findings from Administrator interviews**

There are summer preparation programs for students to prepare for the academic year. Black students are not monolithic. The programs at VCAN focus on Pell-eligible students, while non-Pell students also benefit. VCAN provides resources that are "intrusive" and "hands-on." The administrators noted that they regularly contacted students to provide tutoring, advisement, residence support, and learning community support to further support students. Additional comments indicated that students within the VCAN program were requesting more on-campus resources, such as clothing closets and food pantries. However, staff support is needed to operate the closet and pantry for longer hours to provide more access for students.

Another noted comment shared by the administration is that VCAN scholarships are a great source of support. Still, there are "what ifs" that impact students, such as residence, technology issues, classroom issues, and academic performance, to name a few. As administrators, they have worked together to improve by engaging students earlier in the program to support retention. Engagement and retention are often necessary to help students who need to maintain a minimum 2.5-grade point average to stay in the program; falling below the required grade point average will result in the loss of their Pell scholarship, but they may still be eligible for other services not prescribed by Pell. With the growing awareness of early intervention, the administration has focused on personalized check-ins that have dramatically improved students' success and helped students maintain a better grade point average.

A noted concern by all administrators is the risk of students losing Pell eligibility because of parental income increases. While most families would be excited to receive an increase in

income, the slightest increase may impact a student's Pell eligibility, rendering them unable to qualify for college money before completing degree requirements. Students rely on securing financial resources to complete their school requirements when such a situation occurs.

Other tools, such as virtual meetings, support students in staying engaged in the VCAN community regularly. Tools like GroupMe support continuous communication of the VCAN student group and support dialogue on the granular level. This is primarily used by first-year students still learning to navigate college. Upperclassmen monitor the GroupMe app to help first-year students with questions ranging from content-level concerns to navigation questions. The administration also creates numerous activities on campus, such as vision board workshops to support students in creating opportunities to examine future pathways to their future. VCAN also hosts game nights to build its student community bond.

With nearly 700 students in the program, students are spread throughout the campus. However, administrators have found ways to further brand the VCAN program by offering VCAN bookbags to enrolled students. Further highlighting the successes and celebration of the program, VCAN chords will be handed out for graduation and will be used this year.

Trojans Connect is a state-funded program for Pell-eligible students, including excursions like field trips. These are student support activities to help with retention. The black student retention gap at VSU in 2018 between Non-Pell and Pell students was 25%. Since VCAN has been implemented, that gap has closed yearly from 11% in 2019, 9% in 2020, 5% in 2021, and 2% in 2022.

Table 1 – Pell Vs Non-Pell Black students retention gap

<b>Academic Year</b>	<b>Black student retention at VSU (Pell)</b>	<b>Black student retention at VSU (Non-Pell)</b>	<b>Retention Gap between Pell and Non-Pell</b>
<b>2019 – 2020</b>	<b>33%</b>	<b>58%</b>	<b>25% Gap</b>
<b>2020 – 2021*</b>	<b>48%</b>	<b>59%</b>	<b>11% Gap</b>
<b>2021 – 2022</b>	<b>49%</b>	<b>58%</b>	<b>9% Gap</b>
<b>2022 – 2023</b>	<b>55%</b>	<b>60%</b>	<b>5% Gap</b>
<b>2023 – 2024</b>	<b>59%</b>	<b>61%</b>	<b>2% Gap</b>

*\*First Year of VCAN*

This difference reflects VCAN. Mentorship, supplemental instruction, virtual Community, and personal Community are part of the success. Removed the financial component, which helps with retention. Support is present in other programs, but the economic element is also vital. Loans often discourage potential and current students, and a co-signer is usually not an option. VCAN is an intrusive and supportive model program that can create a family culture. With more VCAN academies, VSU can grow and increase student retention.

## **Recommendations from Evaluation**

The Commonwealth of Virginia took an important step in designing and implementing VCAN, which clearly shows improving retention of Black students who are Pell eligible. VSU should use the data from the last four years to make the case for VCAN for the state to expand the VCAN scholarship to all Pell students at VSU (including housing and meal coverage). Students must renew Pell eligibility each year. If a student based on family income is no longer eligible for Pell, they lose the VCAN scholarship. We recommend that Virginia state authorities provide a four-year commitment to all initially enrolled Pell eligible who maintain academic eligibility for the VCAN program. Students enjoy the VCAN staff support, especially in maintaining grades. Support staff conduct personalized check ins and community engagement activities. Our evaluation shows that two more VCAN staff should be hired to support this work. Additionally, our evaluation found that students are benefitting from mentorships. Student mentors should be trained regularly and paid or receive college credit for this work. While tenants such as the VCAN Virtual community are working well, we recommend that more activities such as planning their future be instituted. Furthermore, continue to plan more meaningful activities that support the VCAN community.

Lastly, programs like vision boards can be scaled to all students. Professional headshot days and preparation for job interviews. Trojans Connect is a state-funded program for Pell-eligible students, including excursions like field trips. The state should wrap this in VCAN, making it a sustainable grant. VCAN wants to institute academies. VCAN is about 20% of the student body. If scaled, it could dramatically increase student retention at VSU. Finally, housing costs are not covered in VCAN anymore because the state has not maintained the funds. The state needs to increase funding for housing and food.



## Conclusion

Virginia State University (VSU) has a rich history as the first established Historically Black University in Virginia. Until 1992, the first President of VSU, John Mercer Langston was the only Black person ever elected to U.S. congress from Virginia (elected in 1888), and he was the great-uncle of the famed writer Langston Hughes. The first Black women in the region to vote in 1920 after women's suffrage were all members of the VSU faculty.

What once was a cherished university, has now been neglected for decades. VSU is located in the most impoverished region of Virginia. This is why VSU serves as a good place to evaluate strategies in increasing retention of Black students who are Pell-eligible. Pell grants cover only a proportion of college tuition for low-income students. A recent study found that if Pell Grants are available year-round and coupled with other financial aid, students are more likely to persist and complete their degree (Liu & Zhou, 2024).

Virginia College Affordability Network (VCAN) served as the perfect case study for this evaluation because it provides a full scholarship to Pell-eligible students who live within 45 miles of VSU and can maintain a 2.0 GPA. When our evaluation began, VCAN had finished three years of academic year with fourth year almost complete. This research is relevant because there is no research specifically on the retention of Black students who are Pell-eligible. The largest concentration of Black students who are Pell-eligible attend HBCUs (Mfume, 2015).

Black students who are Pell-eligible have a tougher time staying in school, as also evident at VSU. However, students highly in VCAN appreciated VSU's effort—evident from their interviews. In addition to the full scholarship, VSU like other HBCUs is very innovative in supporting its students. VCAN provided other supports like exposure to on-campus

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resources, personalized check in meetings, mentorships, community engagement, and activities. This holistic approach shows that retention of Black students who are Pell-eligible dramatically improved over the four years of the program. The retention rate at VSU for Black students who are Pell-eligible is now nearly on par with Black students who are Non Pell-eligible.

Further research on retention of Black students who are Pell-eligible will help provide a flashlight in to ongoing strategies which are helping increase student retention. The Commonwealth of Virginia can benefit from this evaluation because it provides a strong basis to not only further research but makes a strong case to enhance VCAN and scale it to other institutions of higher education.

## Appendix

Table 2 – Student Interview Participation Demographics

SL	Gender	Race	College Year
1	Female	Black	Junior
2	Female	Black	Sophomore
3	Female	Black	Sophomore
4	Male	Black	Sophomore
5	Female	Black	Sophomore
6	Female	Others	Senior
7	Male	Black	Junior
8	Male	Black	Freshmen
9	Female	Black	Junior
10	Female	Black	Junior
11	Male	Black	Freshmen
12	Female	Black	Senior
13	Female	Black	Junior
14	Female	Black	Sophomore
15	Male	Black	Sophomore
16	Female	Black	Junior
17	Female	Black	Freshmen
18	Male	Black	Freshmen
19	Female	Black	Senior
20	Female	Black	Junior
21	Female	Black	Freshmen
22	Female	Black	Sophomore
23	Male	Black	Junior

Figure 5: Student Participation by Gender

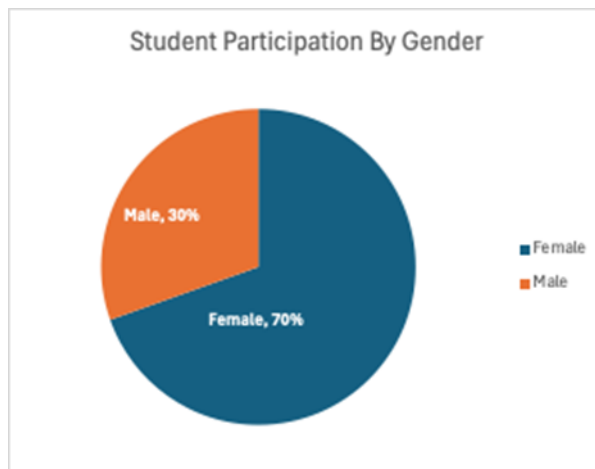


Figure 6: Student Participation by College Year

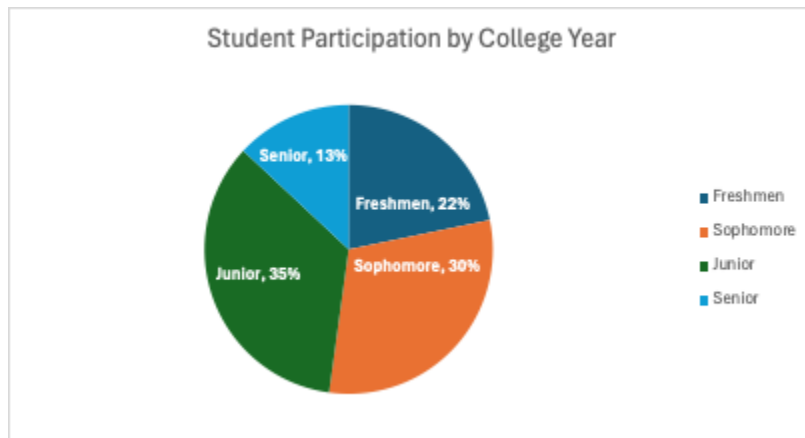


Figure 7: Student Response to Scholarships

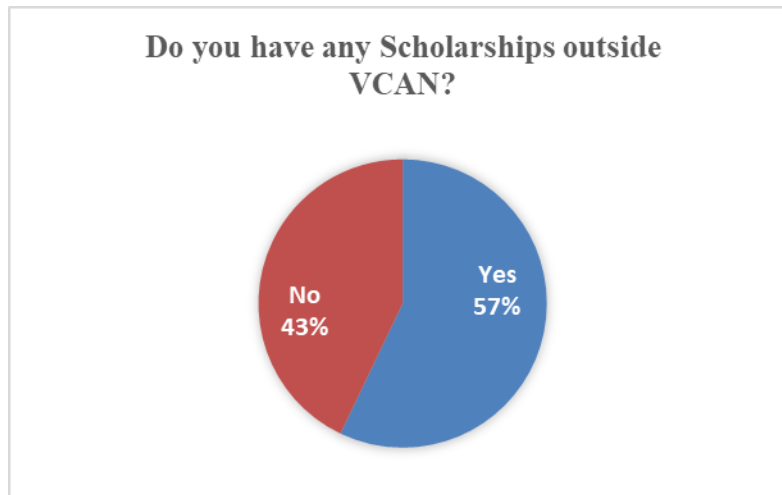


Figure 8: Student Response to work options/skills development

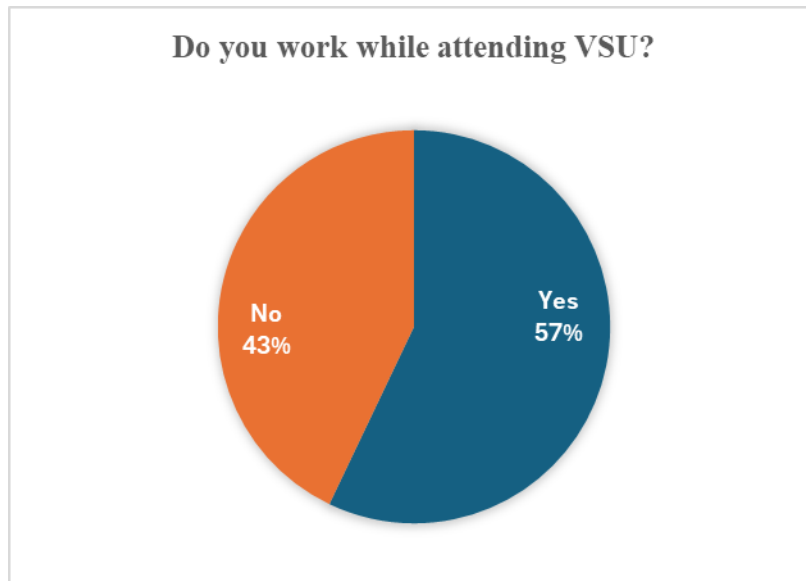


Figure 9: Student Response to Housing Options

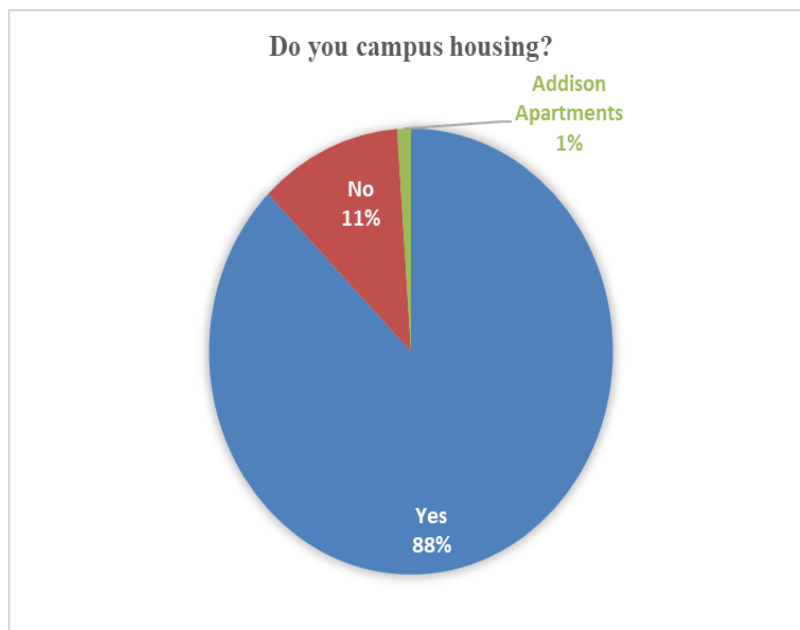


Table 3 – Time Line and Logs

<b>Time</b>	<b>Log</b>
September 8, 2023	The capstone team met with the VSU leadership to discuss and learn about VSU needs and the VCAN program.
September 21, 2023	The capstone team settles on evaluating VCAN's impact on VSU students.
October 4, 2023	The capstone team meets with VSU leadership to plan an evaluation of VCAN.
January 10, 2024	The capstone team submits the area of inquiry, research synthesis memo, and scope of work to the capstone advisor.
January 16, 2024	The capstone team sends an initial survey to collect demographic data on VCAN students who will be interviewed and to set up interview times.
January 24, 2024	The capstone team submits conceptual framing and project questions to the capstone advisor.
February 7, 2024	The capstone team submits the data collection plan, timeline, and recruitment materials to the capstone advisor.
February 7, 2024	The capstone team submits data collection tools to the capstone advisor.
February 11, 2024	The capstone team receives IRB approval.
February-April 2024	The capstone team meets with the capstone team advisor.
March 25, 2024	The capstone team gets student demographics for VCAN students to be interviewed.
April 5, 2024	The capstone team conducted interviews with VCAN students and the VSU leadership.

Table 4 – HBCUs Enrollment Specifics

Source: United States Department of Education, National Center for Education Statistics

HBCUs	State	Total Enrollment (2022)	Black enrollment (2022)	Black Enrollment %	Degrees Conferred	Expenses in Thousands
Morehouse College	GA	2,567	2,527	98.44%	464	107,474
Simmons College of Kentucky	KY	237	232	97.89%	24	9,209
Clark Atlanta University	GA	4,000	3,894	97.35%	807	137,253
Interdenominational Theological Center	GA	193	187	96.89%	75	9,283
Hampton University	VA	3,286	3,164	96.29%	824	194,864
Stillman College	AL	744	714	95.97%	100	15,904
Johnson C. Smith University	NC	1,093	1,048	95.88%	239	47,413
Rust College	MS	755	721	95.50%	125	21,890
Southwestern Christian College	TX	88	84	95.45%	20	3,879
Virginia State University	VA	4,648	4,424	95.18%	697	194,535
Miles College	AL	1,258	1,197	95.15%	186	42,113
LeMoyne-Owen College	TN	609	579	95.07%	121	18,985
South Carolina State University	SC	2,649	2,509	94.71%	408	110,793
Alcorn State University	MS	2,933	2,775	94.61%	783	91,629
Wilberforce University	OH	656	620	94.51%	73	17,831
Lane College	TN	1,010	954	94.46%	106	32,984
American Baptist College	TN	53	50	94.34%	6	6,212
Allen University	SC	657	619	94.22%	76	22,788
Morris College	SC	384	361	94.01%	76	19,278
Grambling State University	LA	5,058	4,736	93.63%	805	120,873
Voorhees College	SC	507	474	93.49%	97	25,752
Livingstone College	NC	839	784	93.44%	147	34,311
Virginia Union University	VA	1,860	1,732	93.12%	249	44,729
Saint Augustine's University	NC	1,108	1,031	93.05%	67	36,645
Alabama A&M University	AL	6,007	5,587	93.01%	769	220,192
Coahoma Community College	MS	1,783	1,654	92.77%	250	37,182
Tougaloo College	MS	677	628	92.76%	131	29,023
Jackson State University	MS	6,906	6,402	92.70%	1,691	190,998
Dillard University	LA	1,224	1,129	92.24%	192	50,886
Clafin University	SC	1,830	1,676	91.58%	460	61,402
Tuskegee University	AL	2,570	2,353	91.56%	523	143,182
Clinton College	SC	197	179	90.86%	13	7,975
Alabama State University	AL	3,828	3,469	90.62%	623	162,611
Fort Valley State University	GA	2,605	2,355	90.40%	411	96,570
Southern University at Shreveport	LA	3,154	2,835	89.89%	174	42,165

Southern University and A&M College	LA	8,226	7,327	89.07%	1,166	224,324
University of Arkansas at Pine Bluff	AR	2,387	2,123	88.94%	387	94,382
Southern University at New Orleans	LA	1,950	1,730	88.72%	362	45,902
Mississippi Valley State University	MS	1,879	1,654	88.03%	311	56,343
Texas College	TX	642	563	87.69%	89	13,227
Edward Waters University	FL	1,181	1,032	87.38%	113	40,867
Philander Smith College	AR	769	671	87.26%	169	22,044
Bethune-Cookman University	FL	2,727	2,374	87.06%	430	89,727
Spelman College	GA	3,102	2,695	86.88%	483	120,810
Cheyney University of Pennsylvania	PA	697	598	85.80%	76	32,722
Savannah State University	GA	2,945	2,521	85.60%	566	93,975
Lincoln University	PA	1,824	1,560	85.53%	453	74,973
Talladega College	AL	903	771	85.38%	161	17,800
Norfolk State University	VA	5,783	4,930	85.25%	858	215,019
Florida A&M University	FL	9,215	7,850	85.19%	2,284	350,791
Meharry Medical College	TN	962	816	84.82%	333	195,419
Virginia University of Lynchburg	VA	837	708	84.59%	304	4,601
Prairie View A&M University	TX	9,056	7,654	84.52%	1,721	356,965
Paine College	GA	310	261	84.19%	42	13,173
Harris-Stowe State University	MO	1,084	912	84.13%	237	44,013
Coppin State University	MD	2,006	1,686	84.05%	376	108,173
Arkansas Baptist College	AR	497	417	83.90%	35	17,289
Morehouse School of Medicine	GA	891	745	83.61%	211	241,683
Wiley College	TX	698	582	83.38%	114	23,147
Bowie State University	MD	6,275	5,200	82.87%	1,068	173,891
North Carolina A&T State University	NC	13,487	11,153	82.69%	2,502	345,566
Albany State University	GA	6,334	5,220	82.41%	1,430	140,284
Texas Southern University	TX	8,632	6,983	80.90%	1,481	282,361
Xavier University of Louisiana	LA	3,419	2,762	80.78%	660	131,635
Lawson State Community College	AL	2,919	2,353	80.61%	303	41,886
Benedict College	SC	1,840	1,477	80.27%	265	49,532
Winston-Salem State University	NC	5,004	4,005	80.04%	1,123	167,152
Fisk University	TN	1,055	840	79.62%	147	34,579
Langston University	OK	1,903	1,515	79.61%	295	68,037
Tennessee State University	TN	9,218	7,288	79.06%	1,245	232,764
Morgan State University	MD	9,101	7,145	78.51%	1,293	331,474
Shaw University	NC	1,067	834	78.16%	192	41,336
Florida Memorial University	FL	1,137	871	76.61%	253	50,284
North Carolina Central University	NC	7,553	5,717	75.69%	1,729	269,453
Oakwood University	AL	1,470	1,109	75.44%	247	63,374
Denmark Technical College	SC	725	545	75.17%	32	17,342



Shorter College	AR	321	239	74.45%	29	10,893
Howard University	DC	12,886	9,466	73.46%	2,067	990,197
H. Councill Trenholm State Community College	AL	1,984	1,451	73.14%	208	28,497
University of the Virgin Islands	VI	1,636	1,161	70.97%	269	78,095
Kentucky State University	KY	1,726	1,223	70.86%	214	88,661
Jarvis Christian University	TX	729	513	70.37%	94	21,669
Elizabeth City State University	NC	2,149	1,508	70.17%	337	91,494
University of Maryland, Eastern Shore	MD	2,518	1,765	70.10%	444	133,198
Delaware State University	DE	5,826	4,074	69.93%	929	189,540
Bennett College	NC	168	116	69.05%	55	14,468
Fayetteville State University	NC	6,787	4,214	62.09%	1,452	144,468
J. F. Drake State Community and Technical College	AL	976	593	60.76%	75	15,255
University of the District of Columbia	DC	3,577	2,144	59.94%	704	193,764
Bishop State Community College	AL	2,968	1,718	57.88%	292	39,818
Huston-Tillotson University	TX	1,025	571	55.71%	244	37,063
Paul Quinn College	TX	938	461	49.15%	80	18,795
Lincoln University	MO	1,833	819	44.68%	308	63,574
Central State University	OH	5,434	2,358	43.39%	453	99,381
Shelton State Community College	AL	4,166	1,592	38.21%	572	46,237
Gadsden State Community College	AL	4,352	765	17.58%	691	56,125
Bluefield State College	WV	1,306	201	15.39%	248	26,812
Saint Philip's College	TX	12,653	1,169	9.24%	1,256	112,021
West Virginia State University	WV	3,785	326	8.61%	400	49,792

Table 5 – Overall Black Student Retention Rates (2015-2021)

\*Source: National Student Clearinghouse (NSC, 2023)

Year Ethnicity		2015	2016	2017	2018	2019	2020	2021
		Black	Black	Black	Black	Black	Black	Black
Overall	Retention Count	149,590	139,273	139,075	137,045	133,221	124,192	125,447
	Retention Rate	56.5%	56.0%	55.2%	55.4%	56.1%	55.2%	55.5%
	Persistence Count	178,203	167,307	166,345	164,025	154,123	147,382	148,688
	Persistence Rate	67.3%	67.2%	66.0%	66.3%	64.9%	65.5%	65.8%
	Student Count	264,833	248,880	251,908	247,475	237,645	225,164	226,109
Full-Time	Retention Count	121,921	113,338	114,702	113,338	111,543	103,003	104,608
	Retention Rate	62.4%	62.0%	61.0%	61.1%	62.6%	60.9%	61.1%
	Persistence Count	144,772	135,995	136,940	135,484	128,596	121,013	123,183
	Persistence Rate	74.1%	74.4%	72.8%	73.0%	72.1%	71.6%	72.0%
	Student Count	195,502	182,887	188,159	185,530	178,314	169,114	171,137
Part-Time	Retention Count	22,348	21,808	21,275	21,211	19,677	18,805	18,934
	Retention Rate	39.8%	39.2%	38.1%	38.5%	36.7%	38.2%	38.2%
	Persistence Count	26,575	25,875	25,143	25,012	22,691	23,003	22,628
	Persistence Rate	47.3%	46.5%	45.1%	45.4%	42.4%	46.7%	45.6%
	Student Count	56,195	55,698	55,797	55,091	53,577	49,247	49,580
Non-Credential	Retention Count	2,694	2,737	1,871	1,241	1,052	1,528	1,050
	Retention Rate	42.5%	43.3%	44.6%	41.9%	42.1%	43.5%	47.5%
	Persistence Count	3,450	3,399	2,391	1,611	1,348	1,947	1,343
	Persistence Rate	54.4%	53.8%	57.0%	54.3%	54.0%	55.4%	60.7%
	Student Count	6,337	6,319	4,192	2,965	2,498	3,515	2,212
Program Unknown	Retention Count	2,627	1,390	1,227	1,255	949	856	855
	Retention Rate	38.6%	35.0%	32.6%	32.3%	29.1%	26.0%	26.9%
	Persistence Count	3,406	2,038	1,871	1,918	1,488	1,419	1,534
	Persistence Rate	50.1%	51.3%	49.8%	49.3%	45.7%	43.2%	48.2%
	Student Count	6,799	3,976	3,760	3,889	3,256	3,288	3,180

## References

- Aina, Carmen, Eliana Baici, Giorgia Casalone, and Francesco Pastore. 2022. *The Determinants of University Dropout: A Review of the Socioeconomic Literature*. *Socioeconomic Planning Sciences* 79:101102-. DOI: 10.1016/j.seps.2021.101102.
- Archibald P, Estreet A. *Utilization of the interprofessional education, practice, and research model in HBCU social work education*. *Journal of human behavior in the social environment*. 2017;27(5):450-462. doi:10.1080/10911359.2017.1292981
- Astin, A. W. (1972). *College dropouts: A national profile* (American Council on Education Research Reports). Washington, DC: American Council on Education.
- Bandura, A., & Walters, R. H. (1977). *Social learning theory* (Vol. 1). Prentice Hall: Englewood Cliffs.
- Bandura, A. Ross, D., & Ross, S. A. (1961). *Transmission of aggression through the imitation of aggressive models*. *Journal of Abnormal and Social Psychology*, 63, 575-582
- Barbatis, P. (2010). *Underprepared, Ethnically Diverse Community College Students: Factors Contributing to Persistence*. *Journal of Developmental Education*, 34(1), 16.
- Bettinger, E.P, Long, B. T., Oreopoulos, P., & L. Sanbonmatsu. (2012). *The role of the application assistance and information in college decisions: Results from the H&R Block FAFSA experiment*. *The Quarterly Journal of Economics*, 127(3), 1205–1242.
- Blum, M. E., & Spanghel, S. D. (1982). *Developing educational programs for the high-risk secondary student*. New York: Columbia University.
- Brown McNair, T., Albertine, S., Cooper, M. A., McDonald, N., & Major, T. Jr. (2016). *Becoming a student-ready college: A new culture of leadership for student success*.
- Brooms, D. R. (2018). 'Building us up': Supporting black male college students in a black male initiative program. *Critical Sociology*, 44(1), 141-155.
- Boyd, N. M., Liu, X., & Horissian, K. (2022). *Impact of Community Experiences on Student Retention Perceptions and Satisfaction in Higher Education*. *Journal of College Student Retention: Research, Theory & Practice*, 24(2), 337-365.
- Ciocca Eller C, DiPrete TA (2018). *The paradox of persistence: explaining the black-white gap in bachelor's degree completion*. *Am Socio Rev*;83(6):1171–214.  
<https://doi.org/10.1177/0003122418808005>.
- Conyers, J. L. (2015). *Black lives: Essays in African American biography*. New York, NY: Routledge.

- Commonwealth Institute. (2016) *The Soaring Cost of Virginia's Public Universities*.  
<https://thecommonwealthinstitute.org/the-half-sheet/the-soaring-cost-of-virginias-public-universities/>
- Creswell, J. (1998). *Qualitative inquiry and research: Choosing among five traditions*. Thousand Oaks, CA: Sage
- Farmer, E., Hilton, A. A., & Reneau, F. H. (2016). *Variables that Contribute to Retention and Graduation of Black American Females at a Historically Black University*. *Negro Educational Review*, 67(1-4), 133-148,169.
- Fredricks, J., & Eccles, J. (2006). Is extracurricular participation associated with beneficial outcomes? Concurrent and longitudinal relations. *Developmental Psychology*, 42(4),698-713.
- Elkins, Susan A., John M. Braxton, and Glenn W. James. 2000. *Tinto's Separation Stage and Its Influence on First-Semester College Student Persistence*. *Research in Higher Education* 41(2):251–68. doi: 10.1023/A:1007099306216.
- Gasman M, Nguyen TH. (2018) *Myths Dispelled: A Historical Account of Diversity and Inclusion at HBCUs*. *New directions for higher education*. 2015;2015(170):5-15. doi:10.1002/he.20128
- Gopalan, M., & Brady, S. T. (2020). College Students' Sense of Belonging: A National Perspective. *Educational Researcher*, 49(2), 134-137.
- GR-SC01: Six-year graduation rate trends by economic subcohorts (low, middle, high). (n.d.).  
[https://research.schev.edu/gradrates/CHL\\_EconTrendsHeac.asp](https://research.schev.edu/gradrates/CHL_EconTrendsHeac.asp)
- GR-SC02: Six-year graduation rate trends by economic subcohorts (income ranges). (n.d.).  
[https://research.schev.edu/gradrates/CHL\\_EconTrends.asp](https://research.schev.edu/gradrates/CHL_EconTrends.asp)
- GR-SC03: Six-year graduation rate trends by unmet need categories (budget-EFC-gift aid). (n.d.).  
[https://research.schev.edu/gradrates/CHL\\_Trends\\_FAGAP.asp](https://research.schev.edu/gradrates/CHL_Trends_FAGAP.asp)
- Graduation rates, institutional profile, 4-10 years, by Subcohorts. (n.d.).  
[https://research.schev.edu/gradrates/subcohorts\\_instprofile.asp](https://research.schev.edu/gradrates/subcohorts_instprofile.asp)
- Gumport, P. (2012). *Strategic Thinking in Higher Education Research*. In M. Bastedo (ed.) *The Organization of Higher Education: Managing Colleges for a New Era*. Baltimore, MD: The Johns Hopkins University Press.
- Henderson SM, Burton-Krieger MC, McClendon ME. *A Communal Approach to Retention: Birmingham Southern College*. Vanderbilt University. Peabody College; 2016.

- Hanks, A., Solomon, D., & Weller, C. E. (2018). Systematic Inequality: *How America's Structural Racism Helped Create the Black-White Wealth Gap*. (). Center for American Progress. Retrieved from Social Science Premium Collection
- Henning, W. 2004. Everyday cognition and situated learning. In Handbook of research on educational communications and technology, 2nd ed., ed. D. Jonassen, 143–168. Mahwah, NJ: Erlbaum
- Hill, J. R., D. P. Domizi, M. C. Kim, and H. Kim, M. J. Hannafin. 2007. *Teaching and learning in negotiated and informal environments*. In Handbook of distance education, 2nd ed., ed. M. G. Moore, 271–284. Mahwah, NJ: Erlbaum.
- Hill, J. R., Song, L., & West, R. E. (2009). *Social Learning Theory and Web-Based Learning Environments: A Review of Research and Discussion of Implications*. *American Journal of Distance Education*, 23(2), 88–103. <https://doi.org/10.1080/08923640902857713>
- Hill, J. R., A. Raven, and S. Han. 2007. Connections in Web-based learning environments: A research-based model for community building. In Online
- Hicks, N., West, L., Amos, J., & Maheshwari, S. (2014). *The effect of Pell Grant changes on the graduation rate of college finances: A study of rural community colleges in Virginia*. *Journal of Business and Educational Leadership*, 5(1), 142-155.
- Kracher, C. M. (2009). *Academic and non-academic factors associated with retention of undergraduate college students*. In: ProQuest Dissertations Publishing.
- Hicks, N., West, L., Amos, J., & Maheshwari, S. (2014). *The effect of Pell Grant changes on the graduation rate and college finances: A study of rural community colleges in Virginia*. *Journal of Business and Educational Leadership*, 5(1), 142.
- Ingram TN, Greenfield D, Carter JD, Hilton AA, eds. *Exploring Issues of Diversity within HBCUs / Edited by Ted N. Ingram, Derek Greenfield, Joelle D. Carter, Adriel A. Hilton*. Information Age Publishing; 2015.
- Johnson, M., Walther, C., & Medley, K. J. (2018). Perceptions of advisors who work with high-achieving students.
- Kerkvliet, Joe, and Clifford Nowell. 2005. "Does One Size Fit All?: University Differences in the Influence of Wages, Financial Aid, and Integration on Student Retention." *Economics of Education Review* 24(1):85–95. doi: 10.1016/j.econedurev.2004.03.009.

- Locks, A. M., Hurtado, S., Bowman, N. A., & Oseguera, L. (2008). Extending notions of campus climate and diversity to students' transition to college. *The Review of Higher Education*, 31, 257-285
- Murphy, Mary C., Maithreyi Gopalan, Evelyn R. Carter, Katherine T. U. Emerson, Bette L. Bottoms, and Gregory M. Walton. 2020. "A Customized Belonging Intervention Improves Retention of Socially Disadvantaged Students at a Broad-Access University." *Science Advances* 6(29):eaba4677–eaba4677.
- McMillan, D., and D. Chavis. (1986). "Sense of Community: A Definition and Theory." *Journal of Community Psychology*, 14 (1): 6-23.
- Kao G, Thompson JS (2003). Racial and ethnic stratification in educational achievement and attainment. *Annu Rev Sociol* 2003;29:417–42. <https://doi.org/10.1146/annurev.soc.29.010202.100019>.
- Langelett, G., Chang, K.-L., Ola' Akinfenwa, S., Jorgensen, N., & Bhattarai, K. (2015). *The elasticity of demand for tuition fees at an institution of higher education*. *Journal of Higher Education Policy and Management*, 37(1), 111-119. doi:10.1080/1360080x.2014.991536
- Lee Jr JM. (2015) Moving Beyond Racial and Ethnic Diversity at HBCUs. *New directions for higher education*. 2015;2015(170):17-35. doi:10.1002/he.20129
- Leon-Sullivan, P. A. (2021). Understanding Academic Advisors Engaging First-Year Students in College Retention (Doctoral dissertation, Northcentral University).
- Masters, K. (2022, April 27). *One of Virginia's poorest cities is also its least healthy; new rankings show* • *Virginia Mercury*. Virginia Mercury. <https://viriniamercury.com/2022/04/27/one-of-virinias-poorest-cities-is-also-its-least-healthy-new-rankings-show/>
- Mazhari, T., & Atherton, G. (2020). *Students' financial concerns in higher education*. *Higher Education Quarterly*, 75(1), 6-21. doi:10.1111/hequ.12267
- McGinity, D.A. (1989). *A Path of Analysis of Effects of Multiple Progress of Student Persistence*. Ann Arbor, MI: University of Michigan.
- Mendoza, P., Mendez, J. P., & Malcolm, Z. (2009). *Financial Aid and Persistence in Community Colleges: Assessing the Effectiveness of Federal and State Financial Aid Programs in Oklahoma*. *Community College Review*, 37(2), 112-135.
- Mfume, T. B. (2015). *What works at Historically Black Colleges and Universities (HBCUs): Nine strategies for increasing retention and graduation rates*. Rowman & Littlefield.

- NCED, (2022) National Center for Education Statistics, <https://nces.ed.gov/fastfacts/display.asp?id=667#:~:text=In%20contrast%2C%20although%20Black%20enrollment,rebounded%20to%20219%2C000%20in%202022.>
- NCES, (2024) National Center for Education Statistics, <https://nces.ed.gov/programs/coe/indicator/cua>.
- Nahal, A., Thompson, A., Rahman, M. A., & Orr, V. F. (2015). *Ethnic and cultural diversity at HBCUs and its impact on students, faculty, and staff*. Exploring issues of diversity within HBCUs, 137-163.
- Nabavi, R. T. (2012). Bandura's social learning theory & social cognitive learning theory. *Theory of Developmental Psychology*, 1(1), 1-24.
- NSC (2023), National Student Clearinghouse, Research Center, Persistence and Retention, <https://nscresearchcenter.org/persistence-retention/>
- Nichols, A. H. (2015). *The Pell Partnership: Ensuring a Shared Responsibility for Low-Income Student Success*. Education Trust.
- Pascarella, E. T., and Terenzini, P.T. (2005). *How College Affects Students: A Third Decade of Research*. San Francisco, CA: Jossey-Bass.
- Pascarella, Ernest T., Patrick T. Terenzini, and Lee M. Wolfle. 1986. *Orientation to College and Freshman Year Persistence/Withdrawal Decisions*. *The Journal of Higher Education* (Columbus) 57(2):155–75. doi: 10.1080/00221546.1986.11778760.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.
- Perna, L. W. (2010). *Understanding the working college student: new research and its implications for policy and practice*. Sterling, VA: Stylus Publishing, LLC.
- Premraj D, "Rudi" Thompson R, Hughes L, Adams J. *Key Factors Influencing Retention Rates Among Historically Underrepresented Students Groups in STEM Fields*. *Journal of college student retention: Research, theory & practice*. 2021;23(2):457-478. doi:10.1177/1521025119848763
- Pickenpaugh, E.N., Yoast, S.R., Baker, A., & Vaughan, A.L. (2021) *The role of first-year seminars and first-year college achievement for undeclared students*. Higher Education.
- Reed, M. S., Evely, A. C., Cundill, G., Fazey, I., Glass, J., Laing, A., Newig, J., Parrish, B., Prell, C., Raymond, C., & Stringer, L. C. (2010). What is Social Learning? *Ecology and Society*, 15(4). <http://www.jstor.org/stable/26268235>
- Richards, D. A. R., & Awokoya, J. T. (2012). *Understanding HBCU Retention and Completion*. Fairfax, VA: Frederick D. Patterson Research Institute, UNCF.

- Richardson Jr, R. C., & Skinner, E. F. (1992). Helping First-Generation Minority Students Achieve Degrees. *New directions for community colleges*, 80, 29-43.
- Strauss, A. (1987). *Qualitative analysis for social scientists*. New York, NY: Cambridge University Press
- Song, L., E. S. Singleton, J. R. Hill, and M. H. Koh. 2004. *Improving online learning: Student perceptions of useful and challenging characteristics*. *Internet and Higher Education* 7 (1): 59–70.
- Scott-Clayton, Judith. 2012. *What Explains Trends in Labor Supply among U.S. Undergraduates?* *National Tax Journal* 65(1):181–210.
- Protopsaltis Spiros and Parrott Sharon (2017), *Pell Grants - a Key Tool for Expanding College Access and Economic Opportunity - Need Strengthening, Not Cuts*, Center on Budget and Policy Priorities.
- Tinto, V. (1975). *Dropout from higher education: A theoretical synthesis of recent research*. *Review of Educational Research*, 45, 89-125.
- Torres, V., Gross, J. P. K., & Dadashova, A. (2010). *Traditional-Age Students Becoming At-Risk: Does Working Threaten College Students' Academic Success?* *Journal of college student retention: Research, theory & practice*, 12(1), 51-68. doi:10.2190/CS.12.1.d
- Tsang, A. (2020). *The value of a semi-formal peer mentorship program for first-year students' studies, socialization, and adaptation*. *Active Learning in High Education*, pp. 1–14.
- Vivian Yuen Ting Liu, Rachel Yang Zhou, Jordan Matsudaira; *Six Years Later: Examining the Academic and Employment Outcomes of the Original and Reinstated Summer Pell Grant*. *Education Finance and Policy* 2024
- Yang, Faxian, and Yangzi Mao. 2021. "Which Factors Impact Pell Grant Students' Persistence and Graduation?" *Journal of Higher Education Theory and Practice* 21(3):111–22.
- Young, D.G. (2020). Is first-year seminar type predictive of institutional retention rates? *Journal of College Student Development*, 61(3), 379–390. <https://doi.org/10.1353/csd.2020.0035>
- Willging, P. A., & Johnson, S. D. (2019). *Factors that influence students' decision to drop out*. *Online Learning Journal*, 13(3), 115–127.
- Wilbanks, James E. 2013. *Mentoring and Entrepreneurship: Examining the Potential for Entrepreneurship education and aspiring new Entrepreneurs*. *Journal of Small Business Strategy* 23(1):93-.



Whitt, E. J., Kuh, G. D., Schuh, J. H., Kinzie, J., & Associates (2005). *Student success in college*. San Francisco: Jossey-Bass