

The Role of HBCUs in Increasing African American Participation in Construction Management

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WIP: The Role of HBCUs in Increasing African American Participation in Construction Management

Abstract – Despite the growing demand for construction managers, African Americans remain significantly underrepresented in both construction management education and the workforce. In 2022, only 225 African American students graduated from Construction Education Programs (CEPs), a stark contrast to the projected annual need for over 38,000 new professionals in the field. While much attention has historically focused on achievement gaps, this study centers on the opportunity gaps that institutions must address—particularly those rooted in systemic inequities in education, funding, and representation.

This mixed methods study explores the barriers limiting African American participation in construction management and the potential of Historically Black Colleges and Universities (HBCUs) to close these gaps. Quantitative data from national education and labor databases will be analyzed alongside survey data from African American students enrolled in HBCU CEPs. Qualitative insights will be drawn from interviews with students to capture lived experiences and institutional practices that either hinder or support success.

The research aims to identify patterns in enrollment, retention, and graduation rates, while also uncovering the cultural, financial, and structural factors that impact student persistence. Early evidence points to the importance of mentorship, community-based support systems, and targeted outreach efforts that raise awareness of construction management as a viable and rewarding career. HBCUs—despite challenges with funding and accreditation—have a proven track record of producing Black STEM graduates and are well positioned to lead the charge in diversifying the construction management workforce.

Findings from this study will inform a framework of best practices for enhancing HBCU CEPs and increasing African American representation in the field. By focusing on intentional recruitment, academic support, and strategic partnerships with industry, the study offers actionable steps that institutions can take to expand opportunity, strengthen career pathways, and support a more inclusive construction industry.

Introduction

The Bureau of Labor Statistics (BLS) projects approximately 38,700 new job openings for construction management positions each year between 2022 and 2032 [1]. Yet, in 2022, there were only 4,158 graduates from CEPs. Of these graduates, only 1,220 were racial minorities and only 225 were African American [2]. So, in addition to there being a high demand for construction management positions, there seems to be an opportunity to increase racial minority participation in this discipline. To do so, we must first understand the causes of the disparities in student enrollment, persistence and success.

There are several program titles and respective classification of instructional program (CIP) codes for educational programs intended to prepare students for the construction management profession. For this reason, this study refers to these programs collectively as CEPs. It appears that US CEPs are not graduating enough students to keep up with the demand for qualified construction managers [3]. Further, there is not a broad representation of minorities among the graduates that are being produced from existing CEPs.

Previous attempts to explain the obvious disparities between the higher education success of students of color and their counterparts have focused on the achievement gap or measurable outcomes over the last twenty-plus years. Such focus places blame on the individual instead of the

program or institution [4]. Less attention has been paid to the opportunity gaps for which institutions and systems must be held accountable.

It is presumed that the 2020 deaths of George Floyd, Breonna Taylor and other Black Americans ignited a racial justice movement throughout the US and caused many colleges and universities to examine their own policies and practices for inequities and discrimination [5]. As a result, there was an increase in initiatives attempting to address opportunity gaps experienced by underrepresented groups. Unfortunately, many of those initiatives have been suspended and/or terminated recently as pressure mounts to reconsider whether such initiatives are justified or needed.

The National Center for Educational Statistics (NCES) defines HBCUs as “institutions established prior to 1964 with the principal mission of educating Black Americans.” [6] If previous initiatives can no longer be employed to address opportunity gaps experienced by African Americans, then perhaps there is a role for HBCUs to fill in producing minority construction education graduates. To fill such a role, HBCUs must understand the factors critical to attracting, retaining and graduating African Americans and apply them to construction education programs.

Driving infrastructure development and creating opportunities for economic mobility, the construction industry is a critical pillar of the global economy. Despite its significance and the lucrative career prospects it offers, African Americans remain notably underrepresented in the construction industry and more specifically in construction management roles and construction education programs (CEPs). This underrepresentation highlights systemic inequities stemming from limited access to quality education, resource disparities, and persistent stereotypes about construction careers being less prestigious.

Addressing these disparities requires a multifaceted approach that encompasses educational reform, targeted recruitment, and enhanced support systems. Historically Black Colleges and Universities (HBCUs) are uniquely positioned to play a pivotal role in bridging these gaps. With their long-standing commitment to fostering academic success among African American students, HBCUs graduate a disproportionately high percentage of African American professionals, including in Science, Technology, Engineering and Math (STEM) and construction-related fields. By examining the root causes of underrepresentation and leveraging the strengths of HBCUs, this study aims to propose actionable strategies to diversify the construction management workforce and foster greater equity within the industry.

Literature Review

Data from 2023 shows that African Americans make up only 4.8% of construction managers, despite comprising 14.4% the overall U.S. population [7], 12.8% of the overall workforce [8], and 5.9% of the construction workforce [9]. For comparison, 89.4% of construction managers were identified as White and 17.6% were identified as Hispanic or Latino [10]. This disparity has profound implications, limiting economic mobility and perpetuating cycles of underrepresentation in leadership roles within the construction sector.

The lack of broad representation of varying population segments in construction management not only perpetuates inequities but also stifles the innovation and creativity that multiple perspectives bring to industries. Numerous studies emphasize the importance of diverse perspectives in fostering adaptive and innovative solutions, qualities essential in the rapidly evolving construction landscape. Bridging these disparities requires interventions that address educational inequities, enhance access to construction management programs, and create

supportive pathways for African Americans to succeed in both academic and professional settings [11].

Educational inequities are a root cause of underrepresentation in construction management, as disparities in funding and resources disproportionately impact African American students. Predominantly Black K–12 schools often lack advanced academic programs, experienced teachers, and extracurricular resources that are crucial for college readiness [12]. Carter and Welner (2013) describe these disparities as an “opportunity gap,” underscoring how systemic underfunding hinders academic achievement and limits career pathways for minority students [13].

Moreover, the achievement gap between African American and White students continues to widen, fueled by structural inequities in education access and support [14]. Reardon (2011) highlights that these disparities not only affect academic outcomes but also reduce the competitiveness of African American students in applying to specialized fields like construction management [15]. Without intentional efforts to address these systemic issues (such as implementing advanced placement courses in underserved schools or increasing access to STEM-focused programs) these gaps will persist, further narrowing opportunities for African Americans to pursue careers in construction management.

The representation of African Americans in construction management programs remains disproportionately low [2]. This underrepresentation reflects broader issues of inclusivity in higher education, particularly in fields historically dominated by White and male students. For many African American students, the experience of isolation in predominantly white academic environments leads to challenges in retention and completion rates [16]. Tinto’s (1993) theory of

student retention emphasizes that creating inclusive and supportive educational settings is critical for fostering a sense of belonging among minority students [17].

Strayhorn (2012) builds on this, illustrating how mentorship and culturally responsive support systems can significantly improve outcomes for African American students [18]. Programs that pair students with mentors who share similar cultural or professional experiences provide both academic guidance and the encouragement necessary to navigate challenges in construction management education. Institutions that actively implement diversity initiatives, such as recruiting diverse faculty and establishing student organizations focused on minority representation, create environments that not only retain African American students but also empower them to excel.

One of the primary barriers to increasing African American participation in construction management is the lack of awareness about career opportunities in the field. A 2020 study by the Associated General Contractors of America revealed that only 12% of African American high school students were familiar with construction management as a viable career path. This gap in awareness is further compounded by historical perceptions of construction as a low-status, labor-intensive profession, rather than a dynamic field requiring advanced technical and managerial expertise [19]. To address this, outreach programs aimed at increasing visibility and interest in construction management careers are essential. Integrating construction-focused content into high school STEM curricula could expose students to the broader opportunities available in the field. Additionally, hands-on learning experiences, such as summer internships or workshops, can demystify construction management careers and highlight their potential for leadership and innovation.

Despite representing only 3% of higher education institutions in the U.S., HBCUs produce 20% of all African American bachelor's degrees and 25% of African American STEM graduates [20]. These institutions provide culturally responsive educational environments that prioritize student success, making them critical to diversifying fields like construction management. However, the potential of HBCUs in advancing broader representation in construction management is limited by the lack of accredited programs. Most HBCUs less funding than their predominantly white counterparts, which impacts their ability to develop specialized programs, recruit experienced faculty, and provide advanced facilities. Despite these challenges, HBCUs excel in fostering mentorship, creating community-oriented support systems, and preparing students for leadership roles. Expanding funding and accreditation opportunities is crucial for leveraging the full potential of HBCUs in addressing underrepresentation in construction management.

Methodology

To explore the barriers contributing to the underrepresentation of African Americans in construction management and identify strategies for fostering fairness within the field, this study employs a mixed methods approach. By integrating quantitative and qualitative data, this methodology provides a comprehensive understanding of the systemic challenges, institutional practices, and industry dynamics that influence minority participation in construction management education and careers.

Data Collection

Quantitative data for this research will be sourced from multiple databases. Enrollment, retention, and graduation rates will be collected from the National Center for Education Statistics

(NCES), the Integrated Postsecondary Education Data System (IPEDS), and the American Council for Construction Education (ACCE). These datasets will provide a statistical foundation for understanding trends in African American participation within accredited construction management programs. Additionally, labor market data, including employment trends and workforce demographics, will be gathered from the Bureau of Labor Statistics (BLS) and the National Association of Home Builders (NAHB).

To supplement institutional and labor market data, African American students currently enrolled in HBCU CEPs will be recruited to complete the Factors Influencing Pursuit of Higher Education (FIPHE) to assess their motivations for attending an HBCU and pursuing construction management as a field of study and the Student Adjustment to College Questionnaire (SACQ) to search for commonalities that lead to retention and success in CEPs at HBCUs. Instructors in these CEPs will be enlisted to assist with recruitment and offer incentives such as extra credit for students submitting complete surveys. Outreach to students through construction course instructors and email will target a sample of at least eight to fifteen students from each ACCE accredited HBCU CEP.

Qualitative data will be collected through semi-structured interviews with African American students, faculty members, and industry professionals. Again, as with the surveys, outreach to students through construction course instructors and email will target a sample of at least eight to fifteen students from each ACCE accredited HBCU CEP as well as one to three faculty members from each of the subject programs. Student interviews will aim to capture nuanced perspectives on the existing experiences and challenges faced by minority students in construction management education and the workforce, while faculty interviews will aim to provide insights into institutional efforts to recruit and support diverse student populations, while

industry professionals will shed light on workplace barriers and initiatives designed to promote inclusion.

Ethical integrity is a cornerstone of this study, ensuring that all research activities are conducted responsibly and with respect for participants. Prior to data collection, approval will be obtained from the Institutional Review Board (IRB) to guarantee compliance with ethical research standards. Participants were fully informed about the study's purpose, procedures, and their rights, including the voluntary nature of their involvement and the ability to withdraw at any time without repercussions. Informed consent forms were provided and signed, emphasizing confidentiality and the measures taken to protect their privacy. To ensure anonymity, all identifiable data will be removed, and responses will be coded and stored securely, minimizing risks associated with participation.

Given the sensitive nature of topics related to systemic inequities and underrepresentation, particular care will be taken to create an inclusive and nonjudgmental environment during interviews and surveys. Additionally, efforts will be made to accommodate participants' schedules and preferences to reduce any burden associated with participation. By adhering to these ethical principles, the study will ensure the validity and reliability of its findings while respecting the dignity and rights of all involved.

Data Analysis

Data analysis in this study will be carried out in two phases, aligned with the mixed methods approach. Quantitative data from NCES, IPEDS, ACCE, BLS, and NAHB will be cleaned, coded, and analyzed using descriptive statistics and comparative analysis to identify trends and disparities in African American enrollment, retention, and graduation rates in accredited

construction management programs. Cross-tabulations and regression analysis may also be employed to explore relationships between institutional characteristics and student outcomes. Survey data from the FIPHE and SACQ instruments will be analyzed using statistical software to identify common motivational factors and patterns of adjustment that may influence academic persistence and program completion among African American students at HBCU CEPs.

Qualitative data from interviews will be transcribed, coded, and thematically analyzed to identify recurring narratives and insights related to institutional support, student experiences, and industry perceptions of inclusion. A constant comparative method will be used to refine themes across participant groups, ensuring that student, faculty, and industry perspectives are considered in relation to one another. NVivo or a similar qualitative analysis tool will support the organization and synthesis of interview data. Integrating findings from both quantitative and qualitative strands will allow for triangulation of data, strengthening the credibility and depth of the study's conclusions. This approach ensures that both the numbers and the lived experiences behind them are fully explored to inform meaningful strategies that advance fairness in construction management education and careers.

Opportunities for Future Study

The sample size for this study is relatively small, particularly for qualitative data, which relies on semi-structured interviews with a select group of students, faculty, and industry professionals. While these interviews are expected to provide rich, detailed insights, the findings may not fully capture the variety of experiences across different regions, institutions, or demographic groups. Expanding the sample size in future studies could offer a broader perspective and strengthen the generalizability of the results.

Furthermore, the reliance on self-reported data from surveys and interviews introduces the potential for response bias, where participants may provide socially desirable answers rather than candid reflections. Addressing these limitations in future research through larger, more diverse samples and multi-institutional comparisons will be crucial for validating and expanding upon the findings of this study.

Expected Results

The study anticipates identifying key institutional and systemic barriers affecting African American student participation in CEPs. Quantitative findings are expected to highlight disparities in enrollment and graduation rates between HBCUs and Predominantly White Institutions (PWIs), while qualitative data may reveal the significance of mentorship, financial aid, and industry engagement in shaping student outcomes. The research aims to develop a framework that outlines best practices for enhancing HBCU CEPs, including strategies for strengthening industry partnerships, improving academic support, and increasing access to career development opportunities.

Conclusion and Discussion

Expanding the role of HBCUs in construction management education is essential for addressing workforce shortages while creating pathways for African American students to enter and advance in the industry. This study contributes to the discourse on workforce diversification by offering evidence-based recommendations for improving HBCU CEPs and increasing African American representation in construction management careers.

The findings underscore the need for directed recruitment efforts, enhanced institutional support, and sustained industry collaboration. By implementing the proposed framework, HBCUs can play a more significant role in shaping a representative and skilled construction management workforce, ultimately contributing to economic mobility and industry innovation.

Additionally, this study highlights the necessity of policy advocacy to secure equitable funding and institutional support for HBCU CEPs. Future research should explore the long-term impact of industry collaborations, mentorship programs, and legislative changes on the sustainability of these programs. Through these efforts, HBCUs can continue to serve as key drivers of educational and professional success for African American students in construction management.

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