

1 Introduction—Professional Education at Historically Black Colleges and Universities

Trends, Experiences, and Outcomes

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Introduction

Over the last two decades, scholars have learned a considerable amount about the enrollment, completion, and experiences of Black students who attend Historically Black Colleges and Universities (HBCUs). In general, HBCUs have been credited with cultivating supportive and engaging environments where Black students have a strengthened self-esteem and stronger sense of racial pride.¹ Further, the literature is clear that Black students who attend HBCUs perform better academically, build more meaningful relationships with faculty and staff, are more engaged in the campus environment, and have a better sense of belonging and connection than Black students who attend predominantly White institutions [PWIs].² Simply put, HBCUs have been cited as being able to provide Black students, at both undergraduate and graduate levels, with an exceptional educational experience, often unachievable at PWIs.³

However, much of the aforementioned research has concentrated on HBCU student experiences at the undergraduate level, often examining the comparative experiences and outcomes of Black undergraduate students attending HBCUs to those attending PWIs.⁴ That is not to say the literature is absent of research that has considered racial and ethnic minority student populations exclusive to the doctoral level. Recent studies have explored the experiences and lives of persons of color in STEM doctoral programs,⁵ the advancement of the pipeline or school choice-related matters,⁶ and the cultural experiences of Black and Latino students.⁷ But, despite the important contributions of these studies, research about the experiences of graduate students at HBCUs is generally limited. In fact, many scholars in the higher education community may have erroneously assumed that the research on undergraduate students at HBCUs defined the experiences of graduate students at HBCUs. Such an assumption cannot be further from the truth. For example, in his theory of student departure, Tinto⁸ discussed the importance of undergraduate students becoming academically and socially integrated

into the university to facilitate retention and persistence. Because graduate students may have different needs, obligations, experiences, and expectations than undergraduate students,⁹ certain aspects of his theory may be less applicable to graduate students,¹⁰ specifically at HBCUs.

Though national data on doctoral degree attainment are generally available, extant research has often failed to examine key dimensions of doctoral students' experiences regarding their development and progress in academic programs.¹¹ In addition, when examining the literature as a whole, relatively few studies have concentrated on specific factors influencing the experiences and outcomes for Black doctoral students, despite continuing evidence of growth in Black doctoral program enrollment and attainment.¹² Notwithstanding, there is a recent growing body of literature examining experiences and factors that impact the success of Black doctoral students.¹³ But, much of the research that actually has examined Black doctoral students has not necessarily investigated the implications of an HBCU setting.¹⁴ And, while the aforementioned scholarship does indeed provide considerations for understanding doctoral education from multiple lenses, it falls short of a comprehensive view on doctoral education exclusive to the professions—or doctoral programs focused on preparing graduates for specific careers in areas such as medicine, law, and social work—at HBCUs. This research is important, particularly since earning an advanced degree, particularly in a professional area of study, has significant implications on our [US] competitiveness in the global economy. In fact, scholars have argued that a graduate degree will become the new bachelor's degree, serving as the minimal education credential that high-skills employers require.¹⁵

The foci of research on graduate study for students of color have been relatively narrow. Thus, substantial gaps in the knowledge base exist. Given that HBCUs, in particular, play a significant role in the number of Blacks who earn doctorates, additional study is warranted.¹⁶ Even when examining Black doctoral education in an HBCU setting, researchers have often concentrated on traditional liberal arts or STEM programs of study, and less on professional programs such as medicine, law, or dentistry.¹⁷ These gaps in the literature fail to expand the knowledge base of Black student trends, outcomes, and experiences at HBCUs that could prove critical to matriculation and completion of professional advanced degrees for these students. In addition, the literature offers minimal understanding for current and prospective Black students to deal with the personal and professional challenges of doctoral study, as well as limited strategies and best practices for faculty and administrators to best support these students. Thus, this monograph serves several critical purposes. First, it provides a critical review of the historical nature of professional programs at HBCUs and the programs' impact on a global society. Second, research study findings, personal narratives, and theoretical analyses are offered to provide further context about the experiences of Black doctoral students in specific disciplines, outcomes for enrollment and degree attainment, relationships with faculty and advisors,

research opportunities, and the role of faculty and socialization processes in promoting positive Black doctoral student development and professional growth. Finally, the monograph addresses the future of professional education at HBCUs and what fundamental aspects are needed to ensure their survival, competitiveness, and growth.

Having established the relevancy and necessity of this monograph, the subsequent sections of this introductory chapter will better contextualize the need for this volume by providing a brief history on HBCUs in America, a review of the extant literature on Black graduate education, inclusive of the role of HBCUs and their professional programs of study, and the organization of the monograph's content.

Brief History of HBCUs in America

Historically Black Colleges and Universities (HBCUs) are federally designated as educational institutions, founded prior to 1964, that provide access to education for Black students.¹⁸ Three HBCUs—two in Pennsylvania (Cheyney University and Lincoln University), and one in Ohio (Wilberforce University)—were among the first HBCUs established before the Civil War.¹⁹ The *Morrill Act* of 1890, which required states to establish separate land grant colleges for Blacks if they were precluded from attending existing land grant schools, played a vital role in the proliferation of HBCUs. Specifically, this legislation resulted in the establishment and financing of 17 public HBCUs.²⁰ Today, there are 105 HBCUs represented in six distinct Carnegie Classifications that include Research Universities (10%), Master's Universities (23%), Baccalaureate Universities (48%), Medical Schools (2%), Seminary (4%), and Associate Institutions (13%).²¹

While most HBCUs primarily serve undergraduate students, the majority of HBCUs (60%) offer graduate or professional degrees.²² America's HBCUs, in their history, have traditionally been the institutions with the largest impact on the production of minorities with graduate and professional degrees. This was largely because in the early years, African Americans and other minorities were not welcomed to apply at most PWIs, whether graduate or professional.²³ Graduate and professional schools emerged during the 1940s because of several court cases brought by African Americans who had been denied entry into graduate school at all-White public universities in their states.²⁴ As a result of the lawsuits, legislators in these states opted to open publicly supported graduate and professional schools at HBCUs rather than integrate the all-White schools.²⁵ This led to the birth of a number of professional and graduate schools at HBCUs.

Examining Black Graduate Education

In general, recent trends have shown indicators for continual and impressive progress for the future of Blacks in graduate programs, especially at the

doctoral level.²⁶ In fact, there has been a 70% increase in the number of doctorates awarded to Blacks over the past 20 years.²⁷ The literature has offered a variety of factors that may have contributed to this increase, including strengthening the pipeline of aspiring Black doctorates, particularly in STEM, at the undergraduate level,²⁸ employing a Black feminist approach to doctoral advising,²⁹ and providing comprehensive support for doctoral students who are at the intersection of identities, especially gay men.³⁰ In addition, research has confirmed that institutional characteristics such as type, racial and ethnic composition, selectivity, and geographic location also matter in terms of producing successful minority doctoral students.³¹ In fact, it has been suggested that earlier aspects of a doctoral student's educational pipeline, specifically attending an HBCU, also play a significant role in preparing Black students for doctoral success.³²

While HBCUs represent just 3% of US higher education institutions, and despite relatively smaller endowments and lower institutional resources, HBCUs have been a critical force in the production of Black advanced degree recipients. For example, the National Center for Education Statistics [NCES] reported that HBCUs produced 6,900 master's recipients (5,034 for Blacks), accounting for roughly 10% of master's degrees awarded to Black students that year.³³ HBCUs have also been a principal producer of Black doctorates: between 1992–1993 and 1997–1998, HBCUs increased their number of doctoral graduates by 15.2%.³⁴ By 2012–13, the percentage of Black doctoral degree recipients who received their degrees from HBCUs was approximately 12%.³⁵

Between 2005 and 2009, Howard University, Morgan State University, Jackson State University, and Clark Atlanta University—all HBCUs—placed first, fourth, sixth, and eighth, respectively, among top ten universities awarding doctorate degrees to Blacks.³⁶ These statistics are remarkable given that, at times, doctoral degree production among Blacks at these aforementioned HBCUs has exceeded doctoral degree production among Blacks at institutions that have enjoyed much longer histories of graduate education and have considerably better publicly funded research profiles, including such notables as Harvard University, Temple University, Georgia State University, and Columbia University.³⁷

In addition, HBCUs are a powerhouse in Black professional doctorate production. In fact, more than 80% of all Black Americans who received degrees in medicine and dentistry were trained at the two traditionally Black institutions of medicine and dentistry—Howard University and Meharry Medical College.³⁸ And, when examining data for professional doctorates in general (i.e., medicine, law, veterinary medicine, etc.), HBCUs remain leaders: in 2016, Howard University, Florida Agricultural and Mechanical University, Meharry Medical College, Texas Southern University, Southern University Law Center, and North Carolina Central University ranked first, second, third, fifth, seventh, and eighth, respectively.³⁹

Organization of this Monograph

This introductory chapter notes the critical purposes of this monograph, contextualizes the need for this volume by providing a brief history on HBCUs in America, including the establishment and proliferation of professional education programs, and reviews the extant literature on Black graduate education, inclusive of the role of HBCUs and their professional programs of study. In Chapter Two, "Historically Black Colleges' and Universities' Role in Preparing Professional Students for the Global Workforce," Larry Walker and Ramon Goings affirm the enduring relevancy of HBCUs through an exploration of HBCU exosystems and how they contribute to positive outcomes for Black graduate students after they enter the workforce. This chapter concludes with recommendations for administrators, faculty, and staff.

Chapter Three, "Securing the Future: Creating 'Social Engineers' for societal Change at Historically Black College and University Law Schools," authored by Steve D. Mobley, Jr., Sunni L. Solomon II, and A. C. Johnson, discusses the impact of HBCU law schools. The authors argue that though small in number, HBCU law schools occupy the role of training social engineers in the nuances of legal practice. Specifically, the authors critically note that HBCU law schools do not just produce lawyers. Instead, they generate leaders who are primed and ready to advance the cause of civil rights with the same passion and commitment of previous generations of graduates, faculty, and administrators. This chapter concludes with thought provoking implications for practice.

In Chapter Four, "Factors for Effective Recruitment, Mentorship, Development, and Retention of Education Doctoral Students," Cheron Davis examines teacher education programs at HBCUs. Today's 21st century K-12 school classrooms are microcosmic representations of the increasingly diverse population that characterizes much of the United States. The post-racial narrative suggests that we, as teacher educators, are training teachers to create learning environments that enable student members to engage in dialogue reflective of the unique sociocultural experiences that they bring to the setting. Research and anecdotes from the field suggest that the reality is far different. Davis proposes a reconceptualization of the current model of recruitment, mentorship, development, and retention of HBCU education doctoral candidates who will eventually become teacher educators and educational leaders, as well as policymakers.

In Chapter Five, "Historically Black Medical Schools: Addressing the Minority Health Professional Pipeline and the Public Mission of Care for Vulnerable Populations," Nycal Anthony-Townsend, Bettina M. Beech, and Keith C. Norris discuss the historical nature of health professional education at HBCUs and the impact of these programs on society. Their chapter concludes with recommendations regarding how HBCUs can best design

the future of education programs to optimize the preparation and contribution of future Black doctoral health professionals.

Nadelka Bishop, Comfort Okpala, and C. Dean Campbell highlight the importance of research training and research mentoring in doctoral programs at Historically Black Colleges and Universities in Chapter Six, "Staying in Focus: Research, Self-Efficacy, and Mentoring among HBCU Professional Doctorates." Considering that Historically Black Colleges and Universities are the highest producers of Black doctoral degree recipients, it is valuable to evaluate the research training that occurs between major professors/advisors and PhD candidates. The themes in this chapter explore concepts of research self-efficacy, the purpose and responsibilities of HBCUs, mentoring relationships, and research training environment theory. By highlighting the relationship as well as the method utilized to increase research self-efficacy through proper research training, the authors argue that HBCUs can find additional methods designed to increase diverse researchers as well as researchers with diverse cultural perspectives.

Chapter Seven, entitled "Social Work Education and Cultural Competence: The Role of Historically Black Colleges and Universities," focuses on social work programs at HBCUs. Authors Jennifer Johnson and Zuleka Henderson focus on the history of social work education at HBCUs, their focus on culturally relevant pedagogy, and the ways their core missions are reflected in the mission/vision of PhD programs at HBCUs. Their chapter concludes with recommendation on what PWIs can learn from this approach in the ways they design/structure social work education programs (MSW/PhD) to meet the demands of the profession and the needs of individuals and communities from diverse backgrounds.

In Chapter Eight, "Mentoring Experiences of Graduate Students in Professional Programs," Sean Robinson and Charmaine Troy draw on a series of phenomenological interviews with minority students attending professional degree programs at HBCUs to highlight the essential support structures that might aid in their retention and persistence, organizational fit, and career decisions, as well as point out HBCUs' opportunities for better expenditure of individual and institutional resources.

In Chapter Nine, Rikeshia L. Fry Brown, Alonzo M. Flowers III, Adriel A. Hilton, and Michelle DeJohnette utilized ethnographic narrative case studies to extract themes from ten individuals about their experiences pursuing graduate and professional education at HBCUs. Findings indicated that students attend HBCUs for a variety of reasons, including location, cost, and convenience. However, beyond these common rationales for college choice, respondents also indicated that they attended HBCUs as a result of their historical contribution to African American communities as well as the supportive environment fostered within these institutions. Finally, findings also indicated that, while students often select HBCUs for graduate and professional school, because they are HBCUs, they are aware of challenges associated with those decisions.

In Chapter Eleven, "In Excess of Legitimate Need: Title III and the Development of Online and Degree Programs at Morgan State University," Maurice C. Taylor discusses creative alternatives for advancing professional doctorate programs at a public HBCU, in the absence of state funding and support. Maryland's failure to provide funding and to support program development for Morgan State University and the state's other three Historically Black Colleges and Universities (HBCUs) comparable to that of the state's traditionally White universities is grounded in the enduring history of *de jure* and *de facto* segregation throughout Maryland. The racial animus was particularly acute in Baltimore, where both Morgan and Coppin State Universities are located. The Corporation for Enterprise Development notes that policymakers at all levels have influenced current economic and racial disparities in Baltimore. The focus of this chapter is how, in the absence of state support, Morgan was able to utilize the Department of Education's Title III Program to develop its graduate, particularly its doctoral, and its online degree programs.

In the final chapter, "Emerging Themes, Questions, and Implications for Professional Education at Historically Black Colleges and Universities," Adriel A. Hilton, Tiffany Fountaine Boykin, and Robert T. Palmer note the importance of policymakers' use of research to ensure that HBCUs are funded adequately. In addition, this chapter highlights how HBCUs continue to play a vital role in advancing the Black intelligentsia. Finally, this chapter concludes by noting that HBCUs are not only essential to Black professional degree attainment, but also to the nation's preservation and continuation of its global leadership role.

Conclusion

Although HBCUs have made considerable strides in the production of Black doctorates over the last 30 years, progress has not kept pace with national and global needs. Blacks' total share of doctorate recipients increased from 3.8% in 1977 to only 4.8% in 2000. And, as of 2010, Blacks' share increased to just 7.4%, considerably lagging behind that of White students. In fact, in 2010, Blacks earned 10,417, or 7.4%, of all doctorates conferred; Whites earned 104,426, or 74.3%.⁴⁰ Student outcomes at HBCUs have a national impact on the number of Blacks who are primed to enter into and advance within the workforce and contribute to the American economy, and ultimately America's ability to compete globally.⁴¹ Thus, the HBCU remains a vital necessity for increasing Blacks' share of earned advanced degrees, and careful examination of the factors that serve to support or restrain the capacity of HBCUs to develop professional education programs is warranted.

This monograph does not attempt to uncover or identify a disparity between doctoral student achievements at HBCUs versus predominantly White, and other, institutions; nor is it designed to compare the experiences

of doctoral students at one HBCU over another. Independent of comparisons, the influences that promote (or challenge) success among HBCU Black doctoral students in professional graduate programs are independently important, and thus warrant continued examination and visibility in the larger higher education conversation. This monograph does serve as a champion of advocacy for the continued necessity and relevance of the HBCU. The HBCU has and continues to serve as a bold catalyst in the production of Black advanced professional degree holders, thus adding to the success of higher education, the economy, and to the civic and social order of future generations in America.

Notes

- 1 Hall and Closson 2005; Hirt et al. 2006; Palmer and Gasman 2008
- 2 Jackson 2001; Palmer and Gasman 2008; Terenzini et al. 1997
- 3 Allen 1992; Fountaine 2012
- 4 Cooper and Dougherty 2015; Fries-Britt and Turner 2002; Pascarella and Terenzini 2005; Weddle-West, Hagan, and Norwood 2013
- 5 Upton and Tanenbaum 2014
- 6 Joseph and Feldman 2009
- 7 Gildersleeve, Croom, and Vasquez 2011
- 8 Tinto 1993
- 9 Bean and Metzner 1985; Ogren 2003
- 10 Lovitts 2001
- 11 Nerles and Miller 2006
- 12 Survey of Earned Doctorates 2014
- 13 Gildersleeve, Croom, and Vasquez 2011; Felder and Barker 2013; Felder, Severson, and Gasman 2014; Okahana et al. 2016
- 14 Ellis 2000; Palmer, Hilton, and Fountaine 2012; Nerad and Miller 1996; Nerles and Miller 2006; Turner and Thompson 1993
- 15 Wendler et al. 2010
- 16 Palmer, Hilton, and Fountaine 2012
- 17 Fountaine 2012; Palmer, Hilton, and Fountaine 2012
- 18 Gasman, Baez, Turner 2008
- 19 Albritton 2012
- 20 Allen and Jewell 2002; Provasnik Shifer, and Snyder 2004
- 21 Lee, Jr. and Keys 2013
- 22 Lee, Jr. and Keys 2013
- 23 Swygert 2004
- 24 Gannon 1996
- 25 *Sweet's v. Painter 1950; Hawkins v. Board of Control 1950*
- 26 Golde and Walker 2006; National Opinion Research Center 2007; Roach 1997; Survey of Earned Doctorates 2014; Thompson 1999
- 27 Survey of Earned Doctorates 2014
- 28 Matson and Hrabowski 2004
- 29 Jones, Wilder, and Lampkin 2013
- 30 Means et al. 2016
- 31 Lundy-Wagner Vultaggio, and Gasman 2013
- 32 Lundy-Wagner, Vultaggio, and Gasman 2013
- 33 National Center for Education Statistics 2005
- 34 Sr. John 2001

- 35 National Center for Education Statistics 2015
- 36 Taylor 2012
- 37 Taylor 2012
- 38 US Department of Education, Office of Civil Rights 1991
- 39 *Top 100 Degree Producers 2016: Graduate and Professional*
- 40 National Center for Education Statistics 2012
- 41 Lee, Jr. and Keys 2013

Bibliography

- Albritton, Travis. "Educating our own: The historical legacy of HBCUs and their relevance for educating a new generation of leaders." *Urban Review*, 44 no. 2 (2012): 311-331.
- Allen, Walter R. "The color of success: African American college student outcomes at predominantly White and historically black public colleges and universities." *Harvard Educational Review*, 62 no. 1 (1992): 26-44.
- Allen, Walter R., and Joseph O. Jewell. "A backward glance forward: Past, present, and future perspectives on historically black colleges and universities." *Review of Higher Education*, 25 no. 3 (2002): 241-261.
- Bean, John P., and Barbara Metzner. "A conceptual model of nontraditional undergraduate student attrition." *Review of Educational Research*, 55 (1985): 485-540.
- Cooper, Joseph N., and Shaun Dougherty. "Does race still matter? A post bowl championship series (BCS) Era examination of student athletes' experiences at a division I Historically Black College/University (HBCU) and Predominantly White Institution (PWI)." *Journal of Issues in Intercollegiate Athletics*, 8 (2015): 74-10.
- Ellis, Evelyn M. *Race, gender, and the graduate student experience: Recent research*, 2000. Retrieved February 10, 2007, from www.diversityweb.org/Digest/F00_graduate.html
- Felder, Pamela P., and Marco Barker. "Extending Bell's concept of interest convergence: A framework for understanding the African American doctoral student experience." *International Journal of Doctoral Studies*, 8 (2013): 1-20.
- Felder, Pamela P., Howard Stevenson, and Marybeth Gasman. "Understanding race in doctoral student socialization." *International Journal of Doctoral Studies*, 9 (2014): 21-42. Retrieved from <http://jds.org/Volume9/IJDSv9p021-042Felder0323.pdf>
- Fountaine, Tiffany Parrice. "The impact of faculty-student interaction on black doctoral students attending historically black institutions." *The Journal of Negro Education*, 81 no. 2 (2012): 136-147.
- Fries-Britt, Sharon, and Bridget Turner. "Uneven stories: Successful black colleges at a black and a white campus." *The Review of Higher Education*, 25 no. 3 (2002): 315-330.
- Gannon, Michael. *The new history of Florida*. Gainesville, FL: University of Florida Press, 1996.
- Gasman, Marybeth, Benjamin Baez, Caroline Sorello, and Viernes Turner. *Understanding minority-serving institutions*. Albany, NY: State University of New York Press, 2008.
- Gildersleeve, Ryan E., Natasha N. Croom, and Phillip L. Vasquez. "Am I going crazy? A critical race analysis of doctoral education." *Equity & Excellence in Education*, 44 no. 1 (2011): 93-114.

- Goide, Chris, and George Walker. Envisioning the future of doctoral education: Preparing stewards of the discipline. San Francisco: Jossey-Bass, 2006.
- Hall, Brenda, and Rosemary Closson. "When the majority is the minority: White graduate students' social adjustment at a historically black university." *Journal of College Student Development*, 46 no. 1 (2005): 28-42.
- Hawkins v. Board of Control 1950.
- Hirt, Joan B., Terrell L. Strayhorn, Catherine Amelink, and Belinda Bennett. "The nature of student affairs work at historically black colleges and universities." *Journal of College and Student Development*, 47 no. 6 (2006): 661-676.
- Jackson, Jerlando F. L. Retention of African American administrators at predominantly White institutions: Using professional growth factors to inform the discussion. Paper presented at the Annual Meeting of the Association for the Study of Higher Education, Richmond, VA. (ERIC Document Reproduction Service No. ED 457 818), 2001.
- Jones, Tamara B., JeffriAnne Wilder, and La'Tara Osborne-Lampkin. "The race against time: Preparing black students for the changing landscape of higher education." *The Journal of Negro Education*, 82 no. 3 (2013): 326-338.
- Joseph, Mark, and Jessica Feldman. "Creating and sustaining successful mixed-income communities: Conceptualizing the role of schools." *Education and Urban Society*, 41 no. 6 (2009): 623-652.
- Lee Jr., John Michael, and Sammad Wes Keys. Repositioning HBCUs for the future: Access, success, research & innovation. APLU Office of Access and Success Discussion Paper, 1, 2013.
- Lovitts, Barbara E. "Being a good course-taker is not enough: A theoretical perspective on the transition to independent research." *Studies in Higher Education*, 30 no. 2 (2005): 137-154.
- Lovitts, Barbara E. Leaving the ivory tower: The causes and consequences of departure from doctoral study. New York: Rowman and Littlefield Publishers, Inc., 2001.
- Lundy-Wagner, Valerie, Julie Vultaggio, and Marybeth Gasman. "Preparing underrepresented students of color for doctoral success: The role of undergraduate institutions." *International Journal of Doctoral Studies*, 8 (2103): 151-172. Retrieved from <http://ijds.org/Vol8/ID5v8p151-172Lundy-Wagner0381.pdf>
- Matron, Kenneth I., and Freeman Hrabowski III. "Increasing the number of African American PhDs in the sciences and engineering: A strengths-based approach." *American Psychologist*, 59 no. 6 (2004): 547-556.
- Means, Darris R., Cameron C. Beary, Reginald A. Blockett, Michael Bumbrey, Robert Canada II, and Tony Cawthorn. "Resilient scholars: Reflections from black gay men on the doctoral journey." *Journal of Student Affairs, Research and Practice*, 54 no. 1 (2016): 109-120. Retrieved from <http://dx.doi.org/10.1080/19496591.2016.1219265>
- National Center for Education Statistics. Selected statistics on degree-granting historically black colleges and universities, by control and level of institution: Selected years, 1990 through 2013, 2015. Retrieved from http://nces.ed.gov/ipeds/data/d14/tables/d14_313_30.asp?current=eyes
- National Center for Education Statistics. The condition of education 2012. Washington, DC: US Department of Education, 2012. Retrieved from <https://nces.ed.gov/fastfacts/display.asp?id=72>
- National Center for Education Statistics. Doctor's degrees conferred by degree-granting institutions, by sex, racial/ethnic group, and major field of study: 2003-04, 2005. Retrieved from <http://nces.ed.gov/ipeds/data/d405/tables/xls/tabl268.xls>
- National Opinion Research Center. (2007). Survey of earned doctorates: Summary report 2006. Washington, DC: National Academy Press. Retrieved from www.norc.umd.edu/NR/rdonlyres/C22A3F40-0BA2-4993-A6D3-5E65939EEDC3/065SRFinalVersion.pdf
- Nerad, Marsi, and Debra S. Miller. "Increasing student retention in graduate and professional programs." *New Directions in Institutional Research*, 92 (1996): 61-76.
- Netles, Michael T., and Catherine M. Miller. *Three magic words: Getting to Ph.D.* Baltimore, MD: The Johns Hopkins University Press, 2006.
- Ogren, Christine A. "Rethinking the 'nontraditional' student from a historical perspective: State normal schools in the late nineteenth and early twentieth centuries." *The Journal of Higher Education*, 74 no. 6 (2003): 640-664.
- Okahana, Hirotao, Jeff Allum, Pamela P. Felder, and Renata Tall. Implications for practice and research from Doctoral Initiative on Minority Attrition and Completion (CGS Data Sources PLSU #16-01). Washington, DC: Council of Graduate Schools, 2016.
- Palmer, Robert T., Adriel A. Hilton, and Tiffany P. Fournaine (Eds.). *Black graduate education at historically black colleges and universities: Trends, experiences, and outcomes*. New York/London: Information Age Press, 2012.
- Palmer, Robert, and Marybeth Gasman. "It takes a village to raise a child? The role of social capital in promoting academic success for African American men at a black college." *Journal of College Student Development*, 49 no. 1 (2008): 52-70.
- Pascarella, Ernest T., and Patrick T. Terenzini. *How college affects students: A third decade of research*. San Francisco: Jossey-Bass, 2005.
- Provasnik, Stephen, Linda L. Shafar, and Thomas D. Snyder. *Historically universities, 1976 to 2001 (NCES 2004-062)*. Washington, DC: National Center for Education Statistics, 2004. Retrieved from <http://publ.LP554090>
- Roach, Ronald. "Clouded optimism." *Black Issues in Higher Education*, 14 no. 11 (1997): 16-19.
- St. John, Eric. "More doctorates in the house—More African American students are receiving doctorates." *Black Issues in Higher Education*. Retrieved July 6, 2001, from http://findarticles.com/particles/mi_m0DXKis_10_17/a1_63817017
- Survey of Earned Doctorates. *Doctorate recipients from US Universities: 2014*. National Center for Science and Engineering Statistics Directorate for Social, Behavioral and Economic, Arlington, VA. Retrieved from <http://www.nsf.gov/statistics/2016/nsf16300/>.
- Sweatt v. Painter, 1950.
- Swygert, H. Patrick. "The accomplishments and challenges of historically black colleges and universities." 2nd Annual African American Leadership Summit. Washington, DC, 2004.
- Taylor, Maurice C. "On a wing and a prayer: The future of graduate education at HBCUs." In Palmer, Robert T., Adriel A. Hilton, and Tiffany P. Fournaine, *Black graduate education at historically black colleges and universities* (pp. 223-252). New York: Information Age Press, 2012.

- Terenzi, Patrick T., Patricia M. Yaeger, Louise Bohr, Ernest T. Pascarella, and Nora Amaury. *African American college students' experiences in HBCUs and PWIs and learning outcomes*. University Park, PA: National Center on Postsecondary Teaching, Learning, and Assessment, 1997.
- Thompson, Gail L. "What the numbers really mean: African American underrepresentation at the doctoral level." *Journal of College Student Retention*, 1 no. 1 (1999): 23-40.
- Tinto, Vince. *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago, IL: University of Chicago Press, 1993.
- "Top 100 Degree Producers 2016: Graduate and Professional." *Diverse*. Retrieved from <http://diverseeducation.com/top100/GraduateDegreeProducers2016.php>
- Turner, Caroline, Sotello Viernes, and Judith Rann Thompson. "Socializing women doctoral students: Minority and majority experiences." *Review of Higher Education*, 16 no. 3 (1993): 355-370.
- Upton, Rachel and Courtney Tanenbaum. The role of historically black colleges and universities as pathway providers: Institutional pathways to the STEM PhD among black students. American Institutes for Research, 2014. Retrieved from www.air.org/sites/default/files/downloads/report/Role%20of%20HBCUs%20in%20STEM%20PhDs%20for%20Black%20Students.pdf
- US Department of Education, Office of Civil Rights. *Historically black colleges and universities and higher education desegregation*, 1991. Retrieved from www2.ed.gov/about/offices/list/ocr/docs/hq9511.html
- Weddle-West, Karen, Hayden Joseph Waldon, and Kristie M. Norwood. "Impact of college environments on the spiritual development of African American students." *Journal of College Student Development*, 45 no. 3 (2013): 299-314.
- Wendler, Cathy, Brent Bridgeman, Fred Cline, Catherine Millett, JoAnn Rock, Nathan Bell, and Patricia McAllister. The path forward: The future of graduate education in the United States. Report from the commission on the future of graduate education in the United States. Princeton, NJ: Educational Testing Service, 2010.