ORIGINAL ARTICLE

Pulling back the veil: What determines HBCU campus enrollments?

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Abstract

Historically black colleges and universities (HBCUs) are among the least researched sectors of American higher education. This article addresses a portion of this knowledge deficit by focusing on the determinants of the full-time equivalent enrollments of 50 HBCUs between fiscal year FY 2005 and FY 2018 and then comparing them to a broad sample of 182 non-HBCUs. The most noteworthy specific results generated by our analyses are: (1) increased recruitment of white students by HBCUs may not hold the key to HBCU enrollment success; (2) the incomes of the households from which students emanate have a major positive influence on HBCU enrollments; (3) HBCU campuses whose resource allocations pay more attention to the instruction and student services have higher enrollments; (4) intercollegiate athletic expenditures in general and the operation of an Football Championship Subdivision (FBS)-level football program, in particular, are massively important determinants of HBCU enrollments; and (5) the predicted FY full-time equivalent enrollment (FTE) of an HBCU is less than one-half of what would hold true for a comparably situated non-HBCU.

KEYWORDS
college enrollment, HBCU, intercollegiate athletics

Headcount college enrollments in the United States have fallen 10 years in a row (Saul 2022), and the COVID-19 pandemic has accelerated what now must be labeled a long-term decline. Historically black colleges and universities (HBCUs), the focus of this article, have not been immune to this trend. Collectively, HBCU headcount enrollments fell roughly 7 percent during the 2011–2020 decade (United States Department of Education 2021a). It remains to be seen whether the recent public revelations and discussions of widespread racist practices and incidents will cause potential black students to look upon HBCUs more favorably and reverse this negative trend.

HBCUs represent one of the least researched sectors of American higher education. There has been comparatively little rigorous research on matters such as how sensitive HBCU students are to rising higher

education costs, institutional graduation rates, institutional Scholastic Aptitude Test (SAT) scores, and external economic conditions. Do their football teams attract students? These are among the subjects we tackle in this article.

A BRIEF REVIEW OF THE LITERATURE

The determinants of collegiate enrollments have been studied many times, but only limited attention has been given to enrollments on HBCU campuses. Sissoko and Shai (2005) relied upon time-series data to explain collective headcount enrollment at HBCUs, 1976–1998. The pair found total enrollment at HBCUs as a group to be both price- and financial aid-sensitive as well as responsive to black household incomes and the size of black populations. However, analyses focusing on individual campuses are needed to provide a more refined picture of the circumstances facing HBCUs.

HBCUs frequently serve lower-income populations, and research suggests that this has a significant impact on aspects of performance such as graduation rates (Gordon et al. 2020; Nichols and Evans-Bell 2017). For this reason, Hardy, Kaganda, and Aruguete (2019) took household incomes into account when they examined the ability of HBCUs to provide their students with upward economic mobility.

A few analysts have attributed falling HBCU market shares in part to the perceptions of some that the academic quality of HBCUs is inferior (Gasman and Bowman 2011; Malveaux 2013). Hardy, Kaganda, and Aruguete (2019) suggested that negative portrayals of HBCU in mainstream media deter black students from enrolling in HBCUs.

Lynch (2016) cited three governmental policies that may have harmed HBCU enrollment: (1) more rigorous standards being applied inside the federal government's Parent PLUS Loan Program, (2) the rise of online instruction, and (3) proposed and actual mergers of HBCUs with other institutions. Lynch (2016) also suggested that some HBCUs historically have suffered from self-inflicted wounds. His list in this regard included excessive institutional inertia, a failure to diversify student bodies, a lack of administrative competency and stability, and inadequately addressing the needs of students.

Intercollegiate athletics programs traditionally have assumed influential roles at HBCUs (Hawkins et al. 2015) and plausibly affect enrollment. Those programs have been examined through the lens of critical race theory by Cheeks (2016) and Cooper, Cheeks, and Cavil (2017).

THE DATA

The centerpiece of our data is annual panel observations of 50 HBCUs (30 public, 20 private) between 2003 and 2004 fiscal year (FY; FY 2004) and 2018 and 2019 FY (FY 2019). Appendix A identifies the institutions. All observations for all variables are not available for every institution, and this reduces our sample of HBCUs to 48 in some of our estimations.

The 50 HBCUs in our sample accounted for 79.2 percent of the enrollment of 4-year, degree-granting HBCUs in FY 2018.[1] The sample includes well-known HBCU leader institutions such Hampton, Howard, Morehouse, North Carolina A&T, and Spelman but also smaller and on occasion struggling campuses such as Elizabeth City, Paul Quinn, Saint Augustine's, and Wilberforce.[2] Graph 1 reveals their locations. Taken as a group, the HBCUs in our sample experienced a 10.5 percent increase in enrollment between FY 2005 and FY 2010 but an 11.6 percent decline between FY 2010 and FY 2019 (IPEDS 2021a).

To highlight differences, we supplement the primary sample of 50 HBCUs with 182 public PWIs, subdivided into three categories: flagship state universities; large, usually influential public urban institutions whom we label "metro leaders" (e.g., the University of Central Florida); and predominantly regional institutions. While the notion of a PWI often lacks accuracy today because of the large numbers of

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[1] IPEDS reported data for 82 4-year HBCUs in FY 2018.

[2] The primary reason an HBCU was not included in our sample was the absence of critical enrollment or financial data for that campus.
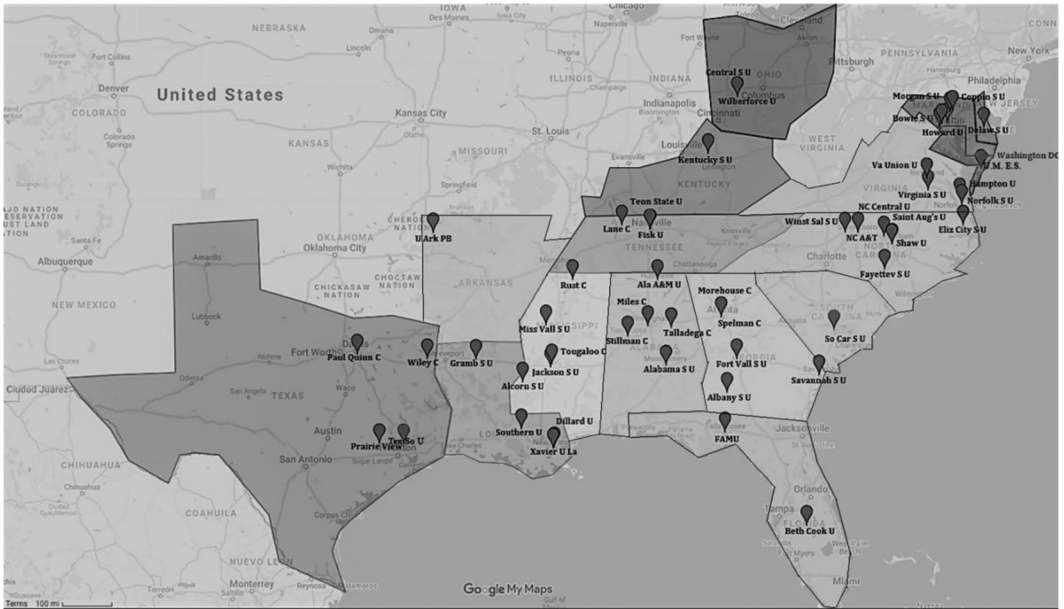
FIGURE 1 The locations of the 50 HBCUs in our sample. Credit: Faisal Mahmud

Hispanic/Latino and Asian students who now comprise higher education student bodies, we use the term nonetheless because it dominates the literature relating to HBCUs.

Our primary source is the Integrated Postsecondary Education Data System (IPEDS; U.S. Department of Education 2021a), supplemented by the College Scorecard (CS; United States Department of Education 2021b), plus other sources such as Brookings (Kulkarni and Rothwell 2015) and the Opportunity Insights Project (Opportunity Insights 2021). Both IPEDS and the CS are maintained by the U.S. Department of Education. Data from IPEDS and the CS sometimes are fallible (Jacquette and Parra 2016). Nevertheless, these data remain the best available and have been used in hundreds of empirical studies.

THE ESTIMATING MODEL

$$\log \text{FTE}_{ijk} = a + \sum_{i}^{n} \sum_{j}^{m} \sum_{k}^{p} X_{ijk} + e, \tag{1}$$

where $\log \text{FTE}_{ijk}$ = logarithm of the FY full-time equivalent student body for institution i in FY j for characteristic k; $i = 1,2,\ldots,n$ institutions; $j = 1,2,\ldots,m$ FYs ranging from FY 2005 to FY 2018; $k = 1,2,\ldots,p$ independent variable characteristics; a = constant term; b_{ijk} = estimated partial regression coefficient for institution i in FY j for characteristic k; X_{ijk} = vector of the characteristics of institution i in FY j for characteristic k; e = stochastic error term.

DEPENDENT VARIABLE

ENROLLMENT = Full-time equivalent FY enrollment. This is what we seek to explain for individual campuses from FY 2005 through FY 2018.

CATEGORIES AND SOURCES OF INDEPENDENT VARIABLES

External environmental control variables

NUMBER OF HIGH SCHOOL GRADUATES = Number of home state high school graduates (in 000s). We assume that the supply of high school graduates positively affects college enrollments (source: National Center for Education Statistics 2021b).

AREA POPULATION = Population of the institution's metropolitan area or if it is not metropolitan, its county (in 000000s). Most institutions draw students from the areas surrounding them, and therefore we expect a positive sign on this variable[3] (source: FRED, the Federal Reserve Bank of St. Louis (2021a).

UNEMPLOYMENT RATE = Average annual rate of unemployment in the institution's home state. The rate of unemployment reflects the opportunity cost of attending college such that a higher rate of unemployment should result in larger college enrollments (source: FRED 2021b).

Campus explanatory variables

PERCENT HEADCOUNT WHITE = Percent of undergraduate student body that self-identifies as white. This variable speaks to how racially integrated a campus is. We have no prediction for the sign of this variable (sources: IPEDS and CS).

PERCENT HEADCOUNT 25+ YEARS OLD = Percent of undergraduate student body that is 25+ years of age. Campuses that cast their nets more widely and recruit more mature students should have larger enrollments (sources: IPEDS and CS).

NET TUITION AND FEES = Real net tuition and fees (in 000s) received by the campus per student after deducting institutionally funded grants and scholarships. We assume that higher costs deter enrollment (sources: IPEDS and CS).

INSTRUCTION PERCENT = Instructional expenditures as a percent of the sum of instructional + student services + academic support + institutional support + research expenditures. It is an empirical question whether campuses that emphasize instruction attract more students (sources: IPEDS and CS).

STUDENT SERVICES PERCENT = Student services expenditures as a percent of the sum of instructional + student services + academic support + institutional support + research expenditures. Many HBCUs emphasize the quality of their student services, and this variable tests if such an emphasis results in larger enrollments (sources: IPEDS and CS).

STUDENT HOUSEHOLD INCOME PERCENTILE = Average decimal percentile nationally of the incomes of student households. Students coming from more wealthy households are more likely to be retained and graduated (source: Opportunity Insights)

GRADUATION RATE = Six-year graduation rate of first-time, full-time undergraduate students. We assume that students are attracted to institutions that have higher graduation rates (Sources: IPEDS and CS).

SAT AVERAGE = Institutional average total score on the SAT. Students with superior academic backgrounds and preparation are more likely to attend college (source: CS).

FBS FOOTBALL DUMMY = Dummy variable indicating the presence or absence of a "big-time" Football Bowl Subdivision program on the campus (1 = *yes*, 0 = *no*). Intercollegiate athletics loom large on many campuses and our interest is if they affect enrollment (source: the National Collegiate Athletic Association [NCAA]).

FCS FOOTBALL DUMMY = Dummy variable indicating the presence or absence of a Football Championship Subdivision program on the campus (1 = *yes*, 0 = *no*). Nineteen of our HBCUs field FCS-level football programs, and we examine their enrollment impact with this dummy variable (source: NCAA).

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[3] Note that the number of high school graduates in an institution's home state and the institution's home area population (usually a metropolitan region) have a −0.08 simple correlation.

NO FOOTBALL DUMMY = Dummy variable indicating that the institution does not sponsor a football program (1 = *does not*, 0 = *does*). We ask here if having no football program (and this is true for nine HBCUs in our sample) impacts enrollment (source: Campus websites).

ATHLETIC EXPENDITURES = Total annual expenditures of the institution upon intercollegiate athletics (in 000000s). As opposed to fielding a football team, we examine here if the total volume of expenditures on intercollegiate athletics influences enrollment (source: U.S. Department of Education's Equity in Athletics Data Analysis 2021)

FLAGSHIP DUMMY = Dummy variable indicating flagship state university status (1 = *yes*, 0 = *no*). Once one controls for other variables, is flagship university status important for enrollment?

METROLEADER DUMMY = Dummy variable indicating metropolitan area leader status (1 = *yes*, 0 = *no*). Are urban locations and large institution size beneficial to enrollment?

REGIONAL DUMMY = Dummy variable indicating if an institution is primarily regional (1 = *yes*, 0 = *no*). Is regional public university status an advantage or a disadvantage in terms of enrollment?

All financial variables are real and reflect January 2018 prices.

THE DETERMINANTS OF HBCU CAMPUS ENROLLMENTS

Table 1 reports five regressions, three of which focus on the 50 HBCUs in our sample and two of which provide instructive comparative analyses for our sample of 182 PWIs.

Equations (1)–(3) in Table 1 analyze 14 annual FY enrollments at HBCUs between FY 2007 and FY 2020. We employ three different estimating models: Equation (1) is an ordinary least squares estimation, while Equation (2) employs fixed effects, and Equation (3) is a cross-section random effects estimate.

All three HBCU equations suggest that students are sensitive to the net price (after scholarships and grants) that they must pay to attend an institution. As principles of economics textbooks would suggest, higher net prices reduce campus enrollments. A 1.0 percent increase in the annual net price of attendance at a representative HBCU is associated with a 1.90 percent to 3.23 percent reduction in enrollment. The same sensitivity is not in evidence at PWIs as Equation (4) reveals.

The only campus demographic that emerges consistently as a differentiating influence on enrollments is the percent of the student body aged 25 or older. Historically, HBCUs have placed more emphasis upon recruiting and serving students graduating from high schools, and our results suggest they would be well-advised to broaden their focus. For our HBCUs, our estimate is that a 5.0 percent increase in the percentage of more mature students (25+ years) is associated with a 1.35 percent to 6.80 percent increase in enrollment. Similar dynamics are present at the PWIs.

PWI student bodies appear to be indifferent to the racial composition of their student bodies, at least within current ranges. Significant changes in the percentage of non-black students on a campus might elicit a different reaction.

One measure of the economic status of a student body is the percentage of Pell Grant students on a campus. We find some evidence that campuses with large proportions of Pell Grant recipients in their students have smaller enrollments. Our estimate is that a 5.0 percent increase in the number of undergraduate Pell Grant recipients results in a 0 percent to 1.10 percent lower enrollment. This is not surprising; we would expect campuses that attract larger proportions of lower-income students to have lower enrollments (holding other things constant) because these students are less likely to persist. PWI student bodies reflect similar considerations.

Holding other things constant, HBCU students favor institutions with higher graduation rates and campuses that expend greater proportions of their budgets on instruction and student services. Our estimate is that a 5.0 percent increase in a representative campus's graduation rate is associated with a 1.40 percent to 5.60 percent higher enrollment. Our PWI estimates are similar in magnitude.

With respect to expenditures on instruction, we estimate that a 1.0 percent increase in the proportion of major expenditures made on instruction is associated with a 0.89 percent to 2.21 percent increase in enrollment on a typical HBCU campus. A 1.0 percent increase in the proportion of student affairs

TABLE 1   The determinants of institutional enrollments: Historically black colleges and universities (HBCUs) versus PWIs, fiscal year (FY) 2007 to FY 2020

Variable	(1) HBCUs only ordinary least squares	(2) HBCUs only cross-section and period fixed effects	(3) HBCUs only cross-section random effects	(4) PWIs only ordinary least squares	(5) PWIs only cross-section and period fixed effects
Constant	7.7930 (0.5371)***	6.4063 (0.4600)***	5.4180 (0.4035)***	8.6364 (0.2643)***	8.9148 (0.2027)***
Number of Home State High School Graduates (000)	−0.0004 (0.0002)**	0.0045 (0.0027)	−0.0005 (0.0015)	0.0015 (0.0001)***	−0.0002 (0.0003)
Number of Home State Black People (000000)	0.1124 (0.0163)***	0.2450 (0.2708)	0.3186 (0.1263)**	−0.0032 (0.0073)	0.2811 (0.0436)***
Home State Unemployment Rate	−0.0174 (0.0138)	0.0344 (0.0117)***	0.0322 (0.0045)***	0.0231 (0.0053)***	−0.0066 (0.0024)***
Home Area Population (000)	0.0006 (0.000004)***	−0.0030 (0.0015)**	0.0006 (0.0004)	0.0089 (0.0034)***	0.0732 (0.0212)***
Percent White Students	0.0047 (0.0026)*	−0.0073 (0.0072)	−0.0002 (0.0049)	−0.0014 (0.0009)	−0.0010 (0.0012)
Percent Women Students	−0.0012 (0.0010)	0.00557 (0.0042)	0.0127 (0.0040)***	−0.0045 (0.0016)***	0.0036 (0.0024)
Percent 25+ Years Old Students	0.0136 (0.0015)***	0.0046 (0.0015)***	0.0027 (0.0014)*	0.0059 (0.0011)***	0.0048 (0.0009)***
Scholastic Aptitude Test Average	0.0009 (0.0003)***	−0.0002 (0.0002)	0.0001 (0.0002)	0.0003 (0.0002)*	0.0001 (0.000006)***
Percent Students Pell Grants	−0.0022 (0.0012)*	0.000004 (0.0023)	−0.0007 (0.0011)	−0.0012 (0.0016)	−0.0022 (0.0010)**
Net Tuition and Fees (000s)	−0.0190 (0.0059)***	−0.0323 (0.0054)***	−0.0309 (−0.0061)***	0.0088 (0.0023)***	−0.0057 (0.0020)***
Percent Expenditures on Instruction	0.0221 (0.0027)***	0.0089 (0.0022)***	0.0114 (0.0023)**	0.0051 (0.0010)***	0.0015 (0.0008)*
Percent Expenditures on Student Services	−0.0252 (0.0033)***	0.0122 (0.0034)***	0.0112 (0.0038)***	−0.0124 (0.0020)***	−0.0025 (0.0017)
Six-Year Graduation Rate, First-time, Full-Time Students	0.0112 (.0016)***	0.0028 (0.0016)*	0.0059 (0.0016)***	0.009 (0.0012)***	0.0025 (0.0008)***
Total Annual Athletic Expenditures (000000)	0.000006 (0.000001)***	0.000006 (0.000001)***	0.000004 (0.0000008)***		0.000003 (0.0000007)***

(Continues)

TABLE 1 (Continued)

Variable	(1) HBCUs only ordinary least squares	(2) HBCUs only cross-section and period fixed effects	(3) HBCUs only cross-section random effects	(4) PWIs only ordinary least squares	(5) PWIs only cross-section and period fixed effects
FBS Football Dummy				0.3142 (0.0345)***	
FCS Football Dummy	0.6348 (0.0281)***		0.9738 (0.1325)***	−0.0438 (0.0367)	
No Football Team Dummy	−0.4100 (0.0422)***		−0.5534 (0.1964)***	−0.1139 (0.0390)***	
Percent Students Doing No Distance Learning	0.0017 (0.0014)			−0.0045 (0.0007)***	
Flagship Dummy				0.3986 (0.0327)***	
Metro Leader Dummy				0.3260 (0.0248)***	
Number of Institutions	50	48	48	162	182
Number of Panels	369	487	487	1395	1909
R^2 adjusted	0.826	0.976	0.457	0.747	0.985
F-statistic	110.1***	281.7***	26.5***	213.9***	591.0***

Note. All standard errors have been White (1980) adjusted.
*** = statistically significant at the 0.000 level; ** = statistically significant at the 0.05 level; * = statistically significant at the 0.10 level.

spending also evokes a robust response—a 1.12 percent to 2.52 percent increase in enrollment. We note that Equations (4) and (5) tell us that this positive student affairs spending/enrollment relationship does not hold true on PWI campuses. The dichotomy between HBCUs and PWIs with respect to student affairs spending perhaps is understandable given the emphasis that HBCUs traditionally have placed upon providing extensive student services to their student bodies and the higher incomes of students at PWIs.

Our results indicate that HBCU campuses that value instructional and student services expenditures over administrative and other expenditures perform better in the enrollment wars. The same cannot be said for PWIs.

The influence of external demographic-economic conditions on institutional enrollments does not turn out to be as strong as one might hypothesize. We entered three external demographic variables—the number of high school graduates in the institution's home state, the number of individuals in that home state who self-identify as black, and the population of the individual's regional area. The only estimated coefficient for these variables that were consistent in sign across the three HBCU regressions was the number of black people in the institution's home state. The signs on the estimated coefficients here were positive as one would expect, but only two of the three coefficients were statistically significant. If we pay attention only to the statistically significant coefficients, then our estimate is that a 1.0 million increase in the number of black individuals in a state is associated with an 11.24 percent to 31.86 percent increase in the enrollment of an HBCU campus.

The positive, statistically significant estimated coefficients on the unemployment rate variable in two of the three estimates provide support for the notion that rising unemployment rates reduce the opportunity cost of attending college for students, but the ordinary least squares estimate in Equation (1) contradicts this. Thus, we do not offer an estimate of the impact of a change in the unemployment rate on enrollments.

Intercollegiate athletic programs have been described as the "front porch" of academic institutions (Mitchell 2018), and they occupy important roles on campuses. We examine their influence in two ways. First, in Equations (1) and (3), we attempt to capture a portion of this phenomenon by inserting two dummy variables relating to football programs—one indicating whether the campus operates an NCAA FCS-level football program (21 of our institutions do) and the second whether it does not field any football team (nine or our institutions do not). The estimated coefficients for the FCS-level football dummy variables in Equations (1) and (3) were large and statistically significant. However, our results also reveal that not fielding a football team at any level can have negative consequences for enrollment.

The second approach to estimating the influence of intercollegiate athletics is contained in Equations (2) and (3), where we view HBCUs' intercollegiate athletic activities through the lens of their total annual expenditures on athletics. The results indicate that there are enrollment payoffs attached to spending more money on athletics; bigger is apparently better in intercollegiate athletics on HBCU campuses. However, this aggregate spending stimulus on enrollment is small and an incremental $1.0 million of spending on intercollegiate athletics yields only a small fraction of one percent in enrollment gains. It appears that the level of an HBCU's athletic competition is more important to its students than the amount being spent on their teams.

In Equation (1), we examine the impact of the absence of distance learning opportunities on HBCU campuses.[4] This analysis comes at a cost, however, because IPEDS began to publish distance learning information only in FY 2012, so we lose some observations. In any case, we do not find a statistically significant relationship between distance learning and enrollments at HBCUs. Plausibly, our results might differ if the data included years involving the COVID-19 pandemic. Notably, our results differ for PWIs, where each 1.0 percent increase in the number of students not doing any distance learning reduces campus enrollment by an estimated 0.45 percent.

Another way in which HBCUs and PWIs differ in terms of the influences on their enrollments is with respect to the importance of SAT scores. Higher average students' SAT scores are associated with larger enrollments at PWIs; the results are mixed at HBCUs.

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[4] IPEDS did not begin to report distance learning data until FY 2011, and this is why there are fewer panel observations in Equation (1) than in Equations (2) and (3).

No HBCU fields a "big-time" FBS football program. However, for HBCUs, we estimate that supporting an NCAA FBC-level program generates an 88.66 percent enrollment advantage per campus and that not fielding any football team confers a 33.63 percent enrollment disadvantage (both estimates holding other things equal). Thus, intercollegiate athletics (and specifically football) loom large in terms of their enrollment impacts at HBCUs.

In Equation (4), for PWIs, we entered two dummy variables that reflected the categories of institutional status and missions—one reflecting flagship status and the other indicating large, urban metro leader status. The excluded category here was regional institutions, and therefore the estimated coefficients reflect the value to a PWI of *not* being a regional institution. It is apparent that institutional type matters. *Ceteris paribus*, we estimate that being a flagship institution rather than a regional campus offers a 51.03 percent enrollment advantage, while the advantage for the large, urban metro leader institutions over regional campuses is even larger at 61.46 percent.

Equation (2) for HBCUs and Equation (5) for PWIs are identical in terms of specification. We can use a Chow test to determine if the estimated coefficients in the two equations are different in a collective statistical sense. The critical F-statistic for a 0.001 level of statistical significance in our case is 1.487[5]; our computed F-statistic is 54.977, and hence we can reject the null hypothesis that asserts that there is no statistically significant difference between the two estimating equations. That is, statistically speaking, the determinants of enrollments at HBCUs differ from those at PWIs.

Finally, we perform a counterfactual experiment and ask what the enrollment of HBCUs would be if they were treated/regarded the same by students and society as they do PWIs. We do this by inserting the median characteristics of our HBCUs into Equation (5) for PWIs. What emerges is an estimate of what the enrollments of the typical HBCU would be if students and society treated them as if they were PWIs. Our estimate is that in this world the average HBCU would have FY enrollment of 4058—30.5 percent higher than its actual median value of 3110 in our HBCU sample.

Reversing this counterfactual logic, we can insert median PWI characteristics into Equation (2) for HBCUs. If students and society treated PWIs the way they do HBCUs, then our predicted PWI enrollment would be only 6443, which is only 49.5 percent of the actual median PWI enrollment of 13,022 in our sample. Thus, there is an implicit enrollment penalty attached to HBCU status. Current and prospective students (and society) do not treat HBCUs and PWIs the same.

CONCLUSION

HBCUs fulfill vital roles inside black communities and in the United States as a whole. One persuasive piece of evidence in favor of this proposition is the list of HBCU graduates, which includes distinguished individuals such as Martin Luther King, Kamala Harris, Jesse Jackson, Spike Lee, Sean Combs, Stephen A. Smith, Will Packer, Debbie Allen, Oprah Winfrey, Thurgood Marshall, Langston Hughes, Booker T. Washington, Marian Wright Edelman, Toni Morrison, and Samuel L. Jackson. HBCUs also have assembled enviable records in terms of providing their graduates with upward social and economic mobility.

Even so, there has been comparatively little rigorous empirical work that has examined the competitive positions of HBCUs, their decision making, and their performance. The focus of this article has been on explaining the enrollments of individual HBCUs. We find that individual campus characteristics typically have more to do with HBCU campus enrollments than external factors such as demography and economic conditions (though this is less true for PWIs). This implies that individual campus decision making and leadership are vitally important to the enrollment prosperity of the typical HBCU.

While this article plows some new empirical ground, a host of topics with respect to HBCUs remain to be investigated. Among them are a more intensive look at how intercollegiate athletic activities and expenditures impact enrollments; an examination of HBCU student retention and graduation performance; what factors contribute to HBCUs providing upward income mobility to their graduates; how student affairs

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[5] We have $k = 15$ degrees of freedom in the numerator and $487 + 1901 - 30 = 2366$ degrees of freedom in the denominator.

expenditures translate to institutional performance; explaining why the connection between HBCU enroll-ments and external demographic and economic conditions is not stronger; and the role that student debt plays in HBCU enrollments.

Thus, it is fair to observe that only a portion of the proverbial veil has been removed.

APPENDIX A
HBCUs in the sample

Alabama A&M University (AL)
Alabama State University (AL)
Albany State University (GA)
Alcorn State University (MS)
Bethune Cookman University (FL)
Bowie State University (MD)
Central State University (OH)
Coppin State University (MD)
Delaware State University (DE)
Dillard University (LA)
Elizabeth City State University (NC)
Fayetteville State University (NC)
Fisk University (TN)
Florida A&M University (GA)
Fort Valley State University (GA)
Grambling State University (LA)
Hampton University (VA)
Howard University (DC)
Jackson State University (MS)
Kentucky State University (KY)
Lane College (TN)
Miles College (AL)
Mississippi Valley State University (MS)
Morehouse College (GA)
Morgan State University (MD)
North Carolina A&T University (NC)
North Carolina Central University (NC)
Norfolk State University (VA)
Paul Quinn College (TX)
Prairie View A&M University (TX)
Rust College (MS)
Saint Augustine's University (NC)
Savannah State University (GA)
Shaw University (NC)
South Carolina State University (SC)
Southern University (LA)
Spelman College (GA)
Stillman College (AL)
Talladega College (AL)
Tennessee State University (TN)
Texas Southern University (TX)
Tougaloo College (MS)
University of Arkansas at Pine Bluff (MD)
University of Maryland Eastern Shore (MD)

Virginia State University (VA)
Virginia Union University (VA)
Wilberforce University (OH)
Wiley College (TX)
Winston-Salem State University (NC)
Xavier University (LA)

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