



THE IMPORTANCE OF HBCUS FOR FLORIDA

How Black Students from Florida and the State Benefit from Historically Black Colleges and Universities

NOVEMBER 2023









About Helios Education Foundation

Helios Education Foundation exists to support postsecondary attainment for low-income and under-represented communities in Arizona and Florida. Driven by our fundamental beliefs of Community, Equity, Investment, and Partnership, Helios has invested more than \$300 million in partnerships and initiatives focused on improving education outcomes in the two states we serve.

About The Institute of Higher Education at the University of Florida

Founded in 1968, the Institute of Higher Education (IHE) at the University of Florida conducts cutting-edge research and offers data-driven recommendations for higher education administrators and policymakers seeking to better understand the critical problems facing higher education at the local, state, and national level. IHE partners with individual colleges and state systems to provide rigorous and innovative assessment of current practices and policies aimed at improving student access and success, with a special emphasis on partnering with Florida College System institutions.



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RESEARCH BRIEF

The Importance of HBCUs for Florida

Introduction

This is the second brief in a two-part series on the impact of college-going for Black students in Florida.

Helios Education Foundation and the Institute of Higher Education at the University of Florida have partnered to better understand the return on investment of college-going and college choice for Black students in Florida, one of two states in which Helios works to strengthen education policies, systems, and outcomes.

Relatively little is known regarding the individual and state-level implications of improving college enrollment and attainment among Black students in the state of Florida. Accordingly, our partnership and research have—using a uniquely rich dataset—generated a pair of complementary research reports that detail findings on the ROI of college enrollment and choice for Black students and for the state of Florida. *These reports are available upon request from Helios Education Foundation*. The project has also yielded a two-part series of summary briefs that derive key findings from the research and contextualize them for policymakers. The first brief in the series, which focuses on a broader range of colleges beyond HBCUs, is available here at https://www.helios.org/how-we-work/research-and-evaluation/.

The ROI of Florida's Students Enrolling in Historically Black Colleges and Universities

An important subset of this research is an inquiry into the contributions of Historically Black Colleges and Universities (HBCUs), both in terms of individual outcomes for Black students in Florida and for the state as a whole. In this second brief, we focus more specifically on these impacts associated with HBCUs, guided by the following research questions:

- How does initially enrolling in an HBCU impact Florida's Black high school students' postsecondary, economic, and financial success?
- How is the state of Florida impacted by its Black high school students initially enrolling in an HBCU?



Why This Research Matters

The insights generated by this research show Florida policymakers the potential economic benefits of investing in the community college and university systems. At the individual level, these benefits manifest as increased household earnings and other advantageous financial outcomes. Benefits at the individual level add up to significant returns for the state, in terms of revenues, expenditures, and social benefits. Taken as a whole, the research shows that investments in enhancing college enrollment—including at HBCUs— among Black high school students, particularly in-state college enrollment, should be a priority for the state of Florida.

About The Data

This project used of one of the largest and richest student-level datasets in the U.S., following Black students throughout the state of Florida from high school, through college, and tracking their financial outcomes in November 2017, around age 30. The breadth and depth of the data, described below, allow us to use rigorous methods and consider a wide range of impacts related to initial HBCU enrollment.

The base data consist of all Black high school students in the state of Florida who took the SAT between 2004 and 2010. These data included test scores, high schools enrolled, basic demographics (including parental income and education), and the individual colleges to which students sent their SAT score, which represents a validated proxy for college applications.¹

To create the analytic dataset, we merged SAT data with National Student Clearinghouse data, which contain information about college enrollment spells, any degrees earned, and the types of degrees earned.

The final step to create the analytic dataset included merging credit bureau data, which has hundreds of financial variables for the students in a November 2017 snapshot, when the former students are around age 30, including an estimated household income, credit score, student loan balance and repayment, default, credit card debt, mortgages, and zip code of residence.

These data give two unique advantages relative to similar analyses on the impacts of college choice. First, it enables comparisons of students who are very similar to one another—same demographics and academics, applying to the same set of colleges—but one student enrolls in an HBCU, and another does not. Second, it enables the analysis to go beyond comparing college completion outcomes and a measure of individual wages by observing an extensive set of outcomes around age 30, including a comprehensive accounting of students' economic and financial status along with their state of residence.

¹Pallais, A. (2015). Small differences that matter: Mistakes in applying to college. *Journal of Labor Economics*, 33(2), 493–520; Smith, J. (2018). The sequential college application process. *Education Finance and Policy*, 13(4), 545–575.

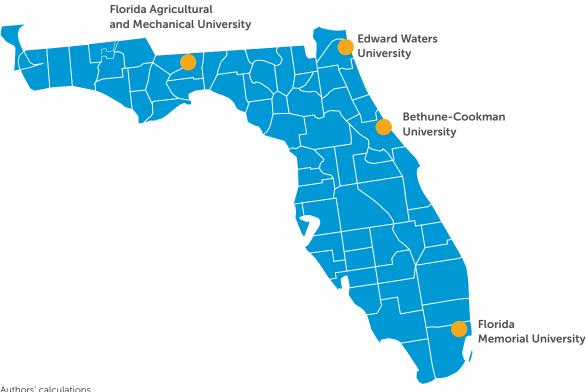
HBCUs and Black Students in Florida

HBCUs represent an important option for Black students in the state who are considering education after high school. Among the 96,710 Black high school students who took the SAT and graduated from a high school in Florida between 2004 and 2010, approximately 35 percent (35,380 individuals) sent an application to at least one HBCU in the U.S.² Of these applicants, 40 percent initially enrolled at an HBCU.

In total, 14.5 percent of Black SAT-takers in Florida initially enrolled at an HBCU, many in Florida's HBCUs. Among all non-HBCU enrollees in the sample, 46.9 percent attended four-year institutions and 42.2 percent enrolled at two-year institutions. By contrast, 99.6 percent of HBCU enrollees attended four-year institutions. This suggests that HBCUs offer Black students viable four-year alternatives to attending community college.

HBCUs play a vital role in Florida's higher education systems. Florida is home to four HBCUs, but students also enroll in HBCUs beyond the borders of Florida. Black students who are enrolled at these four institutions account for 16 percent of all Black college students in Florida.³ This percentage indicates that Florida HBCUs educate a large share of Black college students in the state; a further illustration of this is the fact that Florida HBCUs graduate more Black students in STEM disciplines than all other Florida universities combined.4

HBCUs in Florida



²Authors' calculations.

³Authors' calculations.

⁴Authors' calculations.



The Benefits of Enrolling in an HBCU for Black Students in Florida

Impact On Academic Outcomes

Students who begin at an HBCU are 54.7 percentage points more likely to enroll in a four-year college than similar students who apply to HBCUs but choose not to enroll in one. At the same time, enrolling at an HBCU decreases the probability of enrolling at a two-year institution by 41.3 percentage points, reflective of the fact that most HBCUs are four-year institutions.

Additionally, enrollment at an HBCU is associated with increased likelihood that Black students will complete college and earn a degree. The probability of completing college increases by 7.9 percentage points for Black students enrolled at an HBCU, an increase that is a function of bachelor's degree completion. Attending an HBCU increases the probability that a Black student will earn a bachelor's degree by 13.5 percentage points (about a 40 percent increase).

Taken together, the benefits associated with HBCU enrollment are compelling and clear.

Key Impacts of HBCU Enrollment





\$2,700

increase in average estimated household earnings in Florida

\$60,000

net present value of HBCU enrollment after 35 years

RESEARCH BRIEF

Impact On Financial Outcomes

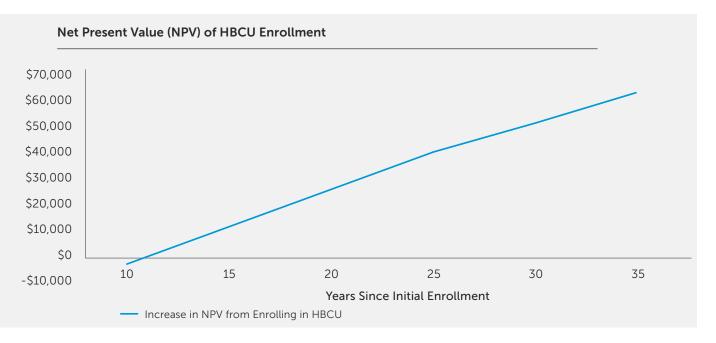
For Black students in Florida, enrolling at an HBCU is an investment that implies both higher up-front costs (e.g., tuition) and greater long-term gains (e.g., higher household incomes).

It is true that enrolling at an HBCU is more expensive than some other college options. This is, in part, because enrollment at a two-year college is a common alternative to HBCU enrollment; it is also because students who attend HBCUs are more likely to earn a bachelor's degree, which requires a longer period of enrollment and more tuition payments. HBCU enrollment increases the probability that Black students will still be making student loan payments around age 30 by 12.1 percentage points.

At the same time, though, HBCUs have the potential to positively change Black students' employment opportunities, graduate school enrollment, and their ability to repay loans. Importantly, HBCU enrollment increases the estimated household income for Black students in Florida by 6.8 percent. HBCU enrollment is associated with a 30 percent decrease in declarations of bankruptcy around age 30. While this increase in earnings comes at the expense of higher tuition (compared to other college options), after 15 years, the net present value of HBCU enrollment turns positive because the higher household incomes overtake those higher tuitions. And, after 35 years, steady increases result in a \$60,000 net present value of HBCU enrollment.

NET PRESENT VALUE

Net present value is a measure that captures the total value for a student of investing in going to college. Net present value is the discounted sum of streams of estimated income in years not enrolled in college less net tuition for each year enrolled in college. A positive net present value means that students will likely benefit financially from investing in going to college.



Notes: Figure shows regression results of the difference in net present values between students enrolling in an HBCU relative to those who do not. Net present value is the discounted sum of streams of estimated income in years not enrolled in college less net tuition for each year enrolled in college. Regressions include controls for sex, parental income and education, SAT, SAT attempts, AP exams taken, cohort and high school fixed effects, and controls for score sending portfolio interacted with SAT scores. Data include all self-identified Black SAT takers in the 2004-2010 Florida high school graduating cohorts who send at least one SAT score to an HBCU.

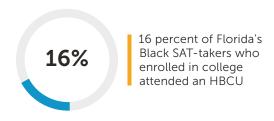


How HBCUs Can Benefit Florida

HBCU enrollment leads to advantageous financial and social outcomes for individuals that, in aggregate, have the potential to benefit Florida immensely. These benefits to the state are largely driven by increased average household incomes that are associated with degree completion (especially bachelor's degree completion). Overall, enrolling at an HBCU increases yearly estimated household earnings by 6.8 percent, or approximately \$3,600. But not all individuals who initially enroll at an HBCU live in Florida around age 30. Adjusting for individuals who live elsewhere, HBCU enrollment increases the average estimated yearly household earning in Florida by \$2,707 per HBCU enrollee.

Not only does enrolling at an HBCU increase average estimated household earnings, but it also increases the likelihood of individuals becoming comparatively high earners in Florida. For example, enrolling in an HBCU increases the probability of living in Florida and earning more than the 50th percentile of Black SAT takers by 7.2 percentage points (38 percent). Similarly, HBCU enrollment increases the probability that an individual's earnings will live in Florida and exceed the 75th percentile of Black SAT takers by 2.7 percentage points (14 percent).

The significance of increased household incomes is multi-faceted. Higher incomes have the potential to strengthen the financial position of individual Floridians and their families, and, at the same time, higher incomes correspond (on average) with higher rates of consumer spending and consumption.⁵ In turn, increased consumption strengthens Florida's economic condition and increases state sales tax revenues.⁶



⁵Rothwell, J. (2015). What colleges do for local economies: A direct measure based on consumption. *Brookings Institute Report; Fisher, J. and Hardy, B.(2022).* Consumption volatility across the U.S. income distribution is highest among low-income workers and their families. *Center for Equitable Growth.* ⁶The Florida sales tax rate is currently 6 percent.

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By way of example, if individuals spend all the additional \$2,707 that results from enrolling in an HBCU (previously discussed), then that corresponds to \$162 in additional sales tax annually per HBCU enrollee.

There are other potential benefits for Florida that are ancillary to the increased degree attainment and higher earnings associated with HBCU enrollment. These include reduced expenditures on social and economic assistance programs, improved health outcomes and lower mortality rates, better education outcomes for children, better workforce productivity, and increased civic participation.^{7,8}



⁷Heckman J. J., Humphries, J. E., & Veramendi, G. (2018). The nonmarket benefits of education and ability. *Journal of Human Capital*, 12(2); Dee, T. S. (2004). Are there civic returns to education? *Journal of Public Economics*, 88, 1697-1720; Ma, Jennifer and Matea Pender (2023), *Education Pays* 2023, New York: College Board.; Buckles, K., Hagemann, A., Malamud, O., Morrill, M., & Wozniak, A. (2016). The effect of college education on mortality. *Journal of Public Economics*, 50, 99-114; Currie, J. and Moretti, E. (2003). Mother's education and the intergenerational transmission of human capital: Evidence from college openings. *The Quarterly Journal of Economics* 118(4), 1495-1532; Moretti, E. (2004). Workers' education, spillovers, and productivity: Evidence from plant-level production functions. *American Economic Review*, 94(3), 656-690.

⁸The exact benefit to the state and its economy requires additional and unavailable individual-level data on state taxes, consumption, social assistance programs, and more.



Policy Implications and What Florida Can Do

The findings from this analysis suggest that HBCU enrollment has significant beneficial impacts for Black students and for Florida. HBCU enrollees are more likely to earn a degree, more likely to have higher annual earnings, and to experience corollary benefits from their educational attainment and earnings. As such, HBCUs, including Florida's HBCUs, can be understood as engines of social and economic improvement, to the extent that investment in these institutions is likely to produce meaningful economic returns for the state.

There is incentive for Florida to invest in increasing in-state HBCU enrollment among Black high school graduates.

Students who enroll in-state are more likely to stay in-state after college, including Florida's Black SAT-takers. Overall, HBCU enrollees were found to be less likely to live in Florida around age 30. This is because students who attend an out-of-state HBCU are substantially less likely to live in Florida around age 30. By contrast, students who enroll in one of Florida's in-state HBCUs are slightly more likely to live in Florida around age 30. This represents a key consideration for state policymakers seeking to determine the benefits of investing in HBCUs.

There is incentive for Florida to sustainably fund HBCUs in the state.

HBCUs in Florida face capacity constraints and—despite the state increasing investments to historically high levels—limited funding. These constraints limit the number of students they are able to serve, serve well, and, therefore, the beneficial impacts that emanate from HBCU enrollment.

HBCU enrollment for a given student increases Florida's postsecondary expenditures by \$5,863 relative to analogous expenditures for students who do not enroll in an HBCU. However, the significant increases to bachelor's degree completion and increased household earnings over time suggest a net benefit both for Black students and the state of Florida.

APPENDIX

Supplementary Data Tables and Methodological Notes



Analytic Strategy

Our analytic strategy compares Black high school students in Florida who attend an HBCU in any state to those who do not, after accounting for differences in students' academic background, demographics, and stated interest in specific colleges (i.e., where they applied). To achieve this aim, we followed the methods of Dale and Krueger (2002), who accounted for unobservable variables related to college choice that often lead to selection bias by accounting for the college application portfolio. Specifically, we identified students who applied to the same set of HBCUs and non-HBCUs. By doing so, we compared students with the same interests in HBCUs, which is typically unobserved given that some students interested in HBCUs subsequently enroll in an HBCU while others enroll in non-HBCUs. To create an appropriate comparison group, our analyses focused on Black students who applied to at least one HBCU.

The ROI analysis only considers state expenditures per student at the institution level and does not include other state investments such as financial aid programs. The exact benefit to the state and its economy requires additional and unavailable individual-level data on state taxes, consumption, social assistance programs, and more.



Table 1: Student Summary Statistics

	All SAT Takers	Did Not Apply to HBCU	Applied to HBCU	Did Not Enroll in HBCU	Enrolled in HBCU
	(N = 96,710)	(N = 61,330)	(N = 35,380)	(N = 82,667)	(N = 41,043)
Female	0.575	0.542	0.633	0.571	0.599
Parental High	est Education				
AA	0.299	0.292	0.311	0.299	0.299
BA or More	0.313	0.314	0.310	0.305	0.357
Missing	0.119	0.133	0.097	0.123	0.096
Parental Inco	me				
Income \$50K - \$100K	0.164	0.163	0.165	0.161	0.180
Income Greater than \$100K	0.046	0.049	0.043	0.045	0.053
Income Missing	0.307	0.331	0.267	0.313	0.277
Exams					
Number of AP Exams	1.050	1.094	0.975	1.068	0.948
SAT Attempts	1.627	1.583	1.704	1.614	1.703
SAT Score	876.0	880.0	869.2	877.7	866.1
Initial College	Characteristi	cs			
HBCU	0.145	0.044	0.321	0.000	1.000
Florida HBCU	0.117	0.035	0.259	0.000	0.803
Any College	0.907	0.895	0.928	0.892	1.000
Four-Year	0.546	0.509	0.609	0.469	0.996
Two-Year	0.361	0.386	0.319	0.422	0.004
Public	0.756	0.755	0.757	0.771	0.665
For-Profit	0.014	0.016	0.012	0.017	0.000
In-State Tuition and Fees	\$5,582	\$5,736	\$5,326	\$5,324	\$6,913
Out-of-State Tuition and Fees	\$12,601	\$12,604	\$12,596	\$12,246	\$14,434
Graduation Rate	41.420	41.789	40.807	41.582	40.585
Average SAT of Enrollees	1072	1118	1012	1141	907
Admit Rate	55.790	54.680	57.317	54.760	58.581



Table 1: Student Summary Statistics Continued

	All SAT Takers	Did Not Apply to HBCU	Applied to HBCU	Did Not Enroll in HBCU	Enrolled in HBCU						
College Comp	oletion										
Any Degree	0.457	0.454	0.462	0.449	0.505						
AA	0.113	0.118	0.104	0.123	0.053						
BA	0.347	0.339	0.361	0.329	0.453						
Student Loans											
Took Any Loans	0.646	0.614	0.698	0.624	0.769						
Took Government Loans	0.627	0.597	0.678	0.606	0.746						
Took Private Loans	0.115	0.108	0.127	0.110	0.143						
Loan Balance	\$30,738	\$28,195	\$35,005	\$28,650	\$42,457						
Government Student Loan Balance	\$28,272	\$25,870	\$32,301	\$26,367	\$38,958						
Private Student Loan Balance	\$2,466	\$2,325	\$2,704	\$2,282	\$3,499						
Post-College	Outcomes										
Estimated Household Income	\$53,838	\$53,781	\$53,933	\$53,605	\$55,145						
Credit Score > 600	0.500	0.522	0.464	0.510	0.442						
Credit Score > 700	0.192	0.211	0.160	0.201	0.142						
Any Mortgage	0.075	0.076	0.073	0.077	0.064						
Past Due Credit Card Debt	6.972	6.620	7.569	6.861	7.608						
Ever Bankrupt	0.007	0.007	0.007	0.007	0.006						
Lives in Home State	0.823	0.823	0.824	0.825	0.812						

Notes: Uses College Board test-takers in the 2004-2010 Florida high school graduating cohorts who self-identify as Black. College outcomes measured six years after high school graduation through National Student Clearinghouse. Student loans and post-college outcomes as of November 2017 from a credit bureau. Current and archived data on Florida's SAT-takers are available at https://reports.collegeboard.org/sat-suite-program-results.

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Table 2: Impact of Enrolling in HBCU on Initial College Characteristics

	Any College	Four-Year College	Two-Year College	Public College	For-Profit College	Graduation Rate	Average SAT of Enrollees	Admit Rate	In-State Tuition and Fees	Out-of-State Tuition and Fees
Enrolled in HBCU	0.134***	0.547***	-0.413***	-0.095***	-0.014***	-1.312***	-209***	1.581***	\$2,112***	\$2,501***
	(0.003)	(0.004)	(0.005)	(0.005)	(0.001)	(0.165)	(1.059)	(0.214)	(70.448)	(57.018)
Observations	35,128	35,128	35,128	35,128	35,128	32,254	18,269	17,698	32,258	32,258
R-squared	0.139	0.479	0.372	0.104	0.036	0.354	0.427	0.217	0.154	0.369

Notes: Data include all self-identified Black SAT takers in the 2004-2010 Florida high school graduating cohorts who send at least one SAT score to an HBCU. Regressions include controls for sex, parental income and education, SAT, SAT attempts, AP exams taken, cohort and high school fixed effects, and controls for score sending portfolio interacted with SAT scores. College characteristics (outcomes) from IPEDS. Standard errors in parentheses. ""p<0.01, "p<0.05, "p<0.1.

Table 3: Impact of Enrolling in HBCU on College Completion

	Any Degree	AA Degree	BA Degree
Enrolled in HBCU	0.079***	-0.057***	0.035***
	(0.006)	(0.004)	(0.005)
Observations	35,128	35,128	35,128
R-squared	0.162	0.052	0.207

Notes: Data include all self-identified Black SAT takers in the 2004-2010 Florida high school graduating cohorts who send at least one SAT score to an HBCU. Regressions include controls for sex, parental income and education, SAT, SAT attempts, AP exams taken, cohort and high school fixed effects, and controls for score sending portfolio interacted with SAT scores. College completion outcomes from National Student Clearinghouse. Standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table 4: Impact of Enrolling in HBCU on Student Loans

	Positive Loan Balance	Positive Government Loan Balance	Positive Private Loan Balance	Loan Balance	Government Student Loan Balance	Private Student Loan Balance
Enrolled in HBCU	0.121***	0.117***	0.039***	13,327***	11,800***	1,526***
	(0.006)	(0.006)	(0.004)	(615)	(578)	(197)
Observations	33,676	33,676	33,676	33,676	33,676	33,676
R-squared	0.086	0.085	0.043	0.101	0.094	0.032

Notes: Data include all self-identified Black SAT takers in the 2004-2010 Florida high school graduating cohorts who send at least one SAT score to an HBCU. Regressions include controls for sex, parental income and education, SAT, SAT attempts, AP exams taken, cohort and high school fixed effects, and controls for score sending portfolio interacted with SAT scores. Outcomes from a credit bureau, measured in 2017. Standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1.



Table 5: Impact of Enrolling in College on Post-College Outcomes

	Estimated Household Income	Credit Score > 600	Credit Score > 700	Has a Mortgage	Past Due Credit Card Debt	Ever Bankrupt	Lives in Florida at 30
Enrolled in HBCU	0.168***	-0.011*	-0.019***	0.003	0.227	-0.002*	-0.019***
	(0.004)	(0.006)	(0.005)	(0.003)	(0.753)	(0.001)	(0.005)
Observations	33,611	34,056	34,056	34,369	34,263	34,369	34,369
R-squared	0.183	0.088	0.080	0.055	0.017	0.017	0.058

Notes: Data include all self-identified Black SAT takers in the 2004-2010 Florida high school graduating cohorts who send at least one SAT score to an HBCU. Regressions include controls for sex, parental income and education, SAT, SAT attempts, AP exams taken, cohort and high school fixed effects, and controls for score sending portfolio interacted with SAT scores. Outcomes from a credit bureau, measured in 2017. Standard errors in parentheses. ""p<0.01, "p<0.05, "p<0.1.

Table 6: Outcomes in Florida

	Lives in Florida at 30	Any Degree, Lives in FL at 30	AA Degree, Lives in FL at 30	BA Degree, Lives in FL at 30	Estimated Household Income, Lives in FL at 30	Estimated Household Income, > 50 th percentile, Lives in FL at 30	Estimated Household Income, > 75 th percentile, Lives in FL at 30	Estimated Household Income, > 90 th percentile, Lives in FL at 30	State Expenditures	State Expenditures
Enrolled in HBCU	_	0.052***	-0.052***	0.102***	2,707***	0.072***	0.027***	-0.002	5,863***	_
	_	(0.006)	(0.004)	(0.005)	(336)	(0.006)	(0.005)	(0.003)	(189)	_
Enrolled in Florida HBCU	0.018***	_	_	_	_	_	_	_	_	9,657***
	(0.005)	_	_	_	_	_	_	_	_	(191)
Enrolled in Non-Florida HBCU	-0.190***	_	_	_	_	_	_	_	_	11,460***
	(0.009)	_	_	_	_	_	_	_	_	(340)
Observations	34,346	35,105	35,105	35,105	34,404	35,105	35,105	35,105	35,105	35,105
R-squared	0.072	0.098	0.050	0.130	0.049	0.069	0.070	0.049	0.314	0.379

Notes: Data include all self-identified Black SAT takers in the 2004-2010 Florida high school graduating cohorts who send at least one SAT score to an HBCU. Regressions include controls for sex, parental income and education, SAT, SAT attempts, AP exams taken, cohort and high school fixed effects, and controls for score sending portfolio interacted with SAT scores. Outcomes from a credit bureau, measured in 2017. Standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1.



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