

## Chapter 6

# Benchmarking HBCU Efficiency: Beyond Retention

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### **ABSTRACT**

*HBCUs have played a vital role in the US higher education sphere. As initiatives to increase student retention move forward, the reality of funding constraints means that examining efficiency and effectiveness at HBCUs remains a vital part of institutional growth. This chapter presents a two-stage Data Envelopment Analysis (DEA) methodology as a tool to benchmark the relative efficiency of HBCUs. DEA is a quantitative, non-parametric technique used to measure efficiency, and has had a robust history as a benchmarking tool due to its ability to identify top performing organizations as well as less efficient peers. Using Department of Education data, the most efficient and effective HBCUs are identified. Implications for the use of DEA as a benchmarking tool are discussed.*

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It is clear from the voluminous previous literature that Historically Black Colleges and Universities (HBCUs) achieve important student outcomes (Dannenberg, 2014; Gasman et al., 2007; Perna et al., 2009; Price, Spriggs, & Swinton, 2011). Traditional evaluation of HBCUs has emphasized graduation and retention, but emphasis by federal policy makers has shifted to both efficiency and the repayment of federal student loans (Dannenberg, 2014). HBCUs are placed squarely in the center of these foci. HBCUs also have suffered disproportionately from state budget cuts and sometimes lack the necessary infrastructure to raise funds (Gasman, 2009). Given increasing scrutiny by policy makers and thin budgets, and operating efficiently is critical for HBCUs.

Efficiency, in this context, does not mean cost cutting, but maximizing what is possible with available. HBCUs have a long history of prioritizing this, and tend to be slightly more efficient than their non-HBCU counterparts. However, there is high variance in efficiency among HBCUs (Coupet & Barnum, 2010), indicating that they are several HBCUs that would benefit from improved efficiency. HBCUs are a unique set of institutions with common goals and shared challenges (Coupet, 2013), but also heterogenous institutions, so universities looking to improve efficiency can look to other HBCUs as a framework for improvement. This process is known as benchmarking (Jackson & Lund, 2000).

Benchmarking can help improve the pursuit of organizational goals, including efficiency, by identifying similar institutions from which to learn (Post & Sprunk, 1999). While effectiveness can be built in to efficiency measurements, the most efficient institutions often cannot be considered worthy of emulation unless they are both effective and efficient (Golany & Tamir, 1995; Chiao, Lan, & Yen, 2010). Recent federal initiatives have emphasized the extent to which students at a given institution are able to repay student loans as a mark of effectiveness and continued federal support.

For HBCUs, this means that it is important to maximize resources in graduating and retaining students, but that being effective means that an acceptable number of students are able to repay their student loans. Federal financial penalties are implemented when more than 15% of students default on student loans in consecutive years (Education, 2014). When benchmarking, HBCUs should look not only to efficient peers, but to peers that are both efficient (the best student outcomes given limited resources) and effective.

How can HBCUs use benchmarking to identify peers that are both efficient and effective? This chapter uses Data Envelopment Analysis (DEA), a nonparametric quantitative methodology based in linear mathematical programming, to benchmark the efficiency and effectiveness of HBCUs. It does this in two stages. First, HBCUs

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